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CONSIDERATION OF THE DEA&DP NEED AND DESIRABILITY GUIDELINE (OCTOBER, 2014) IN THE ENVIRONMENTAL BASIC ASSESSMENT PROCESS FOR THE PROPOSED AGRICULTURAL DEVELOPMENT OF ERF 385, HOEKWIL, GARDEN ROUTE MUNICIPALITY, WESTERN CAPE PROVINCE.

According to the DEA&DP Need and Desirability Guideline (2014), the need for and desirability of a proposed activity must specifically and explicitly be addressed throughout the EIA process (screening, "scoping", and assessment) when dealing with individual impacts and specifically in the overall impact summary by taking into account the answers to inter alia the following questions:

1.7.2

Intra- and inter-generational equity in the context of sustainability

The report by the World Commission on Environment and Development, *Our Common Future*, issued in 1987 (also referred to as the "Brundtland Report"), is widely regarded as the key point in the evolution of the concept of "sustainability" and "sustainable development". The Brundtland Report defined sustainable development as "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" (WCED, 1987). Two key concepts conveyed in this definition are the notion of "needs" with a particular focus on the disadvantaged portion of current societies, and the sense of limits on the ability of the environment to meet the needs of current and future generations.

The Strategic Framework for Sustainable Development (SFSD) emphasises that South Africa's current development path in many respects are not sustainable in the long-term. It highlights that economic growth in South Africa is achieved by

"*consuming natural resources and degrading our habitat at accelerating rates with the inevitable consequence that future economic growth and development objectives will be prejudiced.* " (DEAT 2007).

Intra-generational equity also refers to equitable access to, or distribution of opportunities, resources, (positive and negative) impacts between individuals and between current societies. Inter-generational equity refers to the equitable distribution of opportunities, resources, (positive and negative) impacts between current and future societies. As such, the manner in which resources are used to address the needs of current societies, must not demise the options of future societies to experience the same opportunities.

1.13

Cumulative effects

In terms of the EIA Regulations "cumulative impact", in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area;

Cumulative effects can be:

- ☐ Additive: the simple sum of all the effects (e.g. fertilizer inputs to a river from farms in the catchment);
- ☐ Synergistic: effects interact to produce a total effect greater than the sum of individual effects. These effects often happen as habitats or resources approach capacity (e.g. fragmentation of habitat for a species can have limited effect until additional fragmentation makes areas too small to support that species at all);
- ☐ Time crowding: frequent, repetitive impacts on a particular resource at the same time (e.g. small-scale mining within a particular ecosystem).
- ☐ Neutralizing: where effects may counteract each other to reduce the overall effect (e.g. infilling of a wetland for road construction, and creation of new wetlands for water treatment).
- ☐ Space crowding: high spatial density of impacts on an ecosystem (e.g. rapid expansion of urban sprawl).

In terms of the EIA Regulations "cumulative impact", in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Crucial to the identification of cumulative implications of an activity or project, is to have an understanding of the context within which the impact will occur. For example, if the context (goal/vision) for an area is to protect its agricultural land use potential and its associated landscape character, the anticipated cumulative implications associated with the establishment of an industrial plant will be significant.

2.14

Opportunity Cost

Opportunity costs refer to the process of considering and comparing the ecological, social and economic costs, implications and opportunities of different alternatives. Choosing a specific option, alternative or path may result in other options (and its associated opportunities) being foregone - the loss of these opportunities are referred to as the opportunity cost of the preferred option. Assessing the opportunity costs of different options will also assist in the search for alternatives that will result in -

- the understanding the value of the foregone opportunities;
- the achievement (or at least contribute most to the achievement) of the desired aim/goal for the specific area;
- optimising positive impacts;
- minimising negative impacts;
- the equitable distribution of impact (negative and positive); and
- the maintenance of ecological integrity and environmental quality.

The above is also linked to the positive duty to find the "best practice environmental option", which is defined in NEMA as "*the option that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term*"

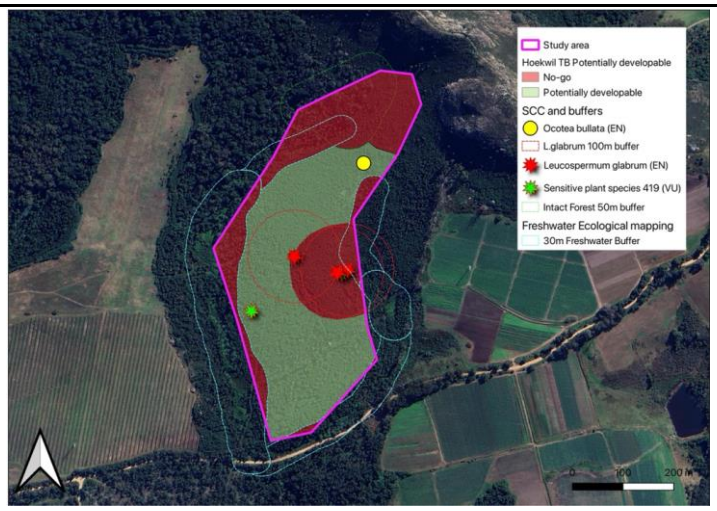
The need to consider the opportunity costs of different options are particularly relevant in instances where resources are limited, environments that are under stress.

Examples where the consideration of opportunity cost is relevant include the option of redeveloping and public open space into a parking area. Another example is where it is confirmed that there are adequate water resources to service a development proposal. Applying the "opportunity cost" principle would change the question being asked, by placing a positive duty to consider if the proposed development will constitute the best use of the available water resources (i.e. the best practicable environmental option).

Guideline Question	Response

Section 1: Securing Ecological Sustainable Development and Use of Natural Resources	
1. How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	Ecological impacts of this development have been assessed as described in the Basic Assessment Report (BAR), by specialists. Animal Species Specialist Report (Capensis, May 2024): A total of 40 animal species were observed in the study area, with two being of conservation concern. The two species in question are Campethera notata (Knysna Woodpecker) and Chlorotalpa duthiae (Duthie's Golden Mole). Based on the habitat present at or in close proximity to the site there is the potential for the locality to support four additional SCC, including Afrixalus kysnae, Bradypterus sylvaticus, Sensitive Species 8, and Stephanoaetus coronatus. The direct impact of the proposed development is estimated to have a moderate negative impact without mitigation measures, with the likely loss of C. duthiaea from within the development footprint, as well as loss of potential habitat for SCC. Should appropriate mitigation measures be followed, including a 50m buffer zone around intact forest habitat and a 30m buffer from aquatic habitats, the impact of the proposed development on SCC present at the site (or potentially occurring SCC) is considered to be low negative. It should be noted that C. duthiaea is highly likely to be lost from within the proposed development footprint as this species is fairly intolerant to soil disturbance, even when accounting for the appropriate mitigation methods. However, the sub-population of this species is unlikely to be heavily impacted as the preferred habitat for this species (intact forest) can be found outside the site footprint and is unlikely to be significantly negatively impacted by the proposed development. Specialist Aquatic Biodiversity Assessment (Confluent, May2025): Two wetlands and associated streams were identified either side of the proposed cultivated area on Erf 385. These wetlands occur within a catchment area that has been classified as a FEPA and a SWSA. Any further development in the catchment area must therefore be done in a sensitive manner so as to maintain watercourses and the larger Touws River catchment in a good ecological condition. Extensive agricultural activities are one of the main threats to aquatic biodiversity that have been identified in the broader catchment area. Impacts associated with agriculture are primarily related to loss of aquatic habitat due to encroachment of cultivated areas into riparian zones and wetlands and nonpoint source pollution of watercourses by nutrients, sediment and pesticides. All of these impacts can be effectively mitigated through the implementation of adequately sized buffers that protect watercourses from habitat loss but also play and important role in attenuating and filtering nonpoint source pollutants. In this respect, and considering the sensitivity of the catchment area, a mandatory 30 m buffer between watercourses and planned cultivated fields must be implemented. Provided that the buffer and other mitigation measures are implemented, impacts associated with the proposed establishment of cultivated areas are acceptable from an aquatic biodiversity perspective.

	Both road crossing alternatives would require infilling of wetland habitat and can also alter the natural hydrological and geomorphological characteristics of the wetland by restricting flow across the road. Mitigation measures must therefore be implemented with a view to ensuring the natural hydrological and geomorphological characteristics of the wetland are maintained. In this respect the road design must continue to allow diffuse flow through the road which can be achieved by installing multiple appropriately sized culverts through the road. Alternative B results in a lower impact and risk to the wetland – and is therefore the recommended alternative. Terrestrial Biodiversity Assessment (Capensis, May 2024): The proposed development will result in the permanent loss of habitat which is currently Degraded to Highly degraded or Highly degraded. The mitigation of avoidance, search and rescue and rehabilitation will result in the remaining habitat on the site improving in condition. This will improve the overall ecological functioning of the site by ensuring that the dominant vegetation is locally occurring indigenous vegetation. This will allow for better habitat for faunal species and improving plant/animal interactions such as pollination. The connectivity between the upper and lower elevations on the site will allow for better faunal movement between the site and surrounding areas. The occurrence of fires which are an important ecological driver for fynbos ecosystems may be reduced by increasing density of agricultural activities. Fire suppression will likely be practised around the cultivated areas, however, as evident in 2017 fires may still occur. The drainage lines on either side of the site may become densely vegetated and this may exclude fire if forest species dominate. The proposed development of 15 ha within the study area would result in the loss of Medium and High sensitivity vegetation, species of conservation concern and areas critical for ecological functioning such as river corridors. This loss is not supported from a Terrestrial Ecology perspective. An area of 11 ha has been mapped that excludes the most sensitive areas and species, and the development of this area is considered as acceptable from a Terrestrial Biodiversity perspective. However, the impacts will still need to be mitigated, and rehabilitation of the excluded areas is required. This will have a Low negative cumulative impact, and no change to the ecosystem threat status will occur as a result of the proposed development.

	 CONSTRAINTS MAP: The Terrestrial Biodiversity and Plant theme constraints for the study area overlaid on an ESRI ™ image. Note that the buffers around the freshwater features were provided by the freshwater ecologist James Dabrowski.
1.1. How were the following ecological integrity considerations taken into account?: 1.1.1.Threatened Ecosystems, 1.1.2.Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure, 1.1.3.Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"), 1.1.4.Conservation targets, 1.1.5. Ecological drivers of the ecosystem, 1.1.6.Environmental Management Framework, 1.1.7.Spatial Development Framework, and 1.1.8.Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).16	1.1.1 The proposed development falls within an area categorised as Endangered Garden Route Shale Fynbos (northern strip) and Least Concern Southern Afrotemperate Forest in terms of Threatened Ecosystems. 1.1.2 The initial area for cultivation investigated occurred within watercourses on the site. As stated in point no.1 above, the aquatic specialist has recommended a 30 m buffer zone in order to protect the watercourses from agricultural activity. In addition, the terrestrial biodiversity specialist has recommended a 50 m buffer for intact forest habitat. These mitigation measures have informed the preferred alternative. 1.1.3 As per the Terrestrial Biodiversity Assessment (May 2024): "The WCBSP 2017 assigns the northern parts of the site as CBA 1 and CBA 2. ESA 2 is assigned to the area just to the south of this, and ESA 1 is assigned to the greater part of the central and southern parts of the site. In general the classifications are supported based on the site visit, however, the CBA 1 site in the south-eastern corner of the site is erroneously classified as a forest patch, however, the dense vegetation in this area is invasive species." 1.1.4 As per the Terrestrial Biodiversity Assessment (May 2024): "The proposed development of 15 ha within the study area would result in the loss of Medium and High sensitivity vegetation, species of conservation concern and areas critical for ecological functioning such as river corridors. This loss is not supported from a Terrestrial Ecology perspective. An area of 11 ha has been mapped that excludes the most sensitive areas and species, and the development of this area is considered as acceptable from a Terrestrial Biodiversity perspective. However, the impacts will still need to be mitigated, and rehabilitation of the excluded areas is required. This will have a Low negative cumulative impact, and no change to the ecosystem threat status will occur as a result of the proposed development." 1.1.5 Same as above.

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1.1.6 Environmental Management Framework (EMF) for the Garden Route District 2023/2027:

(iv) Optimise the use of existing resources including such resources relating to agriculture,
land, minerals, bulk infrastructure, roads, transportation and social facilities.

All land put under the plough including for orchards, vineyards, forestry plantations, annual crops, pastures, and including irrigation lands shall be reserved for Intensive Agriculture and should not be converted to other purposes.

1.1.7 The site is zoned Agricultural I, and the use of the land for orchards is aligned with the SDF's designation for rural agricultural intensification.

The project contributes to local food security, rural economic development, and job creation in line with SDF objectives.

1.1.8
<table>
<tr><td>Water Conservation</td><td>Drip irrigation, mulching, rain harvesting</td></tr>
<tr><td>Pest Management</td><td>Biological controls, disease monitoring</td></tr>
<tr><td>Variety Selection</td><td>Drought- and heat-tolerant cultivars</td></tr>
<tr><td>Ecosystem Protection</td><td>Make use of buffer zones to protect sensitive and indigenous habitats</td></tr>
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<td>1.2. How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity?
What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts?
What measures were explored to enhance positive impacts?</td>
<td>Discussed above in point no.1</td>
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<td>1.3. How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts?
What measures were explored to enhance
positive impacts?</td>
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Specialist Aquatic Biodiversity Assessment (Confluent, May2025) :

<u>Cultivated fields will be established on relatively steep slopes which could mobilise nonpoint source pollution of sediments, nutrients and pesticides via surface runoff into watercourses.</u>
Mitigation measures are included in EMPr, to ensure contractor and staff conduct their activities in such a way to minimize pollution or degradation of the ecosystem. As suggested by specialist:

- Planting rows must be planted along the contours as opposed to perpendicular to the contours;
- A permanent cover crop must be cultivated on the orchard row (underneath the trees) and in
- work rows (rows between the trees) which will improve water retention and soil structure and
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	- control unwanted weeds and also minimise transport of soil, nutrients and pesticides in surface - runoff; - Implementation and maintenance of 30 m buffer between cultivated fields and watercourses; and - Control of alien invasive plant species must be carried out within buffer areas to encourage - recolonisation by indigenous vegetation and improve the structural integrity of the buffer. <u>Pollution of watercourse caused by spray drift during pesticide application.</u> Drift of pesticides into sensitive non-target areas during spraying can result in high concentrations of toxic pesticides being deposited in watercourses. While contamination is likely to be short-term, the high concentrations typically associated with spray drift events can lead to chronic and/or acute toxicological effects to aquatic and other biota inhabiting watercourses. The most effective measure to reduce drift deposition in watercourses is a) to increase the distance between the closest point of application and the watercourse through the establishment of a buffer and b) encourage growth of vegetation within the buffer which effectively intercepts spray droplets and minimises deposition in the watercourse. . As suggested by specialist: - Implementation and maintenance of a vegetated 30 m buffer between cultivated fields and watercourses. Impacts associated with agriculture are primarily related to loss of aquatic habitat due to encroachment of cultivated areas into riparian zones and wetlands and nonpoint source pollution of watercourses by nutrients, sediment and pesticides. <u>Disturbance and pollution of aquatic habitat caused by construction of the road crossing.</u> In addition, for both alternatives, construction of the crossing will require that vehicles and machinery will need to access the watercourse which can result in: • Physical disturbance of aquatic habitat (beyond the footprint of the road); • Pollution through leaks and spills of hydrocarbons (i.e. fuel and oil from construction vehicles and machinery) and other construction materials (e.g. cement) and • Mobilisation of sediment due excavation of the bed and banks and operation of construction vehicles in the watercourse. . As suggested by specialist: - Construction of the road crossing must occur during the drier summer season; - Working areas must be clearly demarcated and no vehicle access or disturbance must take place outside of demarcated areas; - Rehabilitate and naturalise areas beyond the development footprint, which have been affected by the construction activities, using indigenous grass species;

	- Use excavators instead of bulldozers to reduce sedimentation and consolidate the entry and exit points to reduce scouring; - Vehicles must be restricted to travelling only on designated roadways to limit the ecological footprint of the proposed development activities; - Restrict vehicle access to the watercourse to single points that are clearly demarcated; - Excavators and all other machinery and vehicles must be checked for oil and fuel leaks daily. No machinery or vehicles with leaks are permitted to work in the watercourse; - No fuel storage, refuelling, vehicle maintenance or vehicle depots to be allowed within 30 m of the edge of the delineated watercourse; Animal Species Specialist Report (Capensis, May 2024): <u>Potential contamination from pesticides/herbicides/pesticides/herbicides/other agricultural chemicals</u> - 30m Wetland/water course buffer - Strict adherence to application of herbicide/pesticide protocols - Avoid applying aerosolized herbicide/pesticide during windy conditions.
1.4. What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste ?	During the construction of the road, building rubble and general waste associated with the construction activities will be generated. This waste is expected to be minimal. Furthermore, the EMPr deals in length with the management of waste, indicating that the waste management hierarchy must be implemented as far as possible. This will assist in reducing the waste produced on the site and will enable the reusing and/or recycling what waste is produced. During the operational phase, waste will consist of waste from agricultural practices. For example containers and packaging of pesticide, herbicide, fertiliser and any product used in the agricultural process.
1.5. How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	The site inspection identified no heritage resources and it is not expected that the proposed development will have an impact on heritage resources or the heritage value of the area.
1.6. How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be	The proposed farming development will use or potentially impact the following non-renewable resources: 1. Fossil fuels: Used in construction equipment, farm vehicles, and generators (if used). Mitigation measures - manual labour prioritised - Low-energy irrigation; efficient vehicle use - Explore solar options for future energy needs

avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	2. Construction materials: Limited use of materials such as concrete, metal, and treated wood (for fencing or irrigation infrastructure). Mitigation measures - Use existing access routes and dam infrastructure - Minimal new hard infrastructure needed - Reuse of cleared vegetation as mulch 3. Groundwater and surface water: Although renewable under certain conditions, it can become effectively non-renewable if overexploited or degraded. Mitigation measures - Dryland crops; no potable use - Drip irrigation; soil moisture monitoring - Vegetated buffers to improve infiltration
1.7. How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts? 1.7.1. Does the proposed development exacerbate the increased dependency on increased use of resources to	1.7 1. Rain-fed cultivation (dryland) with supplemental irrigation from an existing water source. Impact: Low water abstraction expected, but risk of surface runoff carrying nutrients/pesticides into wetlands. Uncontrolled runoff could degrade wetland function and downstream water quality if not managed. 2. Soil as a growing medium for orchard trees. Impact: Potential for erosion and compaction, particularly on steeper slopes. Loss of topsoil could reduce productivity and disrupt ecosystem services if left unmanaged. 3. Limited encroachment into Critical Biodiversity Areas (CBA). Impact: Some loss of disturbed indigenous vegetation. Could reduce habitat quality or disrupt connectivity if buffers and rehabilitation are not implemented. The development will not jeopardise ecosystem integrity if proposed mitigation is fully implemented. The carrying capacity of the landscape has been respected by: Limiting the development footprint to 11 ha. Applying buffer zones (30 m from wetlands). Maintaining connectivity of surrounding habitats. 1.7.1 The proposed development reduces resource dependency by: • Using existing infrastructure and natural rainfall,

maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)	• Maintaining ecological integrity to support productive land use, • Avoiding the need for large-scale, energy- or water-intensive operations, and • Promoting resilient, regenerative land management aligned with principles of sustainable, de-materialised rural development. It supports long-term, low-resource economic growth, rather than intensifying reliance on finite natural resources.
1.7.2. Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources this the proposed development alternative?)	1.7.2 The land is zoned Agricultural Zone I and has been historically used for farming, making continued agricultural use appropriate and lawful. The proposed development represents a responsible, equitable, and optimal use of natural resources, and: • Does not compromise the rights of future generations, • Supports current socio-economic needs, • Avoids alternative uses with higher opportunity costs, and • Aligns with national and provincial sustainable development and land-use policies.
1.7.3. Do the proposed location, type and scale of development promote a reduced dependency on resources?	1.7.3 Location: the site/activity is on land already zoned for agricultural use and the development relies mostly on existing infrastructure. Type: the dryland farming operation will reduce water use from the on-site dam. In addition, the type of trees proposed to be grown are perennial, long-living trees which means that there will be low soil disturbance over time. Scale: The development is limited to 11 hectares, downscaled from the original 15 ha proposal in response to environmental sensitivities.
1.8. How were a risk-averse and cautious approach applied in terms of ecological impacts?:	1.8 1. Early and independent specialist input. 2. Consideration of seasonal survey limitations. 3. Avoidance of high sensitivity areas leading to the reduction in development footprint. 4. Conservative design and infrastructure planning. 5. Ecosystem protection measures.
1.8.1.What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	1.8.1 1. Timing of Biodiversity Surveys Assumption: The vegetation and fauna assessments conducted during autumn are sufficiently representative. Uncertainty: Many geophytes and annual plant species flower in spring, meaning some species of conservation concern may have been missed or under-represented.

1.8.2.What is the level of risk associated with the limits of current knowledge? 1.8.3. Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development? What measures were taken to enhance positive impacts?	Gap: Lack of a spring-season follow-up survey for more comprehensive species identification. As per the Terrestrial Biodiversity Assessment, May 2024: "it should be noted however that due to the year-round precipitation experienced in the Garden Route region this limitation is not considered to have had a highly significant effect on sampling efforts." 2. Accuracy of Conservation Mapping Assumption: The Western Cape Biodiversity Spatial Plan (WCBSP 2017) and other mapping tools accurately reflect site sensitivity. Uncertainty: Ground-truthing by specialists found some misclassified areas (e.g., degraded patches mapped as Critical Biodiversity Areas). Gap: WCBSP updates post-report compilation (only with reference to the Terrestrial Biodiversity Assessment and Animal Species Specialist Report) were not reflected in the final specialist reports, though these specialists deemed this non-critical to their findings. 3. Effectiveness of Buffer Zones Assumption: A 30 m vegetated buffer will be effective in preventing pesticide and nutrient runoff into wetlands. Uncertainty: Effectiveness depends on maintenance, vegetation density, and compliance with no-application zones. Gap: No empirical site-specific data on buffer efficiency under local rainfall and soil conditions. 4. Faunal Presence and Movement Assumption: Sensitive species (e.g. Duthie's Golden Mole) are largely outside the development footprint. Uncertainty: Actual distribution and population density within the broader site is not fully known. Gap: No detailed trapping or telemetry data was collected. 5. Long-Term Soil Erosion Risk Assumption: Contour planting and cover crops will adequately control erosion on steep slopes. Uncertainty: Performance of these measures under extreme weather events or farming practice changes is not guaranteed. Gap: No detailed erosion modeling or runoff simulation conducted. This is non-critical to the assessment findings. 6. Hydrological Impacts of Road Construction Assumption: Use of culverts and dry-season construction will maintain wetland hydrology.

	Uncertainty: The long-term effects of the road on subsurface flows and diffuse wetland recharge are uncertain. Gap: No pre-construction hydrological baseline monitoring data or modeling provided. This is non-critical to the assessment findings. *All assumptions, uncertainties and gaps in knowledge experienced by specialists have been mitigated using substantive supportive data. 1.8.2 The level of risk associated with the limits of current knowledge for the proposed development at Erf 385, Hoekwil is assessed as low to moderate, provided that all mitigation measures and precautionary buffers identified in the Basic Assessment Report (BAR) are fully implemented and monitored. 1.8.3 A risk averse and cautious approach, as per the principles in Section 2 of NEMA, has been applied in the identification and assessment of potential impacts. The consequences of all impacts have been identified in the impact assessment, and mitigation measures provided to ensure the impacts are as low as possible. In so doing, the precautionary principle of environmental management has been applied throughout the Basic Assessment Process to ensure that all potential negative (and positive) ecological and socio-economic impacts are assessed. The level of risk associated with the limits of current knowledge described above is therefore considered to be low.
1.9. How will the ecological impacts resulting from this development impact on people's environmental right in terms the following: 1.9.1. Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?	The proposed development does have the potential to affect environmental rights, especially if ecological degradation occurs or if water resources are compromised. However, with proper planning, environmental management, and implementation of specialist recommendations, the development can proceed in a manner that balances agricultural growth with the protection of environmental rights. Nevertheless, some negative impacts are anticipated as a result of the proposed development. These can be summarised as follows: • Potential temporary noise, dust impacts during construction phase of road and establishment of orchards. • Potential visual impacts during construction phase. • Loss of wetland habitat during the establishment of orchards. • Disturbance and pollution of aquatic habitat caused by construction of the road crossing. • Pollution of watercourse caused by surface runoff of sediments, pesticides and nutrients from orchards. • Pollution of watercourse caused by spray drift during pesticide application. • Impairment of wetland habitat caused by increased stormwater inputs. • Loss of habitat likely to support species of conservation concern. • Loss of species of conservation concern (SCC).

1.9.2. Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc.	• Anthropogenic disturbance (noise/vibration from machinery and people) • Possible contamination by pesticides, herbicides and other chemicals. • Loss of terrestrial ecology including: vegetation type, ecological processes, indigenous vegetation, ecologically important species, terrestrial habitat and ecological connectivity. The above listed negative impacts have, however, been assessed in detail and comprehensive mitigation measuring and monitoring specifications have been provided and are included in the BAR and EMPr. Removal of all Invasive Alien Plants (IAPs) in buffers. The removal of these plants is key to allow for the recovery of the natural edaphic climax community, thereby improving habitat quality for resident faunal populations. The rehabilitation must be undertaken in a phased approach, according to a rehabilitation plan and undertaken by a qualified botanist or restoration ecologist.
1.10. Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?	Human wellbeing, livelihoods, and ecosystem services are inextricably linked. The proposed development is expected to contribute positively to local livelihoods by creating employment opportunities, thereby enhancing the wellbeing of residents in the area. While some concerns about the potential loss of eco-tourism income may be raised, these are not directly applicable in this case, as the site in question has historically been used for farming. Rather than representing a shift away from conservation or tourism, the development seeks to optimise the land's agricultural potential. This supports broader goals of food security, rural development, and job creation, while aligning with the area's historical land use. It being a previous farmed area heritage sites are unlikely.
1.11. Based on all of the above, how will this development positively or negatively impact on ecological integrity /objectives/targets/ considerations of the area?	Addressed in point 1.9
1.12. Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	The proposed development has incorporated specialist recommendations by reducing its footprint to areas where environmental impacts are expected to be lower and more readily mitigated.
1.13. Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?	Cumulative impacts have been assessed as part of each impact in Section H of the BAR.

Section 2: Promoting Justifiable Economic and Social Development	
2.1.What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?: 2.1.1. The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area, 2.1.2. Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.), 2.1.3. Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and 2.1.4. Municipal Economic Development Strategy ("LED Strategy").	George Municipality IDP 2022-2027 The primary sector—dominated by agriculture, forestry, and fishing—accounted for only 3.9 per cent of the economy but remains a critical employer in rural areas. Agriculture remains vital for local employment, 3.3.1.1 sustainable development goals (SDGS) 2030 Goal 1: end poverty in all its forms everywhere. Goal 2: end hunger, achieve food security and improved nutrition, and promote sustainable agriculture. The garden route growth and development strategy was adopted in 2021 off the bat of an intensive series of engagements between all spheres of government, the private sector and civil society. These engagements were facilitated to co-create a shared vision for the region and identify key priority areas to drive collective action. These priorities are: 3. Resilient agriculture There are cross cutting local and regional environmental challenges and opportunities recognised in the msdf. These include: Ensuring water and food security, agriculture and forestry preservation. Promote conservation agriculture: Effectively manage erosion using conservation agriculture methods…management of contour lines. The George Municipality has identified agriculture as a strategic sector within the broader George economy. The reason for this focus is that agriculture provides economic equity and helps people to prosper. More than 8000 people are working in the agriculture sector in the George municipal area and thus the sector is a major source of employment in the region. Agriculture impacts global trade because it's tied to other sectors of the economy, supporting job creation and encouraging economic development. Cities with strong agricultural sectors experience employment growth in other sectors, according to the Western Cape Department Of Agriculture. Cities with agricultural productivity growth and robust agriculture infrastructure also have higher per capita incomes, since producers in these cities innovate through technology and farm management practices to boost agricultural productivity and profitability. Retained rural areas include undeveloped (wilderness), rural and agricultural areas that must be retained, protected and/or improved (e.g., alien clearing). The protection of these areas is critical to ensure that the ecosystems which support life in the George area function optimally and that agriculture as a key driver of the local economy retains its viability.

	The WC Department of Agriculture has rated all areas of George, except a few natural (steep/biodiversity/hydrology) areas as relatively high potential agricultural land (high within the Western Cape context), as per their multi-layer, technical data set weighting.
2.2.Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area? 2.2.1. Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?	Employment and Local Livelihoods Impact: The development is expected to generate both short-term construction and long-term agricultural employment opportunities, particularly in farming, irrigation maintenance, harvesting, and processing. This will enhance income security for local households, many of whom are reliant on seasonal or informal employment. Relevance to Local Objectives: This supports the Garden Route District's socio-economic goals of poverty reduction, rural upliftment, and inclusive economic growth. Skills Development and Capacity Building Impact: Agricultural operations may provide training in orchard management, irrigation systems, and sustainable farming practices, potentially improving long-term employability and skills among local residents. Relevance: Aligns with local development frameworks aimed at skills development and youth employment in rural areas. Food Security and Agricultural Productivity Impact: The production of avocados and macadamias contributes to national export markets, and supports agricultural diversification in the region. This enhances food system resilience, albeit for cash crops rather than staple foods. Relevance: Supports Western Cape's Provincial Strategic Goals related to agriculture-led growth and food security, while contributing to the area's economic resilience.
2.3.How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?	Physical Needs: The development contributes to basic physical needs by creating employment, which enables households to afford food, shelter, healthcare, and other essentials. Access to regular income improves household food security and supports better nutrition, especially for women, children, and the elderly. Psychological Wellbeing: Employment and skills development can promote dignity, self-worth, and purpose, especially in rural areas where poverty and unemployment often lead to social stress and disempowerment. Stable income opportunities can reduce anxiety and uncertainty about the future, supporting overall mental wellbeing. Developmental Needs: The project is expected to provide on-the-job training and potential upskilling in orchard management, irrigation systems, and sustainable farming techniques. This contributes to human capital development, especially among youth and historically disadvantaged groups, improving long-term employability and personal growth. Cultural Needs and Respect for Local Identity

2.4.Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and longterm? Will the impact be socially and economically sustainable in the short- and long-term?	The development is located on previously farmed land, avoiding displacement of culturally or spiritually significant sites. By retaining the agricultural character of the landscape and avoiding conflict with heritage areas or sacred spaces, the development respects the cultural continuity and identity of the Hoekwil community. Social Cohesion and Inclusion Job creation and fair labour practices can reduce inequality and social tension, while improving community morale and cohesion. The project also has the potential to strengthen local value chains, encouraging local procurement and economic participation. The DEA&DP Need and Desirability Guideline (2014) defines intra- and intergenerational equity as ensuring that development is sustainable enough to ensure that the needs of the present generation are met without compromising the ability of future generations to meet their own needs. On condition that the recommendations of the EAP and the various specialists are implemented, the development is sustainable in that it will not impede the ability to meet the needs of the present generation (intragenerational equity) or of future generations (intergenerational equity). Intra-generational Equity The development is anticipated to contribute positively to intra-generational equity, particularly within the local community, through the following: - Employment Opportunities: The project creates inclusive job opportunities for both skilled and unskilled workers, benefiting a cross-section of the community, including women, youth, and previously disadvantaged individuals. - Local Economic Participation: By sourcing labour and potentially services locally, the development encourages economic inclusion and equitable participation in the agricultural value chain. - Fair Resource Use: The development has considered environmental limitations (e.g. water availability, sensitive vegetation) and has reduced its footprint to minimise resource competition, promoting equitable access to shared natural resources among community members. - Access to Skills Development: On-the-job training supports equitable access to knowledge and capacity-building, improving long-term employment prospects for diverse community groups. Inter-generational Equity From a long-term perspective, the project includes elements that support inter-generational equity, such as: - Sustainable Land Use: The use of previously farmed land—rather than clearing pristine vegetation—helps preserve remaining natural ecosystems for future generations. - Resource Management and Mitigation: Specialist input and a reduced development footprint help ensure that soil, water, and biodiversity are managed

	responsibly, preventing resource degradation that could limit future land use potential. - Economic Stability and Resilience: Establishing a productive agricultural enterprise can contribute to the economic sustainability of the region, providing continued employment and food production for future generations, provided that water use and soil health are managed effectively. - Risks and Considerations: The primary risk to inter-generational equity relates to water use, given the water-intensive nature of avocado and macadamia farming. If not carefully managed, this could affect future availability of water for agriculture, ecosystems, or domestic use.
2.5. In terms of location, describe how the placement of the proposed development will: 2.5.1. result in the creation of residential and employment opportunities in close proximity to or integrated with each other, 2.5.2. reduce the need for transport of people and goods, 2.5.3. result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport), 2.5.4. compliment other uses in the area, 2.5.5. be in line with the planning for the area, 2.5.6. for urban related development, make use of underutilised land available with the urban edge,	The location supports the principle of spatial justice by aligning employment generation with existing settlement patterns, in line with local and provincial development goals for integrated rural development. The proposed development is situated within a rural area that includes existing residential settlements and farmworker accommodation in and around Hoekwil, Wilderness. By establishing a commercial avocado and macadamia orchard on previously farmed land, the development will create employment opportunities in close proximity to where many workers already reside. Compatibility with Existing Land Uses: The area includes a mix of agriculture, rural homesteads, eco-tourism enterprises, and conservation areas. By reactivating previously cultivated farmland, the proposed project maintains land use continuity and enhances the area's agricultural productivity without conflicting with conservation goals or the tourism economy. Alignment with Planning Policy: - -The project is in line with the Garden Route District Municipality's Integrated Development Plan (IDP), which emphasises rural economic development, food security, and job creation. - It supports the objectives of the Garden Route Spatial Development Framework (SDF), which promotes the sustainable intensification of agriculture in appropriate areas while preserving environmental assets. - The development also aligns with SPLUMA (Spatial Planning and Land Use Management Act) principles, particularly those of spatial justice, efficiency, and sustainability. - At a provincial level, it contributes to the Western Cape's SmartAgri Plan and Green Economy Strategy, which promote climate-resilient, sustainable agriculture in rural areas. N/A

2.5.7. optimise the use of existing resources and infrastructure,	Development will occur on a farm where other newly established orchard have been established. Irrigation water is available for the new orchard establishment from the existing irrigation infrastructure on the farm.
2.5.8. opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement),	N/A N/A
2.5.9. discourage "urban sprawl" and contribute to compaction/densification,	N/A
2.5.10. contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs,	Mitigation discussed above as well as sustainable farming practices already used on other new established orchards on the farm.
2.5.11. encourage environmentally sustainable land development practices and processes,	Only one location.
2.5.12. take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.),	N/A
2.5.13. the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential),	N/A .
2.5.14. impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and 2.5.15. in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?	N/A.
2.6. How were a risk-averse and cautious approach applied in terms of socio-economic impacts?:	As stated in Section 1.8 of this document, a risk-averse and cautious approach was applied in the impacts that were identified as a result of the proposed development. The mitigation measures provided also indicate the implementation of a risk-averse approach in order to avoid

	significantly negative impacts on the surrounding environment.
2.6.1. What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?32	Discussed in point 1.8.1
2.6.2. What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?	The nature of the development, and the fact that socio-economic impacts are anticipated to be minimal while negative biophysical impacts are mitigable to acceptable levels, means that any limitation in knowledge is acceptable and does not pose a risk.
2.6.3. Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	A risk averse approach was applied to the development in the assessment and identification of impacts, following recommendations of specialist.
2.7.How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following: 2.7.1. Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?	The proposed development will result in minimal negative socio-economic impacts. While some potential negative socio-economic impacts are associated with agricultural developments of this nature, the proposed project has taken proactive steps to avoid and minimise harm, in line with the environmental right to a safe and healthy environment. Through responsible planning, management, and community engagement, the development seeks to ensure that socio-economic benefits are achieved without undermining the health, safety, or dignity of affected individuals and communities.
2.7.2. Positive impacts. What measures were taken to enhance positive impacts?	Through deliberate, inclusive, and sustainable planning, the proposed development is well-positioned to positively impact the wellbeing, livelihoods, and economic resilience of the local community. Enhancement measures will ensure that these benefits are maximised, equitably distributed, and sustained into the future—contributing meaningfully to environmental rights and rural development.
2.8.Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socioeconomic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?	The wellbeing of local communities and the sustainability of their livelihoods are interdependent with the health of local ecosystems. While the proposed development has the potential to bring important socio-economic benefits, it also introduces ecological risks through increased resource use and land transformation. However, by implementing appropriate avoidance, mitigation, and monitoring measures, the project can strike a balance—maximising human benefit while protecting the natural systems that those benefits ultimately rely on.
2.9.What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	Specialist studies were conducted, and their findings were carefully considered to identify the most suitable area for development and to inform the implementation of appropriate mitigation measures aimed at minimising potential negative impacts.
2.10. What measures were taken to pursue environmental justice so that	Specialist studies were conducted, and their findings were carefully considered to identify the most suitable area for

adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered? 2.11. What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	development and to inform the implementation of appropriate mitigation measures aimed at minimising potential negative impacts. By focusing on local hiring, capacity development, sustainable resource use, the development actively promotes equitable access to environmental benefits and socio-economic opportunities. These measures contribute to the broader goals of social justice, intergenerational equity, and improved human wellbeing, while protecting the environmental base upon which these benefits depend.
2.12. What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	The proposed agricultural development has integrated environmental health and safety considerations at each stage of its life cycle. Through the implementation of the EMPr, compliance monitoring, and proactive stakeholder engagement, the project commits to minimising risks to people and the environment, while fostering a culture of accountability and continuous improvement.
2.13. What measures were taken to: 2.13.1. ensure the participation of all interested and affected parties, 2.13.2. provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, 2.13.3. ensure participation by vulnerable and disadvantaged persons	The Public Participation Process will be undertaken as part of the Basic Assessment is detailed in section C of the BAR. Comprehensive public participation measures will be employed to ensure an equal opportunity for all potential Interested and Affected Parties (I&APs) to participate and comment, including vulnerable and disadvantaged persons, regardless of understanding, skills and capacity. For the first iteration of Public Participation the draft BAR will be made available to identified I&APs and Organs of State for their perusal and comment by the following means: • A media notice inviting members of the pubic to provide comment on the BAR. • Site notices will be placed in conspicuous locations around the site. • An electronic copy of the BAR will be placed on the EAP's website • Notification letters will be circulated via email and post to all registered I&APs outlining the process to be followed for the proposed activity. The Public Participation Process will be undertaken in accordance with this plan to ensure that all interested and

2.13.4. promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means, 2.13.5. ensure openness and transparency, and access to information in terms of the process, 2.13.6. ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge, and 2.13.7. ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted?	affected parties can participate, regardless of their understanding, skill, or any potential disadvantage. As stated in the EMPr (Appendix H), training and environmental awareness is fundamental to the successful implementation of the EMPr and to the protection of the environment. Therefore, all personnel whose work may result in an impact on the environment must receive appropriate training on the environmental procedures to be followed. These measures will raise environmental awareness and thereby contribute to community wellbeing by decreasing environmental degradation of the area. To ensure transparency, all specialist information is attached to the BAR. The public will be notified that their comments will be addressed and that they will be able to view their comments with responses in the next version of the BAR. All information received from all public participation iterations is included in the next draft of the report so that the registered public have sight of all comments received and how comments have been addressed. Every comment received will be addressed and considered, and where necessary, changes will be made to the development proposal. In this way, the public participation process will take cognisance of the interests, needs and values expressed by all I&APs based on all forms of knowledge. Participation by all I&APs, including women and youth, will be promoted and opportunities for engagement will be provided during the environmental assessment process. All comments received from Interested and Affected Parties will be given due consideration and will be addressed. No Interested and Affected Parties will be discriminated against based on their gender or age or any other factor.
2.14. Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g.. a mixture of low-, middle-, and high-income	It is anticipated that the construction of access roads, the establishment of orchards, and the operational phase of the project will create employment opportunities, particularly benefiting low-income individuals.

housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?	
2.15. What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?	An EMPr (Appendix H) has been compiled which details the potential impacts of the facility, including the potential safety risks to employees on site during construction phase. The EMPr also specifies the extent to which workers will be informed of the work to be undertaken. Contractor shall ensure that all initial and new staff attend an environmental awareness training session within five working days of commencement of work on the site. In addition to the environmental awareness programme included in the EMPr, health and safety concerns will also be addressed by the implementation of occupational health and safety legislation. An Environmental Control Officer will be appointed to monitor compliance.
2.16. Describe how the development will impact on job creation in terms of, amongst other aspects: 2.16.1. the number of temporary versus permanent jobs that will be created 2.16.2. whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area) 2.16.3. the distance from where labourers will have to travel 2.16.4. the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits) *2.16.5. the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.)*	The proposed development will generate temporary employment opportunities during the construction of access roads and the establishment of orchards, and will lead to the creation of some permanent jobs during the operational phase of the project. It is unknown at this stage as to the quantity of temporary vs permanent jobs that will be created. During the construction phase, local labour is expected to fill the job opportunities, as their skills are likely to match the requirements for road construction and orchard establishment. Furthermore, some of these workers may be retained for employment during the operational phase. The proposed development is situated within a rural area that includes existing residential settlements and farmworker accommodation in and around Hoekwil, Wilderness. By establishing a commercial avocado and macadamia orchard on previously farmed land, the development will create employment opportunities in close proximity to where many workers already reside. The job opportunities created by the proposed development will primarily be located within or very close to the Hoekwil and surrounding communities, ensuring that local residents can directly benefit from employment without the need to travel long distances. This proximity supports the equitable distribution of socio-economic benefits to the communities most affected by the development. Similarly, the environmental and social impacts of the project, such as land use changes and resource use, are confined to the development footprint within the same area. By aligning the location of employment with the location of potential impacts, the project ensures that the costs and benefits of development are shared fairly among local stakeholders, minimizing undue burden on communities that do not receive corresponding benefits.
2.17. What measures were taken to ensure: 2.17.1. that there were intergovernmental coordination and harmonisation of policies,	The Basic Assessment Process considered all legislation and policy applicable to the development and endeavoured to ensure coordination between the requisite processes. Please see Section C and D of the BAR.

legislation and actions relating to the environment 2.17.2. that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	No comments received to date as PPP still to be conducted.
2.18. What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage.	The proposed development recognizes the environment as a public trust and common heritage, in line with the principles set out in the National Environmental Management Act (NEMA) and the Constitution of South Africa. Several key measures have been implemented to uphold these principles: Environmental Impact Assessments and Specialist Studies: Thorough assessments were conducted to identify sensitive ecosystems, and key environmental resources. These informed the selection of the development footprint to minimize ecological disturbance and preserve critical natural assets for public benefit. Public Participation and Transparency: An inclusive and transparent public participation process will be undertaken to ensure that local communities and stakeholders could express their views and concerns. This process supports the principle that the environment is a shared resource that must be managed in the public interest. Incorporation of Mitigation Measures into the EMPr: A comprehensive Environmental Management Programme (EMPr) has been developed, mandating ongoing monitoring, mitigation, and adaptive management to protect environmental quality throughout the project lifecycle. Sustainable Resource Use and Conservation Practices: The development incorporates best practices in water use efficiency, soil conservation, and biodiversity protection, ensuring that environmental resources are used beneficially without compromising their availability and integrity for future generations. Legal Compliance and Enforcement: The project will adhere to all relevant environmental legislation and regulatory frameworks, ensuring accountability and that the environment is safeguarded as a public asset.
2.19. Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	The mitigation measures proposed are considered to be realistic, and through the implementation of the mitigation measures, a long-term environmental burden will be avoided. The mitigation measures provided by the biodiversity, animal species and terrestrial specialists are deemed adequate to mitigate these impacts to an acceptable level without leaving an unmanaged burden / legacy behind.
2.20. What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?	Provision has been made in the EMPr for the issuing of fines to both individuals as well as the contractors as a whole. This possibility of fines will assist in ensuring compliance to the mitigation measures outlined in the EMPr, thereby preventing pollution, environmental degradation and any resultant adverse health effects. Should environmental authorisation be granted for the project, adherence to the EMPr will form a condition of authorisation. Responsibility for the implementation of the specifications of the EMPr and for compliance with any authorisations lies with the Applicant.

2.21 Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	Preference was given to areas previously disturbed or degraded, to minimize habitat loss and fragmentation
2.22. Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	The proposed development will result in mostly positive socio-economic impact of which is the creation of temporary employment opportunities during the construction phases of the development. The proposed development is expected to contribute positively to local livelihoods by creating employment opportunities, thereby enhancing the wellbeing of residents in the area. The activity supports broader goals of food security, rural development, and job creation, while aligning with the area's historical land use.