

IMPACTS					RANKING WITHOUT MITIGATION	IMPLEMENTATION OF MANAGEMENT MEASURES	RANKING WITH MITIGATION	
Nature	Description	Alternative	Cumulative	Type	Significance (A + B + C) X P	Description and/or Mitigation and Management Measures (if applicable)	Significance	
CONSTRUCTION PHASE								
Atmospheric Emissions	Negative	Dust emissions	Proposal	Yes	Direct	Low	<ul style="list-style-type: none"> A speed limit of 20km/h must be maintained on all dirt roads. Dust suppression by means of either water or biodegradable chemical agent is required. 	Low
		Alternative 1				Low		Low
		No-Go Option	Not Applicable	Not Applicable	None	None required	None	
	Negative	Emissions from vehicles and equipment (CO2, NOx, SOx, VOC's etc.)	Proposal	Yes	Direct	Low	<ul style="list-style-type: none"> In terms of transportation of workers and materials, collective transportation arrangements should be made to reduce individual car journeys where possible. All vehicles used during the project should be properly maintained and in good working order. All vehicles and other machinery should comply with road worthy requirements and comply with legislation in terms of allowable emissions. 	Low
			Alternative 1					Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Noise	Proposal	No	Direct	Low	<ul style="list-style-type: none"> Equipment and/or machinery which will be used must comply with the manufacturer's specifications on acceptable noise levels. Construction activities should be limited to daytime only. 	Low
			Alternative 1	No	Direct	Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
Surface Water	Negative	Water quality	Proposal	No	Direct	Low	<p>The general measures should be implemented:</p> <ul style="list-style-type: none"> Chemical toilets must be supplied and maintained during the construction phase Ablution facilities (chemical toilets) are to be provided by the Contractor, at a ratio of 1:10. Ablution facilities (chemical toilets) must be erected within 100m from all workplaces but within the development footprint. Toilets are to be secured to the ground, and must have a closing mechanism. Toilet paper must be provided at these facilities and must be serviced once per week. Certified contractors to maintain and remove chemical toilets regularly. The contractor must ensure that spillage does not occur when toilets are cleaned/serviced and contents must be properly stored and disposed of. Discharge of waste into the environment and/or burial of waste are strictly prohibited. Sanitary arrangements must be to the satisfaction of the PM, ECO, the local authorities and the applicable legal requirements. Drip trays must be placed under all vehicles when immobile for longer than 24 hours. Vehicles suspected of leaking must be monitored and conduct a pre start-up inspection checklist. Drip trays must be checked and replaced for vehicles standing (parked) for prolonged periods. Drip trays must be of a sufficient size and volume to collect any hydrocarbon leakages from a stationary vehicle. Spill kits (absorbent material) must be available on site and in all vehicles that transport hydrocarbons for dispensing to other vehicles on the construction site. Spilled substances must be contained in impermeable containers for removal to a licensed hazardous waste site. Significant spills should be reported to the Project Manager or Contractors Manager and ECO who should report this to the relevant authority 	Low
			Alternative 1					Low
			No-Go Option	Not Applicable	Not Applicable	None	None required. However, it should be noted that the existing state of the wetland is poor and will continue to deteriorate without rehabilitation.	None
	Positive		Proposal	Yes	Direct	+Medium	<ul style="list-style-type: none"> The Wetland Verification noted that the finalisation of the bio-engineered stormwater drainage channel is thus essential and supported from a wetland and aquatic resource management point of view. <p>In addition, the following general measures should be implemented:</p> <ul style="list-style-type: none"> Instability and erosion of steep slopes must be stabilised immediately. Re-vegetation in consultation with landscape architect and ECO should be done if and where required. To reduce the loss of material by erosion, disturbance must be kept to a minimum. Where possible, natural vegetation should be retained to reduce the risk of erosion. Silt fences must be used to stabilise the site, reduce erosion and silt entering the natural environment. No unchecked silt may enter the natural environment 	+Medium

	POSITIVE	Stormwater and erosion	Alternative 1	No	Direct	+Medium	<ul style="list-style-type: none"> Unchecked silt may enter the natural environment. Proper stormwater management as per the approved stormwater management plan (including bio-engineered regional plan). Increased run-off during construction should be managed using berms, temporary cut-off drains, attenuation ponds or other suitable structures, in consultation with the ECO and resident Engineer. Stormwater management system is to be installed as soon as possible following site establishment, to attenuate stormwater during the construction phase, as well as during the operational phase. Surface-water run-off and stormwater must be directed away from trenches and areas of excavation. Stormwater and erosion control BMPS included in the Stormwater Management plan must be adhered to. 	+Medium
	Negative		No-Go Option	No	Not Applicable	Medium	None required. However, it should be noted that the stormwater system of the area requires is not yet finalised which causes negative impacts to the stormwater of the Kengies area.	Medium
	Negative	Biota	Proposal	No	Indirect	Low	<p>The following general measures should be implemented:</p> <ul style="list-style-type: none"> Waste management must be a priority and all waste must be collected and stored adequately. It is recommended that all waste be removed from site on a weekly basis to prevent rodents and pests entering the site; No trapping, killing or poisoning of any wildlife should be allowed on site; Staff should be educated about the sensitivity of faunal species and measures should be put in place to deal with any species that are encountered during the construction process. The intentional killing of any animals including snakes, insects, lizards, birds or other animals should be strictly prohibited. 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
Waste Generation	Negative	Domestic waste	Proposal	Yes	Direct	Low	<ul style="list-style-type: none"> Waste recycling to be put in place. Solid waste shall only be stored in the designated general waste storage area which must be enclosed and impermeable. All solid waste shall be disposed of by a certified contractor, off-site, at an approved landfill site. The Contractor shall supply the ECO with a certificate of disposal for auditing purposes. 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Construction waste	Proposal	Yes	Direct	Low	<ul style="list-style-type: none"> Litter (from outside the camp included) and concrete bags etc. must be collected and put into suitable closed bins on a daily basis. Construction rubble must be disposed of at a registered site No Construction rubble may be used for infilling. 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Hazardous waste	Proposal	Yes	Direct	Low	<ul style="list-style-type: none"> The classification of waste determines the handling methods and the ultimate disposal of the material. The contractor shall manage hazardous waste that are anticipated to be generated by his operations as follows: Characterise the waste to determine if it is general or hazardous. Obtain and provide an acceptable container with a label. Place hazardous waste material in the container. Inspect the container on a regular basis Haul the full container to the licenced and correct disposal site. Provide documentary evidence of proper disposal of the waste. Only temporary storage of waste is allowed (once of storage of waste for a period less than 90 days). The volume of material should be limited to less than 80m3 of hazardous waste. Should this be exceeded the Norms and Standards for the Storage of Waste will need to be complied with. 	Low
			Alternative 1	Yes	Direct	Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
		Proposal	Yes	Direct	Medium	<ul style="list-style-type: none"> Top soil should be separated and re-used where possible. 	Low-Medium	
		Alternative 1			Medium		Low-Medium	

Soil Alteration	Negative	Loss of topsoil	No-Go Option	Yes	Direct	Low-Medium	The site is degraded by historic land use. It is likely that there will be a continued loss of topsoil should the development not proceed as the site will remain in its degraded state.	Low-Medium
	Negative	Loss of land capability	Proposal	Yes	Direct	Low-Medium	•According to the Gauteng Agricultural Potential Atlas IV, the agricultural potential of the site is moderate. However, the site has not been used for agriculture and is degraded. The site is also identified as urban in terms of the GPEMF and is surrounded by residential uses. Therefore, whilst the site may have previously had some potential, it is not located in an area conducive to farming. The development footprint is also fairly small and thus would not provide enough area for farming practices. Therefore, it is not expected to be a significant loss.	Low-Medium
			Alternative 1			Low-Medium		Low-Medium
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Alteration of topography	Proposal	No	Direct	Low-Medium	Some of the Topography within the development footprint will be altered as part of the development. In order to ensure the change in topography does not impact stormwater, the following must be implemented: • Stormwater management measures must be implemented to ensure these designs do not impact on stormwater.	Low-Medium
			Alternative 1			Low-Medium		Low-Medium
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Soil pollution	Proposal	No	Direct	Low	<ul style="list-style-type: none"> • Drip trays must be placed under all vehicles when immobile for longer than 24 hours. Vehicles suspected of leaking must be monitored and conduct a pre start-up inspection checklist. • All vehicle/equipment maintenance and washing must be done in the workshop area, equipped with a bund wall and grease trap oil separator. • Workshop area must be monitored for fuel and oil spills. • Drip trays must be checked and replaced for vehicles standing (parked) for prolonged periods. • Drip trays must be of a sufficient size and volume to collect any hydrocarbon leakages from a stationary vehicle. • Spill kits (absorbent material) must be available on site and in all vehicles that transport hydrocarbons for dispensing to other vehicles on the construction site. • Spilled substances must be contained in impermeable containers for removal to a licensed hazardous waste site. • Significant spills should be reported to the Project Manager or Contractors Manager and ECO who should report this to the relevant authority. • Waste must be managed in line with the requirements of the EMP. 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Resource Consumption	Negative	Electricity consumption	Proposal	Yes	Direct	None	•During the construction phase the contractors will mainly make use of generators.
Alternative 1				None			None	
No-Go Option				Not Applicable	Not Applicable	None	None required	None
Negative		Water consumption	Proposal	Yes	Direct	Low-Medium	• Enforce water saving strategies. • Environmental awareness training.	Low
			Alternative 1			Low-Medium		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
Negative		Fuel consumption	Proposal	Yes	Direct	Low-Medium	• Record and monitor fuel consumption regularly • Reduce theft of fuel (increase security)	Low
			Alternative 1			Low-Medium		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
Negative		Raw materials consumption	Proposal	Yes	Direct	Low-Medium	• Promote effective use of raw material.	Low
			Alternative 1			Low-Medium		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Loss of habitat due to Digging and laying foundations	Proposal	Yes	Direct	Low-Medium	Both layouts will result in a loss of habitat however, an ecological assessment was undertaken and found that the site is highly disturbed and already developed in parts and the loss of habitat is not significant. The following mitigation measures suggested by the specialist will be undertaken: • Proper stormwater management should be implemented	Low	
		Alternative 1			Low-Medium		Low	
		No-Go Option	Not Applicable	Not Applicable	None	None required. However, please note that the site is highly disturbed and degraded in parts.	None	

Effects on Biodiversity	Negative	Loss of habitat due to construction camps & lay down areas	Proposal			Low-Medium	Both layouts will result in a loss of habitat however, an ecological assessment was undertaken and found that the site is highly disturbed and already developed in parts and the loss of habitat is not significant.	Low	
			Alternative 1	Yes	Direct	Low-Medium		Low	
			No-Go Option	Not Applicable	Not Applicable	None		None required. However, please note that the site is highly disturbed and degraded in parts.	None
	Negative	Loss of habitat - Stochastic events such as fire	Proposal			Low	Both layouts will result in a loss of habitat however, an ecological assessment was undertaken and found that the site is highly disturbed and already developed in parts and the loss of habitat is not significant. The following mitigation measures suggested by the specialist will be undertaken: *Fires shall only be permitted in specially designated areas and under controlled circumstances.	Low	
			Alternative 1	Yes	Direct	Low		Low	
			No-Go Option	Not Applicable	Not Applicable	None		None required. However, please note that the site is highly disturbed and degraded in parts.	None
	Negative	Direct mortality of fauna - Staff or construction workers poaching and hunting	Proposal			Low	Both layouts are similar and thus impacts in regards to fauna mortality are similar. An ecological assessment and did not identify any sensitive fauna on site. The following mitigation measures suggested by the specialist will be undertaken: * Snaring and hunting of fauna by construction workers on or adjacent to the study area are strictly prohibited.	Low	
			Alternative 1	No	Direct	Low		Low	
			No-Go Option			None		None required. However, please note that the site is highly disturbed and degraded in parts.	None
		Negative	Direct mortality of fauna - Intentional killing of fauna	Proposal			Low-Medium	Both layouts are similar and thus impacts in regards to fauna mortality are similar. An ecological assessment and did not identify any sensitive fauna on site. The following mitigation measures suggested by the specialist will be undertaken: *Killing of fauna on or adjacent to the study area are strictly prohibited. Should any fauna species be found on site, the ECO should be conducted asap to provide recommendation or mitigation measures. I&APs have also raised concerns regarding the impact to Cane Rats. It is likely that Cane Rats on site will move off site during construction and may enter adjacent developments. They may be mis-identified as rats and thus poisoned. In order to reduce this impact, the following is recommended: * Cane Rat Information Documents/Posters should be developed and specific training regarding this species provided to construction workers. In addition, information documents should be provided to adjacent developments so that they are aware of the species.	Low
				Alternative 1	No	Direct	Low-Medium		Low
				No-Go Option			None		None required. However, please note that the site is highly disturbed and degraded in parts.
	Negative	Disruption of ecological life cycles due to the restriction of species movement - Open trenches and other linear barriers	Proposal			Low	Trenches and other linear barriers should not be kept open for too long, especially not staying open over night.	Low	
			Alternative 1	Yes	Direct	Low		Low	
			No-Go Option			None		None required	None
Negative		Disruption of ecological life cycles due to the restriction of species movement - Infrastructure	Proposal			Low-Medium	Stormwater and road infrastructure should be designed in such a way that it will have minimal impact on the environment.	Low	
			Alternative 1	Yes	Direct	Low-Medium		Low	
			No-Go Option	Not Applicable	Not Applicable	None		None required	None
		Disruption of	Proposal	Yes	Direct	Low	Construction must be restricted to hours of 07:00 and 17:00. Should construction activities need to continue over a weekend/public holiday or is expected to be excessively noisy, all Interested and Affected Parties and the ECO	Low	

	Negative	ecological life cycles due to noise and lighting - Noise during construction	Alternative 1			Low	a weekend/public holiday or is expected to be excessively noisy, all interested and affected parties and the ECO must be notified in advance.	Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Disruption of ecological life cycles due to noise and lighting - Light during construction	Proposal	Yes	Direct	Low-Medium	Construction must be restricted to hours of 07:00 and 17:00. Should construction activities need to continue after hours is, all Interested and Affected Parties and the ECO must be notified in advance. Excessive lighting during construction should be avoided.	Low
			Alternative 1			Low-Medium		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Introduction of alien flora affecting native faunal assemblages - Vehicles and machinery	Proposal	Yes	Direct	Low	Alien, invasive species found within the construction area should be eradicated as far as possible and disposed of at a registered site. Measures to prevent siltation from entering the wetland area, should be implemented throughout the construction phase.	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Negative	Introduction of alien flora affecting native faunal assemblages - soil disturbances	Proposal	Yes	Direct	Low	Alien, invasive species found within the construction area should be eradicated as far as possible and disposed of at a registered site. Measures to prevent siltation from entering the wetland area, should be implemented throughout the construction phase. \	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Incidents, accidents and potential emergency situations	Negative	Pollution incidents	Proposal	No	Direct	Low	<ul style="list-style-type: none"> Spill kits to be located in strategic areas for when needed Regular site and plant inspection must be conducted Environmental awareness training
Alternative 1				Low			Low	
No-Go Option				Not Applicable	Not Applicable	None	None required	None
Negative		Health and safety	Proposal	No	Direct	Low	<ul style="list-style-type: none"> 24 hour security and access control. Health and Safety awareness training. Contractor to submit a Health and Safety Plan, prepared in accordance with the Health and Safety Specification, for approval prior to the commencement of work. A Safety Agent should be appointed A Dedicated Occupational Health and Safety system to be implemented by Contractor's Safety Officer. To be monitored and audited by the Client's Safety Agent, in terms of the Construction Regulations (2003). 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
Negative		Storage of hydrocarbons	Proposal	No	Direct	Low	<ul style="list-style-type: none"> Best practice regarding storage of substances Spill kits to be located in strategic areas for when needed Environmental awareness training Firefighting equipment must be accessible on site at all times. Display of emergency numbers 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
Negative		Fire	Proposal	No	Direct	Low	<ul style="list-style-type: none"> Adhere to the appropriate emergency procedures Firefighting equipment must be accessible on site at all times. Display of emergency numbers In addition, designated smoking areas should be provided and there should be zero tolerance to smoking outside these areas. Cooking over open flames is not allowed. 	Low
			Alternative 1			Low		Low

			No-Go Option	No	Direct	Low	The site is currently unoccupied and the risk for fire remains.	Low
Social	Negative	Visual impact	Proposal	Yes	Direct	Low	During construction, the site should be screened or walled off.	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None		None required
	Negative	Safety and security	Proposal	No	Direct	Low	<ul style="list-style-type: none"> 24 hour access control to the site and 24 hour security. Workers found to be engaging in activities such as excessive consumption of alcohol, drug use or selling of any such items on site must be disciplined. 	Low
			Alternative 1			Low		Low
			No-Go Option	No	Direct	Low		The site is currently unoccupied. Should the develop not take place, there may be further safety and security issues in the area.
	Negative	Traffic disruptions	Proposal	No	Direct	Low	<ul style="list-style-type: none"> Traffic calming measures and appropriate signage to be implemented. Speed limits on all existing roads must be adhered to at all times. 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None		None required
	Negative	Loss of cultural heritage	Proposal	No	Direct	Low	A Heritage Impact Assessment was undertaken and the following mitigation measures recommended: <ul style="list-style-type: none"> Implementation of the chance find procedure. 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None		None required
	Negative	Loss of sense of place	Proposal	No	Direct	Low	<ul style="list-style-type: none"> Suitable screening to be put in place during construction to minimise visual impacts. No littering to be allowed. Good housekeeping practices to be followed 	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None		None required
Positive	Change of land use	Proposal	Yes	Direct	+Medium	The Conditions of Establishment have been approved. The proposed change in land use is in line with the Region A Spatial Development Plan and the COJ 2040 Spatial Development Framework. No mitigation measures other than the townplanning process is required.	+Medium	
		Alternative 1			+Medium		+Medium	
		Not Applicable	No-Go Option	Not Applicable	Not Applicable		None	None required
Positive	Decline/increase in economy	Proposal	Yes	Direct	+Medium	The proposed CAPEX value of the development is R95 000 000.00. This will have numerous multiplier effects in the local community. In order to ensure that this benefits the local community, it is recommended that local labour and suppliers are used where possible.	+Medium	
		Alternative 1			+Medium		+Medium	

Economic	Negative		No-Go Option			Medium	Should the development not proceed, the benefits to the local community will be long term and negative. Further, the goals of the GSDF and Regional SDP will also not be met. There are no mitigation measures available.	Medium
	Positive	Decline/increase in property value	Proposal			+Medium	The development of the proposed development will increase the property value of the site overall. Further, it will have a knock on effect and is likely to increase the value of neighbouring properties as well. No mitigation measures are required.	+Medium
			Alternative 1	No	Direct	+Medium		+Medium
	Negative		No-Go Option			Medium	The site was is vacant and is degraded and without development, the property value is likely to decrease. This will have knock on effects on the surrounding properties. No mitigation, save for development of the site, is available.	Medium
	Positive	Employment	Proposal			+Medium	The proposed development will result in approximately 200 construction related employment opportunities for the local community. Local labour should be utilised as far as possible.	+Medium
			Alternative 1	Yes	Direct	+Medium		+Medium
Negative		No-Go Option			Medium	Should the development not proceed, the benefits to the local community will be long term and negative as potential employment opportunities will be lost. No mitigation measures are available.	Medium	
OPERATIONAL PHASE								
Atmospheric Emissions	Not Applicable	Dust emissions	Proposal			None	Impacts not applicable to the operational phase. No mitigation required.	None
			Alternative 1	Not Applicable	Not Applicable	None		None
			No-Go Option			None		None required
	Negative	Emissions from vehicles and equipment (CO2, NOx, SOx, VOC's etc.)	Proposal			None	Impacts not applicable to the operational phase. No mitigation required. Whilst residents will utilize cars, they are likely to own these cars already and will not be generating additional emissions from what they do already.	None
			Alternative 1	Not Applicable	Not Applicable	None		None
			No-Go Option			None		None required
Negative	Noise	Proposal	No	Direct	Low	• The proposed residential development is in line with activities and uses in the area and will not provide significant noise pollution. The Managing Company/Body Corporate should develop rules and regulations to manage noise in line with applicable by-laws.	Low	
		Alternative 1			Low		Low	
		No-Go Option	Not Applicable	Not Applicable	None	None required	None	
Surface Water	Negative	Water quality	Proposal	No	Direct	Low	• A Outline Scheme Report has been undertaken and noted that sewer will connect to an existing sewer line and be treated at an existing Treatment works. Maintenance and management of the sewer connection must be undertaken as per COJ's requirements.	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None		None required
	Positive	Stormwater and erosion	Proposal	Yes	Direct	+Medium	• The Wetland Verification noted that the finalisation of the bio-engineered stormwater drainage channel is thus essential and supported from a wetland and aquatic resource management point of view. In addition, the following general measures should be implemented: • Maintenance of the stormwater management system as per the Bio-regional stormwater management plan's BMPs to be undertaken.	+Medium
			Alternative 1			+Medium		+Medium
	Negative		No-Go Option	No	Not Applicable	Medium	The existing stormwater of the area is dependent on the completion of the bio-engineered regional stormwater system. Currently, there are a number of stormwater issues faced by the area.	Medium
		Proposal	No	Indirect	Low	• Rehabilitation of construction impacted area, holes in the armoring will be filled with in-situ topsoil, and vegetation as per the Stormwater Management Plan. • Buffer area to be maintained to provide habitat	Low	

	Negative	Biota	Alternative 1			Low	<ul style="list-style-type: none"> • Buffer area to be maintained to provide habitat. • Environmental awareness of Cane Rats within the estate so that residents are aware of them. • Environmentally sensitive pest control. 	Low	
			No-Go Option	Not Applicable	Not Applicable	None	None required	None	
Waste Generation	Negative	Domestic waste	Proposal	Yes	Direct	Medium	<ul style="list-style-type: none"> • Recyclable waste streams must be separated from other waste streams. Waste to be separated into recyclable and non-recyclable waste. Waste separation needs to occur before waste is collected. • Solid waste shall only be stored in the designated general waste storage area which must be enclosed and impermeable. • All solid waste shall be disposed of by a certified contractor, off-site, at an approved landfill site if no municipal services are available. • Avoidance, reduction, re-use and recycling should be practiced wherever possible. 	Low	
			Alternative 1			Medium		Low	
			No-Go Option			None		None required	None
			Not Applicable			Not Applicable		None	None required
	Not Applicable	Construction waste	Proposal	Not Applicable	Not Applicable	None	Impacts not applicable to the operational phase. No mitigation required.	None	
			Alternative 1			None		None	
			No-Go Option			None		None required	None
	Negative	Hazardous waste	Proposal	Not Applicable	Not Applicable	None	No hazardous waste is expected during operation.	None	
			Alternative 1			None		None	
			No-Go Option			None		None required	None
Soil Alteration	Negative	Loss of topsoil	Proposal	Not Applicable	Not Applicable	None	Impacts not applicable to the operational phase. No mitigation required.	None	
			Alternative 1			None		None	
			No-Go Option			Yes		Direct	Low-Medium
	Not Applicable	Loss of land capability	Proposal	Not Applicable	Not Applicable	None	Impacts not applicable to the operational phase. No mitigation required.	Medium	
			Alternative 1			None		Medium	
			No-Go Option			None		None required	None
	Not Applicable	Alteration of topography	Proposal	Not Applicable	Not Applicable	None	Impacts not applicable to the operational phase. No mitigation required.	None	
			Alternative 1			None		None	
			No-Go Option			None		None required	None
	Negative	Soil pollution	Proposal	Not Applicable	Not Applicable	None	Impacts not applicable to the operational phase. No mitigation required.	Low	
Alternative 1			None			Low			
No-Go Option			None			None required		None	
Resource Consumption	Negative	Electricity consumption	Proposal	Yes	Direct	Medium	<ul style="list-style-type: none"> • Promote effective electricity consumption. 	Low-Medium	
			Alternative 1			Medium		Low-Medium	
			No-Go Option			None		None required	None
	Negative	Water consumption	Proposal	Yes	Direct	Medium	<ul style="list-style-type: none"> • Promote effective water conservation measures. 	Low	
			Alternative 1			Medium		Low	
			No-Go Option			None		None required	None
	Negative	Fuel consumption	Proposal	Not Applicable	Not Applicable	None	Impacts not applicable to the operational phase. No mitigation required.	None	
			Alternative 1			None		None	
			No-Go Option			None		None required	None
	Negative	Raw materials consumption	Proposal	Yes	Direct	Low-Medium	<ul style="list-style-type: none"> • Promote effective use of raw material. 	Low	
Alternative 1			Low-Medium			Low			
No-Go Option			None			None required		None	
		Loss of existing habitat due to loss of	Proposal			Low	Fire extinguishers must be placed on the property.	Low	

Effects on Biodiversity	Negative	vegetation - stochastic events like fire	Alternative 1	No	Direct	Low		Low
			No-Go Option			None	None required	None
	Negative	Loss of fauna - Intentional killing of fauna	Proposal	No	Direct	Low	<ul style="list-style-type: none"> • It is not expected that any fauna will be found on site during operation. The Body Corporate/Managing Company must include the requirement in their rule book that should any be found that the relevant organisation be called to safely remove the species. • Environmental awareness of Cane Rats within the estate so that residents are aware of them. • Environmentally sensitive pest control. 	Low
			Alternative 1			Low		Low
			No-Go Option			None		None required
	Negative	Disruption of ecological life cycles due to the restriction of species movement - infrastructure	Proposal	No	Direct	Low-Medium	Stormwater and road infrastructure should be designed in such a way that it will have minimal impact on the environment. Maintenance should be undertaken as per the requirements of the stormwater management plan.	Low
			Alternative 1			Low-Medium		Low
			No-Go Option			None		None required
	Incidents, accidents and potential emergency situations	Negative	Pollution incidents	Proposal	No	Direct	Low	• Sewer connection pipe must be managed and maintained in line with COJ requirements.
Alternative 1						Low	Low	
No-Go Option				Not Applicable	Not Applicable	None	None required	
Negative		Health and safety	Proposal	No	Direct	Low	• 24 hour security and access control.	Low
			Alternative 1			Low		Low
			No-Go Option	Not Applicable	Not Applicable	None		None required
Negative		Storage of hydrocarbons	Proposal	No	Direct	None	Impacts not applicable to the operational phase. No mitigation required.	None
			Alternative 1			None		None
			No-Go Option	Not Applicable	Not Applicable	None		None required
Negative		Fire	Proposal	No	Direct	Low	<ul style="list-style-type: none"> • Adhere to the appropriate emergency procedures • Firefighting equipment must be accessible on site at all times. • Display of emergency numbers 	Low
			Alternative 1			Low		Low
			No-Go Option	No	Direct	Low		The site is currently unoccupied. Should the develop not take place, the potential for fires on site and on neighbouring properties remains as is.
Social	Negative	Visual impact	Proposal	Not Applicable	Not Applicable	None	As the development is in line with the development goals of the area and the existing residential developments in the area, no visual impact is expected during operation.	None
			Alternative 1			None		None
			No-Go Option			None		None required
	Positive	Safety and security	Proposal	No	Direct	+Low	Due to the development of the site, safety and security in the area is likely to improve. In addition, the following will be implemented which will assist with this: <ul style="list-style-type: none"> • 24 hour access control to the site and 24 hour security. 	+Low
			Alternative 1			+Low		+Low
	Negative		No-Go Option	No	Direct	Low	The site is currently unoccupied . Should the develop not take place, there may be further safety and security issues in the area.	Low
	Negative	Traffic disruptions	Proposal	No	Direct	Low-Medium	<ul style="list-style-type: none"> • Access to the development to be undertaken as per the Traffic Impact Statement. • No new roads are required as the proposed development will only generate 51 new trips. 	Low
			Alternative 1			Low-Medium		Low
			No-Go Option	Not Applicable	Not Applicable	None		None required
	Not Applicable	Loss of cultural heritage	Proposal	Not Applicable	Not Applicable	None	Impacts not applicable to the operational phase. No mitigation required.	None
			Alternative 1			None		None
No-Go Option					None	None required		None
		Proposal	No	Direct	None	As the development is in line with the development goals of the area and the existing residential developments	None	

	Negative	Loss or sense of place	Alternative 1			None	in the area, no impacts to sense of place is expected during operation.	None
			No-Go Option	Not Applicable	Not Applicable	None	None required	None
	Positive	Change of land use	Proposal	Yes	Direct	+ Medium	The Conditions of Establishment have been approved. The proposed change in land use is in line with the Region A Spatial Development Plan and the COJ 2040 Spatial Development Framework. No mitigation measures other than the townplanning process is required.	+ Medium
			Alternative 1			+ Medium		+ Medium
	Not Applicable		No-Go Option	Not Applicable	Not Applicable	None	None required	None
Economic	Positive	Decline/increase in economy	Proposal	Yes	Direct	+ Medium	Once operational the development will provide housing opportunities in the area and thus will contribute to the economy in the area as people living in the area will likely purchase goods in nearby stores etc. This will have an economic multiplier effect in the local community. No mitigation measures are required.	+ Medium
			Alternative 1			+ Medium		+ Medium
	Negative		No-Go Option			Medium	Should the development not proceed, the benefits to the local community will be long term and negative. Further, the goals of the COJ SDF 2040 and Regional SDP will also not be met. There are no mitigation measures available,	Medium
	Positive	Decline/increase in property value	Proposal	No	Direct	+ Medium-High	The development of the a residential development will increase the property value of the site overall. Further, it will have a knock on effect and is likely to increase the value of neighbouring properties as well. No mitigation measures are required. Due to the market preference for clusters, there is a increased positive benefit for the proposal.	+ Medium-High
			Alternative 1			+ Medium		+ Medium
	Negative		No-Go Option			Medium	The site was previously is vacant and degraded and without development, the property value is likely to decrease. This will have knock on effects on the surrounding properties. No mitigation, save for development of the site, is available.	Medium
	Positive	Employment	Proposal	Yes	Direct	+ Medium	The proposed development will result in approximately 31 permanent full time operation related employment opportunities for the local community. Local labour should be utilised as far as possible.	+ Medium
			Alternative 1			+ Medium		+ Medium
	Negative		No-Go Option			Medium	Should the development not proceed, the benefits to the local community will be long term and negative as potential employment opportunities will be lost. No mitigation measures are available.	Medium