

Reference	PRIOR TO MITIGATION										POST MITIGATION								
	Impact Description	Phase	Severity	Extent	Duration	Consequence of Impact	Probability	Confidence	Status	Significance of Impact	Mitigation Measures	Severity	Extent	Duration	Consequence of Impact	Probability	Confidence	Status	Significance of Impact
Operational Impact Assessment																			
	Geology					#N/A				#N/A					#N/A				#N/A
	Geology of the site will not be affected during the operation of the HSPG	Operation								#N/A	No mitigation measures are required								
	Topography					#N/A				#N/A					#N/A				#N/A
	The topography will not be affected during the operation of the HSPG	Operation									No mitigation measures are required								
	Soil, Land Use and Land Capability					#N/A				#N/A					#N/A				#N/A
	Spillage of oils, greases, diesel etc. from testing vehicles can result in the contamination of soil resources.	Operation	High	Low	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Soil, Land Use and Land Capability	High	Low	Medium	Medium	Low	High	Negative	Low
	Spillage of effluent from the conservay tank if a leak were to occur can result in the contamination of soil resources.	Operation	High	Low	Medium	Medium	Low	High	Negative	Low	Refer to EMPr Soil, Land Use and Land Capability	Medium	Low	Medium	Medium	Low	High	Negative	Low
	Biodiversity					#N/A				#N/A					#N/A				#N/A
	The operation of the HSPG could potentially limit the movement of fauna onsite	Operation	Medium	Low	Medium	Medium	Low	High	Negative	Low	Refer to EMPr Biodiversity	Medium	Low	Medium	Medium	Low	High	Negative	Low
	Pumping of groundwater may impact on sensitive ecosystems such as wetlands and may result in a loss of flora and fauna species	Operation	Low	Low	Medium	Low	Low	High	Negative	Low	Refer to EMPr Biodiversity	Low	Low	Medium	Low	Low	High	Negative	Low
	Traffic and transport activities may impact flora and fauna species	Operation	Medium	Medium	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Biodiversity	Medium	Medium	Medium	Medium	Low	High	Negative	Low
	The removal of fauna species from site may result in uncontrolled growth of vegetation which may pose a fire risk to the surrounding areas.	Operation	High	Medium	Medium	Medium	High	High	Negative	Medium	Refer to EMPr Biodiversity	High	Medium	Medium	Medium	Low	High	Negative	Low
	The transport of vehicles along the unpaved road to the HSPG may result in the generation of dust which could result in a loss of biodiversity.	Operation	Low	Medium	Medium	Low	Medium	High	Negative	Medium	Refer to EMPr Biodiversity	Low	Medium	Medium	Low	Low	High	Negative	Low
	In the event that fauna gain access to the HSPG this could pose a health and safety risk	Operation	High	Low	Medium	Medium	High	High	Negative	Medium	Refer to EMPr Biodiversity	High	Low	Medium	Medium	Low	High	Negative	Low
	Rivers, Wetland and Pans					#N/A				#N/A					#N/A				#N/A
	Spillage of oils, greases, diesel etc. from testing vehicles can result in the contamination of the wetland.	Operation	Low	Low	Medium	Low	Low	High	Negative	Low	Refer to EMPr Rivers, Wetland and Pans	Low	Low	Medium	Low	Low	High	Negative	Low
	Spillage of effluent from the conservay tank if a leak were to occur can result in the contamination of the wetland.	Operation	Low	Low	Medium	Low	Low	High	Negative	Low	Refer to EMPr Rivers, Wetland and Pans	Low	Low	Medium	Low	Low	High	Negative	Low
	Hydrology																		
	Leakages and spillages of hydrocarbons from vehicles, and equipment (generators) could result in the contamination of surface water runoff from the site (i.e. pollution of the surrounding environment).	Operation	High	Low	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Hydrology	High	Low	Medium	Medium	Low	High	Negative	Low
	In the event that a leak occurs from the conservancy tank this could potentially result in the contamination of surface water.	Operation	High	Low	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Hydrology	High	Low	Medium	Medium	Low	High	Negative	Low
	Soil contamination may occur from the poor management of wastes generated onsite	Operation	Medium	Low	Medium	Medium	Low	High	Negative	Low	Refer to EMPr Hydrology	Medium	Low	Medium	Medium	Low	High	Negative	Low

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	The quarry and Borrow pit will be half backfilled from remaining material (uncontaminated soil) as such this could potentially create a void in which water may be naturally stored from stormwater runoff.	Operation	Medium	Low	High	Medium	Medium	High	Negative	Medium	Refer to EMPr Hydrology	Medium	Low	Medium	Medium	Medium	High	Negative	Medium
	Geohydrology																		
	Pumping of groundwater from the site and surrounding areas may reduce the natural groundwater recharge	Operation	Low	Low	Medium	Low	Low	High	Negative	Low	Refer to EMPr Geohydrology	Low	Low	Medium	Low	Low	High	Negative	Low
	Leakages and spillages of hydrocarbons from vehicles, and equipment as well as the spillage of sewage from the conservancy tank could result in the contamination of groundwater.	Operation	Medium	Low	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Geohydrology	Medium	Low	Medium	Medium	Low	High	Negative	Low
	Air Quality																		
	Dust may impact on the health and safety of employees and the surrounding community through respiratory, visual and aesthetic impacts.	Operation	Low	Low	Low	Low	Low	High	Negative	Low	Refer to EMPr Air Quality	Low	Low	Low	Low	Low	High	Negative	Low
	Vehicle activity on the main road from the Upington Airport to the proposed project may generate dust which may impact on air quality.	Operation	Low	Low	Low	Low	Low	High	Negative	Low	Refer to EMPr Air Quality	Low	Low	Low	Low	Low	High	Negative	Low
	Emission of NO2, SO2, CO and VOC from vehicle testing, machinery and equipment.	Operation	Low	Low	Low	Low	Low	High	Negative	Low	Refer to EMPr Air Quality	Low	Low	Low	Low	Low	High	Negative	Low
	Impact from dust (PM10 and dust fallout) on biodiversity.	Operation	Low	Low	Low	Low	Low	High	Negative	Low	Refer to EMPr Air Quality	Low	Low	Low	Low	Low	High	Negative	Low
	Air quality impacts on residential receptors	Operation	Low	Low	Medium	Low	Low	High	Negative	Low	Refer to EMPr Air Quality	Low	Low	Low	Low	Low	High	Negative	Low
	Noise and Vibrations																		
	Acoustic impacts as a result of the operation of the HSPG on residential receptors	Operation	Low	Low	Medium	Low	Low	High	Negative	Low	Refer to EMPr Noise and Vibrations	Low	Low	Low	Low	Low	High	Negative	Low
	The testing of vehicles at the HSPG may generate noise which may have a negative impact on the surrounding biophysical and socio-economic environment.	Operation	Low	Low	Medium	Low	Low	High	Negative	Low	Refer to EMPr Noise and Vibrations	Low	Low	Low	Low	Low	High	Negative	Low
	Archaeology, Historic and Cultural																		
	During the operation of the HSPG it is not foreseen that the archaeology, historic or culture of this site will be impacted upon.	Operation									No mitigation measures are required								
	Traffic																		
	The peak hour trip generation of the proving ground may have an impact on the traffic operating conditions of the affected public road network.	Operation	Low	Medium	Medium	Low	Low	High	Negative	Low	Refer to EMPr Traffic	Low	Medium	Medium	Low	Low	High	Negative	Low
	The operation of the HSPG could result in an increase of road users (including light and heavy weight vehicles) to and from the site.	Operation	Medium	Medium	Medium	Medium	Low	High	Negative	Low	Refer to EMPr Traffic	Medium	Medium	Medium	Medium	Low	High	Negative	Low
	The north-eastern shoulder sight distance at the proposed access location is below road standard which could pose a risk to health and safety for road users.	Operation	Medium	Medium	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Traffic	Low	Medium	Medium	Low	Low	High	Negative	Low
	Visual																		
	The generation of dust from the moment of vehicles to and from the HSPG may have visual impact within the surrounding area	Operation	Medium	Medium	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Visual	Medium	Medium	Low	Medium	Medium	Medium	Negative	Medium

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	Visual impact associated with the proposed facility and the potential impact on the areas rural sense of place	Operation	Low	Low	Medium	Low	Medium	High	Negative	Medium	Refer to EMPr Visual	Low	Low	Medium	Low	Low	High	Negative	Low

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	Socio-economic					#N/A				#N/A					#N/A				#N/A
	Creation of opportunities for the hospitality and tourism sector associated with the operational phase	Operation	Medium	Medium	Medium	Medium	Medium	High	Positive	Medium	Refer to EMPr Socio-economic	Medium	High	Medium	High	High	High	Positive	High
	Creation of employment and business opportunities associated with the operational phase	Operation	Medium	Medium	Medium	Medium	Medium	High	Positive	Medium	Refer to EMPr Socio-economic	Medium	High	Medium	High	High	High	Positive	High
	Raise profile of Upington and benefit town	Operation	Low	Medium	Medium	Low	Medium	High	Negative	Medium	Refer to EMPr Socio-economic	Low	Medium	Medium	Low	Medium	High	Positive	Medium
	Potential loss of livestock, crops and houses, damage to farm infrastructure and threat to human life associated with increased risk of grass fires	Operation	High	Medium	Medium	Medium	High	High	Negative	Medium	Refer to EMPr Socio-economic	High	Medium	Medium	Medium	Low	High	Negative	Low
	Potential noise, dust and safety impacts associated with movement of operational phase traffic to and from the site	Operation	Medium	Low	Medium	Medium	Medium	High	Negative	Medium	Refer to EMPr Socio-economic	Medium	Low	Medium	Medium	Low	High	Negative	Low