

5 April 2022

Environmental Impact Classification – Pursuant to Section 98 of the *Petroleum and Geothermal Energy Act 2000* – Hot Rocks Logistics Support Hub – Statement of Environmental Objectives, Precise Outcomes, March 2022.

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 of low, medium or high environmental impact.

The classification must be made on the basis of:

- The prepared EIR;
- 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 - Energy Resource Divisions (DEM-ERD) web page:
<https://www.petroleum.sa.gov.au/regulation/environmental-register>; and
- Comment received from relevant Government departments in accordance with established administrative arrangements between these departments and DEM-ERD.

This document summarises the classification made by DEM-ERD on the *Hot Rocks Logistics Support Hub – Statement of Environmental Objectives, Precise Outcomes, March 2022*. This classification is based on information provided in the EIR prepared by Precise Outcomes.

ACTIVITY CLASSIFICATION SUMMARY

1. From an analysis of the potential environmental significance of the events and potential impacts associated with the proposed activities against the classification criteria referred to above (assessment provided as Attachment 1), these regulated activities have been classified as **low impact**.
2. Of 30 potential environmental events assessed, 30 were deemed to be of low potential environmental significance, none of medium potential environmental significance and none of high potential environmental significance. This is due to the fact that appropriate management measures will be implemented by Precise Outcomes to avoid or mitigate any potential environmental consequences.

CONSULTATION

1. For a low impact classification, DEM-ERD consults with the Department of Environment, Water (DEW) and the Environment Protection Authority (EPA) on the impact classification level in accordance with relevant administrative arrangement's dated 11 November 2005 and 25 June 2012 respectively.
2. Concurrence received from DEW and the EPA on 13 December and 23 December 2021 respectively agreed with the classification of **low impact**.

3. In accordance with Section 101 of the Act, activities classified as low impact require DEM-ERD to undertake consultation with relevant government agencies. This consultation period was for at least 20 business days. Consultation was initiated on 13 January 2022 and closed on 10 February 2022.
4. Comments received from this consultation are tabled in Appendix F of the EIR whereby all reasonable comments within scope need to be adequately addressed. DEM-ERD are satisfied that all comments raised during consultation have been adequately addressed.

*The Environmental Register can be accessed via the webpage at - <https://www.petroleum.sa.gov.au/regulation/environmental-register#SEO>

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



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

				PREDICTABILITY						MANAGEABILITY								
REF	TYPE OF IMPACT	EVENTS	POTENTIAL CONSEQUENCES	SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS	SIGNIFICANCE	COMMENTS	ENVIRONMENTAL SIGNIFICANCE
Natural Environment Impacts																		
Soil Impacts																	The project area is underlain by Eromanga Basin sediments which are part of the GAB. The surrounding landscape consists of a combination of extensive flood plains, channels and lakes (Cooper Land System), dune fields, swamps and lakes (Kertietoonga land system), dune fields (Marqualpie and Della land systems) and the stony tablelands and plains (Merrinie, Koonchera and Bloodwood land systems).	
8.5; 9.2.1, 9.2.4, 9.2.8, 9.2.10		Erosion	Soil disturbance and erosion	H	H	H	H	L	1	No	Low	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements and the site specific procedures/controls include Sediment controls installed in eroding areas within the site, Areas not required for operations cordoned off to optimise vegetation cover, Controlled vehicle access to the site through dedicated entry/ exit points, roadways and parking areas. In normal operations Disturbed areas of the site progressively stabilised and rehabilitated, Stormwater flows onto, through and from the site controlled will be followed. Finally, assurance controls include Erosion and sediment control measures regularly inspected and maintained.	LOW
		Storage and handling of fuels and chemicals	Contamination of surface soils	H	H	H	H	L	1	No	Low	-	-	-	-	1	All staff inducted into Precise Outcomes environmental requirements, Fuels, oils and chemicals stored in accordance with the requirements of the South Australian EPA's bunding guideline 080/16 Bunding & Spill Management (May 2016). Spills cleaned up immediately and any contaminated soil treated and disposed of in accordance with the waste management procedure. Spill kits located in close proximity to fuel and chemical storage and refuelling areas. Sites regularly inspected to ensure chemicals and fuels stored in bunded and/or double skinned storage tanks and areas in accordance with EPA requirements. Incident Response and reporting procedures implemented in accordance with Precise Outcomes corporate management system requirements. Material Safety Data Sheets available on site for all fuels and chemicals stored on site. Where possible refuelling areas should be located on a hardstand and bunded area. Where this is not possible any soil contaminated during refuelling operations will be collected for appropriate treatment and disposal in accordance with the waste management procedure	LOW
		Waste storage, handling and disposal	Impact on soil	H	H	H	L	H	1	No	Low	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements and the site specific procedures/controls include All wastes to be disposed of at Moomba or other EPA licensed facility. No wastes are to be disposed of at the Innamincka landfill, Wastewater must be treated and disposed of in accordance with the SA Public Health (Wastewater) Regulations 2013 and the SA Health On Site Wastewater Systems Code, April 2013, Domestic and potentially wind borne waste (e.g. paper, plastic etc.) stored in covered skips, No burial or burning of waste on-site, Listed Wastes managed in accordance with the EPA requirements including no such wastes to be removed from site without the necessary authorisation and paperwork completed, Contaminated soil and other material requiring disposal to special facilities stored separately, Production of waste minimised and waste products reused and recycled wherever practically possible, Waste segregated for recycling, Wastes covered when transported offsite. Finally, assurance controls include Solid or liquid waste removed from opened equipment items shall be treated as hazardous and contained in suitable containers for off-site processing or disposal in accordance with EPA requirements, Wastewater treatment plants regularly inspected and maintained by manufacturer's service representatives.	LOW
		Decommissioning and site rehabilitation	Unacceptable erosion rates	H	H	H	H	L	1	No	Low	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; The site design will incorporate Stock proof fencing of any remaining vegetation or regrowth within site areas maintained until vegetation is sufficiently established. The site specific procedures/controls include Site areas no longer required for operations cordoned off to encourage regrowth of vegetation, Implementation of erosion and sediment controls as required, All equipment (including ancillary equipment) decommissioned and removed from site, Ground surface re-contoured to approximate pre-existing contours. Development of a Decommissioning and Rehabilitation Management Plan will occur at conclusion of the project, this will be developed in consultation with DEM and relevant stakeholders will be followed. Finally, assurance controls include On final abandonment the surface will be revegetated to ensure compliance with the equired GAS criteria of at least ≥ 0 for facilities and tracks.	LOW
Surface Water and Groundwater Impacts																	The major wetlands, swamps and lakes in the area – including the Coongie Lakes RAMSAR wetlands - derive water from flow events in Cooper Creek. The alluvium along Cooper Creek is a source of sub-artesian water and in particular sandy sequences underlying the Creek provide a baseflow to semi-permanent waterholes during extended dry periods. Shallow groundwater quality in the project area is variable and some of these bores are suitable for drinking or stock water supply. A water license is required for the proposed HRLSH due to water being extracted from Darby's Bore 2 for industrial use. Precise Outcomes will ensure a license is approved from the department for Environment and Water (DEW) prior to any water being extracted from Darby's Bore 2.	
8.4-8.5; 9.2.4, 9.2.8		Operations affecting Groundwater and Surface Water	Reduction in groundwater levels, availability and quality	H	H	H	H	H	1	No	Low	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements. The site design will incorporate Where possible refuelling areas should be located on a hardstand and bunded area. The site specific procedures/controls include Fuels and chemicals stored in accordance with the requirements of the South Australian EPA's bunding guideline 080/16 Bunding & Spill Management (May 2016). Material Safety Data Sheets available on site for all fuels and chemicals stored on site, Groundwater extracted and used in accordance with licence conditions and exemptions, Spills cleaned up immediately and any contaminated soil treated and disposed of in accordance with the waste management procedure. Following an incident, Incident Response and reporting procedures implemented in accordance with Precise Outcomes corporate management system requirements will be followed. Finally, assurance controls include Groundwater bores inspected regularly to check for any potential contamination issues, Regular monitoring of the water level in Darby's Bore to detect any significant changes in its recharge which may indicate over extraction and the need for potable water to be tankered from Moomba, Sites regularly inspected to ensure chemicals and fuels stored in bunded and/or double skinned storage tanks and areas in accordance with EPA requirements.	LOW
		Storage and handling of fuels and chemicals	Impact on groundwater and surface water	H	H	H	H	H	1	No	Low	-	-	-	-	1	All staff inducted into Precise Outcomes environmental requirements, Fuels, oils and chemicals stored in accordance with the requirements of the South Australian EPA's bunding guideline 080/16 Bunding & Spill Management (May 2016). Spills cleaned up immediately and any contaminated soil treated and disposed of in accordance with the waste management procedure. Spill kits located in close proximity to fuel and chemical storage and refuelling areas. Sites regularly inspected to ensure chemicals and fuels stored in bunded and/or double skinned storage tanks and areas in accordance with EPA requirements. Incident Response and reporting procedures implemented in accordance with Precise Outcomes corporate management system requirements. Material Safety Data Sheets available on site for all fuels and chemicals stored on site. Where possible refuelling areas should be located on a hardstand and bunded area. Where this is not possible any soil contaminated during refuelling operations will be collected for appropriate treatment and disposal in accordance with the waste management procedure	LOW

				PREDICTABILITY						MANAGEABILITY							ENVIRONMENTAL SIGNIFICANCE	
REF	TYPE OF IMPACT	EVENTS	POTENTIAL CONSEQUENCES	SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS	SIGNIFICANCE	COMMENTS	
		Waste storage, handling and disposal	Impact on groundwater and surface water	H	L	H	H	H	1	No	Low	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements and the site specific procedures/controls include All wastes to be disposed of at Moomba or other EPA licensed facility. No wastes are to be disposed of at the Innamincka landfill. Wastewater must be treated and disposed of in accordance with the SA Public Health (Wastewater) Regulations 2013 and the SA Health On Site Wastewater Systems Code (April 2013). Domestic and potentially wind borne waste (e.g. paper, plastic etc.) stored in covered skips, No burial or burning of waste on-site, Listed Wastes managed in accordance with the EPA requirements including no such wastes to be removed from site without the necessary authorisation and paperwork completed, Contaminated soil and other material requiring disposal to special facilities stored separately, Production of waste minimised and waste products reused and recycled wherever practically possible, Waste segregated for recycling, Wastes covered when transported offsite. Finally, assurance controls include Solid or liquid waste removed from opened equipment items shall be treated as hazardous and contained in suitable containers for off-site processing or disposal in accordance with EPA requirements, Wastewater treatment plants regularly inspected and maintained by manufacturer's service representatives, Effluent disposal/transpiration areas regularly inspected to ensure the edge of the infiltration area is located at least 50m from the nearest drainage line and is fenced off to restrict access.	LOW
Vegetation Impacts																	The HRLSH is located at the boundary of three land systems, the gibber slopes of the Merrinie Land System, the dunes of the Strzelecki Land System, and floodouts and floodplains associated with the Cooper Land System (PB, 2008). All activities associated with the project will be undertaken within the Merrinie Land System. The EBS surveys indicate that no nationally significant threatened ecological communities were recorded or identified in the SFL 13 area. The EBS surveys identified 12 flora species of state conservation significance and 3 ecological communities considered to be of state significance.	
8.6-8.7, 8.10; 9.2.2, 9.2.5, 9.2.10	Operations affecting Vegetation, weeds and pests	Increased weed occurrence and competition with native species		H	H	L	H	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements for weed and pest management and the site specific procedures/controls include Access outside existing site areas restricted through the use of signage and fencing. All vehicles required to remain on formed roads and tracks within the project area, Disturbance and clearance of native groundcover minimised as far as possible, Domestic waste stored in covered skips to minimise scavenging, All interstate or high risk vehicles or equipment checked and cleaned prior to entering the Cooper Basin area, Any new area to be cleared/modified of vegetation will be assessed and important vegetation will be avoided where possible, Any new vegetation clearance will also need to be subject to significant environmental benefits (SEB). Finally, assurance controls include Regular site inspections to check for weed infestations and control / eradication of any weeds identified.	LOW
		Introduction of weed and pest species		H	H	L	H	H	1	No	Low	--	--	--	--	1		LOW
		Clearance of vegetation		H	H	H	H	H	1	No	Low	--	--	--	--	1		LOW
	Operations affecting Native flora	Risk of introduced species		H	L	L	H	L	2	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements. The site specific procedures/controls include Access outside existing site areas restricted through the use of No Go Zone signage and fencing, Strict site rules adhered to - to minimise off-road driving and access to non-designated work areas, Clearance of native vegetation is avoided as far as reasonably practical, An Environmental Control Plan will be posted in prominent areas on site (this will be submitted to the Department as part of each Activity Notification prepared for any activity undertaken under this SEO).	LOW
	Decommissioning and site rehabilitation	Loss of critical vegetation		H	H	H	H	L	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; The site design will incorporate Stock proof fencing of any remaining vegetation or regrowth within site areas maintained until vegetation is sufficiently established and the site specific procedures/controls include Site areas no longer required for operations cordoned off to encourage regrowth of vegetation, Ripping of compacted surfaces (other than gibber surfaces) to encourage regrowth, Any stockpiled topsoil material spread over the site. Development of a Decommissioning and Rehabilitation Management Plan at conclusion of the project, this will be developed in consultation with DEM and relevant stakeholders will be followed. Finally, assurance controls include On final abandonment the surface will be revegetated to ensure compliance with the equired GAS criteria of at least ≥ 0 for facilities and tracks.	LOW
		Sub-optimal regrowth of vegetation		H	H	H	H	L	1	No	Low	--	--	--	--	1		LOW
Fauna Impacts																	The proposed HRLSH is located within the Sturt's Stony Desert Sub Bioregion. The following species are known to occur within habitats of this region: Kowari (Dasygarcus byrnei) – nationally Vulnerable – has its South Australian stronghold in the gibber plains on the eastern flanks of Goyder Lagoon; and Knife-footed Frog (Cyclorana cultripes) – Rare (South Australia) – lives in the gibber and gilgai areas. The EBS surveys (Appendix E) were commissioned by Geodynamics to identify species potentially impacted by its activities within its GRLs, i.e. the surveys covered a broader area than the project area, SFL 13 is located within these GRL's. In those surveys EBS identified 37 threatened fauna species under South Australian and Commonwealth legislation (2 mammals, 33 birds, 2 reptiles) as potentially impacted by Geodynamics activities within its GRLs. EBS also identified the potential for occurrence of threatened species within the GRLs considering habitat preference. No alien species found on site were listed as weeds of national significance or declared under the Natural Resources Management Act 2004 (EBS, 2012). The HRLSH is located within the EBS survey area and it is anticipated the impacts will be less because most of the disturbance has already taken place due to previous geothermal activities undertaken by ReNu.	
8.7, 8.10; 9.2.5	Operations affecting Native fauna	Potential mortality due to collisions		H	H	H	L	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements. The site design will incorporate Site fencing maintained to avoid, minimise and manage impacts associated with native animals gaining access to any water storage areas, Facilities, pits/cellars and water storages appropriately fenced/covered to minimise access to native fauna, Facilities, pits/cellars and water storages appropriately fenced/covered to minimise access to native fauna. The site specific procedures/controls include Access outside existing site areas restricted through the use of No Go Zone signage and fencing, Strict site rules adhered to - to minimise off-road driving and access to non-designated work areas, Clearance of native vegetation is avoided as far as reasonably practical. In normal operations An Environmental Control Plan will be posted in prominent areas on site (this will be submitted to the Department as part of each Activity Notification prepared for any activity undertaken under this SEO). Waste management procedures adhered to - to reduce potential food sources for introduced pests and vermin, Areas of native vegetation on site that are not required for plant operations retained.	LOW
		Risk of introduced species		H	H	H	H	H	1	No	Low	--	--	--	--	1		LOW
		Potential reduction in species due to movement away from the area		H	H	H	H	H	1	No	Low	--	--	--	--	1		LOW
Air Impacts																	The air quality in the vicinity of the activity is expected to be typical of a remote rural Environment and influenced primarily by dust from high winds. Although there may be some dust generated from logistics operations and heavy vehicle movement it is not anticipated that there will be a significant change to air quality in the area as there will only be a small number of vehicles at the site at any one time. Dilons highway is currently being upgraded with bitumen which will reduce the amount of dust and air quality impacts from vehicles travelling along this road.	
		Operations affecting land use	Potential effect on local air quality	H	H	H	H	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; The site specific procedures/controls include the use of water cart may be used on an as needs basis (eg. during construction activities) to prevent the generatio--cumulation of dust, Cover truck loads to minimise tracking of dust, An 10km/hour speed limit enforced on all roads used by site staff and contractors will be followed. Finally, assurance controls include Construction activities with the potential to generate dust during unfavourable weather conditions within site will be monitored and modified as required.	LOW

REF	TYPE OF IMPACT	EVENTS	POTENTIAL CONSEQUENCES	PREDICTABILITY						MANAGEABILITY						COMMENTS	ENVIRONMENTAL SIGNIFICANCE	
				SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS			SIGNIFICANCE
8.2, 8.9; 9.2.3, 9.2.8		Waste storage, handling and disposal	Impact on local air quality	H	H	H	H	H	1	No	Low	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements and the site specific procedures/controls include All wastes to be disposed of at Moomba or other EPA licensed facility. No wastes are to be disposed of at the Innamincka landfill, Domestic and potentially wind borne waste (e.g. paper, plastic etc.) stored in covered skips, No burial or burning of waste on-site, Production of waste minimised and waste products reused and recycled wherever practically possible, Wastes covered when transported offsite will be followed.	LOW
Social Environment																		
Community Resource Impacts																	The site is approximately 8km south east of Cooper Creek and is located within the Innamincka Regional Reserve and Innamincka Pastoral Lease area. In South Australia, Regional Reserves provide for the conservation of wildlife or the natural or historic features of that land while, at the same time, permitting the utilisation of the natural resources of that land.	
8.1, 8.11; 9.2.3-9.2.4, 9.2.8, 9.2.10		Operations affecting Groundwater and Surface Water	Reduction in groundwater levels, availability and quality	H	H	H	H	L	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements. The site specific procedures/controls include Groundwater extracted and used in accordance with licence conditions and exemptions. Finally, assurance controls include Groundwater bores inspected regularly to check for any potential contamination issues. Regular monitoring of the water level in Darby's Bore to detect any significant changes in its recharge which may indicate over extraction and the need for potable water to be tankered from Moomba, Sites regularly inspected to ensure chemicals and fuels stored in bunded and/or double skinned storage tanks and areas in accordance with EPA requirements.	LOW
		Operations affecting land use and/or associated infrastructure disturbance	Disruption to land use and impacts to pastoral and/or other business reputation	H	H	H	H	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; The site specific procedures/controls include Areas of native vegetation on site that are not required for plant operations to be cordoned off and retained. The use of water cart may be used on an as needs basis (eg. during construction activities) to prevent the generatio--cumulation of dust, Cover truck loads to minimise tracking of dust, An 10km/hour speed limit enforced on all roads used by site staff and contractors. Finally, assurance controls include Construction activities with the potential to generate dust during unfavourable weather conditions within site will be monitored and modified as required.	LOW
		Waste storage, handling and disposal	Impact on local environment	H	H	H	H	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements and the site specific procedures/controls include All wastes to be disposed of at Moomba or other EPA licensed facility. No wastes are to be disposed of at the Innamincka landfill, Domestic and potentially wind borne waste (e.g. paper, plastic etc.) stored in covered skips, No burial or burning of waste on-site, Production of waste minimised and waste products reused and recycled wherever practically possible, Waste segregated for recycling, Wastes covered when transported offsite will be followed.	LOW
		Decommissioning and site rehabilitation works	Unsuccessful rehabilitation	H	H	H	H	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; The site specific procedures/controls include Site areas no longer required for operations cordoned off to encourage regrowth of vegetation, Implementation of erosion and sediment controls as required, Ripping of compacted surfaces (other than gibber surfaces) to encourage regrowth, All equipment (including ancillary equipment) decommissioned and removed from site, Any stockpiled topsoil material respread over the site, Ground surface re-contoured to approximate pre-existing contours, Development of a Decommissioning and Rehabilitation Management Plan at conclusion of the project, this will be developed in consultation with DEM and relevant stakeholders will be followed. Finally, assurance controls include On final abandonment the surface will be revegetated to ensure compliance with the equired GAS criteria of at least ≥ 0 for facilities and tracks.	LOW
			Unacceptable erosion rates	H	H	H	L	H	1	No	Low	--	--	--	--	1		LOW
			Impact on visual amenity of site	H	H	H	H	H	1	No	Low	--	--	--	--	1		LOW
Cultural & Heritage Impacts																The Cooper Creek area has many sites and stories of particular significance to Aboriginal people. Prior to European colonisation the fresh and often abundant water in a desert environment sustained relatively high populations of Aboriginal people from the Yandruwandha, Yarrawarka and Dieri Aboriginal groups. In addition to previous surveys, a thorough inspection (by foot traverse) of the area surrounding the power plant was conducted by Heritage Consulting Australia (HCA) in September 2010. The HCA 2010 report recommended that the sand dune to the east of the proposed camp (formerly Habanero 1) and the previous workshop and raw material site to the south be avoided. These sites will not be impacted by activities of HRLSH, as works will not be occurring on sand dunes. An area has been located as a no go zone and will be delineated with flagging to ensure there is no disturbance to the area from any potential HRLSH activities please refer to Figure 3. Further indigenous heritage surveys will be undertaken prior to the disturbance of any new ground that has not been previously disturbed.		
8.8; 9.2.6		Operations affecting Indigenous heritage	Disturbance or interference to sites, objects or remains of indigenous heritage significance	H	H	H	H	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; All site based staff and contractors to be inducted into Precise Outcomes environmental requirements and provided with guidance on indigenous heritage control measures. The site design will incorporate Site fencing to be maintained to prevent access to the sand dune to the east of the 20 person camp and the indigenous heritage workshop and raw material area immediately south of the site. The site specific procedures/controls include Signage to indicate public versus private roads and access tracks to discourage third party access to infrastructure, hence impacts to sites of cultural heritage significance. An Environmental Control Plan which details indigenous sensitive areas and no go zones to be posted in prominent areas on site this will be submitted to the Department as part of each Activity Notification prepared for any activity undertaken under this SEO, Further indigenous heritage surveys will be undertaken prior to the disturbance of any new ground that has not been previously disturbed, Sensitive area signage to be used to provide further protection of indigenous sensitive areas in proximity of operating areas, Sites of potential cultural and heritage significance are managed in liaison with relevant stakeholders, Consultation with stakeholders in relation to the possible existence and management of heritage sites. In an emergency Work to be stopped and the Aboriginal Affairs & Reconciliation Division of the Department of Premier and Cabinet to be notified if aboriginal heritage objects are discovered and a heritage specialist to be commissioned to record and assess the item(s) and provide management advice on the most appropriate impact mitigation measures and any consultation required with traditional owners will be followed.	LOW
Community Health & Safety																	Innamincka has a small population of 44 people obtained from the Australian Bureau of Statistics 2016 Census data. The most common industries of employment are farming and the oil and gas industry. It is not anticipated that the socio-economic environment will be impacted, personnel will be housed at the HRLSH and there will be little, if any, interaction with the facilities at Innamincka. Infrastructure and transport will not change significantly due to the operation of the HRLSH.	
8.1, 8.11; 9.2.8-9.2.9		Waste storage, handling and disposal	Health impacts from toxic and hazardous substances on personnel and public	H	H	H	H	H	1	No	Low	--	--	--	--	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements and the site specific procedures/controls include All wastes to be disposed of at Moomba or other EPA licensed facility. No wastes are to be disposed of at the Innamincka landfill, Listed Wastes managed in accordance with the EPA requirements including no such wastes to be removed from site without the necessary authorisation and paperwork completed, Contaminated soil and other material requiring disposal to special facilities stored separately, Wastes covered when transported offsite. Finally, assurance controls include Solid or liquid waste removed from opened equipment items shall be treated as hazardous and contained in suitable containers for off-site processing or disposal in accordance with EPA requirements, Wastewater treatment plants regularly inspected and maintained by manufacturer's service representatives.	LOW

				PREDICTABILITY						MANAGEABILITY							ENVIRONMENTAL SIGNIFICANCE		
REF	TYPE OF IMPACT	EVENTS	POTENTIAL CONSEQUENCES	SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS	SIGNIFICANCE		COMMENTS	
		Operations affecting Public Safety	Operations causing risk or harm to members of the public	L	L	H	H	H	1	No	Low	-	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; Induction of employees and contractor personnel with respect to road use and driver behaviour. The site design will incorporate Necessary measures (eg. signage/fencing) to prevent the public accessing operational areas and the site specific procedures/controls include Driving on designated areas only (i.e. Access tracks and designated operational areas) – unauthorised off-road driving is prohibited, Use of existing routes/disturbed areas where practicable, Storage of equipment and materials within operational site boundary, Setting of appropriate vehicle speed limits for Precise personnel and contractors.	LOW
Economic Environment																			
Existing Land Use Impacts																		The dominant land uses surrounding Precise Outcome’s proposed operations in the Cooper Basin are associated with the conservation of wildlife, landscape and historic features of the area, geothermal exploration, petroleum and natural gas production, tourism and pastoral production. The operation of the HRLSH is confined within a limited footprint and fenced off site area that is not inconsistent with the maintenance of the conservation status of the Innamincka Regional Reserve and the Coongie Lakes RAMSAR wetland, noting that the HRLSH and surrounding infrastructure sits outside the Coongie Lakes RAMSAR boundary itself.	
8.1, 8.11; 9.2.3-9.2.4, 9.2.10		Stakeholders, land use and/or associated infrastructure disturbance	The disruption to land use and impacts to pastoral and/or other business reputation	H	H	H	H	H	1	No	Low	-	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; and the site specific procedures/controls include Areas of native vegetation on site that are not required for plant operations to be cordoned off and retained, The use of water cart may be used on an as needs basis (eg. during construction activities) to prevent the generatio–cumulation of dust,. In normal operations Cover truck loads to minimise tracking of dust, An 10km/hour speed limit enforced on all roads used by site staff and contractors, will be followed. Finally, assurance controls include Construction activities with the potential to generate dust during unfavourable weather conditions within site will be monitored and modified as required.	LOW
		Operations affecting Groundwater and Surface Water	Reduction in groundwater levels, availability and quality	H	H	L	H	L	1	No	Low	-	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; All staff inducted into Precise Outcomes environmental requirements. The site specific procedures/controls include Groundwater extracted and used in accordance with licence conditions and exemptions. Finally, assurance controls include Groundwater bores inspected regularly to check for any potential contamination issues, Regular monitoring of the water level in Darby’s Bore to detect any significant changes in its recharge which may indicate over extraction and the need for potable water to be tankered from Moomba, Sites regularly inspected to ensure chemicals and fuels stored in bunded and/or double skinned storage tanks and areas in accordance with EPA requirements.	LOW
		Decommissioning and site rehabilitation works	Impact on visual amenity of site	H	H	H	H	H	1	No	Low	-	-	-	-	-	1	Precise Outcomes intend to manage these risks with the following controls; The site specific procedures/controls include Site areas no longer required for operations cordoned off to encourage regrowth of vegetation, Implementation of erosion and sediment controls as required, Ripping of compacted surfaces (other than gibber surfaces) to encourage regrowth, All equipment (including ancillary equipment) decommissioned and removed from site, Any stockpiled topsoil material respread over the site, Ground surface re-contoured to approximate pre-existing contours, Development of a Decommissioning and Rehabilitation Management Plan at conclusion of the project, this will be developed in consultation with DEM and relevant stakeholders will be followed. Finally, assurance controls include On final abandonment the surface will be revegetated to ensure compliance with the equired GAS criteria of at least ≥ 0 for facilities and tracks.	LOW