



**MULTI-PURPOSE
BUSINESS SOLUTIONS**

**Scoping for a Socio-Economic Impact Assessment underpinned by an
Agriculture Viability Analysis and Socio-economic Cost-Benefit
Assessment for the proposed Hoogeland Coastal Farmsteads
Development, George**



**Draft Consultative Report
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MULTI-PURPOSE BUSINESS SOLUTIONS CC

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Executive Summary

Attwood Property Developments (Pty) Ltd acquired the rights to lodge land development applications for a rural Agricultural Farmstead development and a rural Farm Village where settlers with valid ESTA tenure rights can be accommodated. The proposal is to reorganise the farm boundaries to create an agricultural settlement comprising small farms with a minimum extent of 5 ha, together with communal equestrian facilities, including a polo field, stables, paddocks, dressage rings, and riding trails. The farms north of the N2 National Road will be reduced from six to five cadastral units, and the proposed agricultural farms south of the N2 National Road will comprise 81 small farms that will be part of a Homeowners Association.

Consent for the consolidation and subdivision of several farms to create the 529-ha Hoogeland development was granted in 2021 by the Department of Agriculture, Land Reform and Rural Development, but the Consent has not been registered and expires on 10 September 2026. A new Reconfiguration Proposal for the Hoogeland footprint entails subdividing 529 ha into 57 small-scale agricultural farms, each with a minimum size of 5 ha, and 24 conservation parcels, resulting in 81 subdivided freehold properties. The proposal ensures the properties remain agricultural, while owners of portions sold on a freehold basis could establish a farming enterprise on a 4,5-ha portion of the farm unit, with a maximum hard-surface footprint of 0,5 ha for a dwelling and other supporting infrastructure.

The proposed Hoogeland Coastal Farmlands project will benefit the economies of George and the Garden Route District (Section 3)

All economic activities associated with the construction phase would benefit the primary, secondary, and tertiary sectors of the local economy, requiring raw materials (e.g., sand mining), construction materials (e.g., bricks, cement), and business services (e.g., professional services). In addition, household spending by residents will induce spending on salaries and wages, benefiting all three economic sectors. The operational agricultural activities and those on conservation parcels will support growth and employment across all three sectors. This will benefit the George economy, which registered an unemployment rate of 18,4% in 2022, with 32,6% of the working-age population not economically active.

The Reconfiguration Proposal aligns with national, provincial, and local policies and strategies, supporting spatial planning and advancing strategic goals at all levels (Section 5)

George Municipality's approach to rural development is based on protecting rural land and resources, supporting agriculture and tourism, improving livelihoods and infrastructure, strengthening existing rural settlements, and integrating rural economies into the broader regional economy. The proposed development involves establishing small-scale farming units and securing residential rights for farm workers and beneficiaries with established tenure on the Hoogekraal Farm 238 property. The proposal aligns with the WCPSDF by improving the agricultural potential of the Hoogekraal footprint, which is not currently farmed productively, while also safeguarding the rural character and scenic assets. The proposed Hoogeland reconfiguration retains agriculture where applicable and, through viable farming practices, would generate economic growth and employment opportunities in the George Municipality. Although the George SDF discourages new rural settlements, the proposed residential village for farm workers aims to formalise the tenure rights of existing beneficiaries on the farm, rather than creating a new settlement.

An Agricultural Viability Analysis was conducted to assess the viability of selected agricultural activities within the Hoogekraal footprint (Section 6)

Pastures for grazing were, and to some extent still are, the historical farming enterprise of the Hoogekraal Farms. However, cattle grazing and feed production are declining in favour of higher-value crops such as avocado and macadamia. Although about 40% of the Hoogekraal footprint is suitable for these two crops, limited irrigation capacity (supplemental water requirements) reduces the viable area for avocado and macadamia farming to 25 ha and 23 ha, respectively. Farming avocados and macadamia with a more focused, capital-intensive strategy, concentrating production on higher-potential soils, would permit only a small cultivated footprint because of water constraints and the assumption that future returns will take time to realise. Both the avocado and macadamia farming models show negative NPV and a modest IRR; however, they perform better on a smaller agricultural footprint than the historic scenario of dryland pastures and livestock.



If one assumes that only 25 ha of avocado and 23 ha of macadamia orchards are viable, regardless of the farming enterprise's profitability, it would still be possible to reconfigure the remaining agricultural portion (excluding the conservation portion). If the net 290 ha (net of the avocado footprint) and 292 ha (net of the macadamia footprint) are divided by 5 ha (the average envisaged size of the small-scale farming units), the envisaged number of 57 units would still be achieved (all else being equal). This may imply that avocado or macadamia orchards of up to 25 ha could still be included in the proposed reconfiguration without reducing the number of small-scale agricultural units. A "co-operative"/out-grower model could be considered, with orchards located on the most suitable small-scale farms (soil and access to water), while the rest maintain dryland pastures and/or low-intensity vegetables or fruit trees for their own use.

Apart from retaining the land's agricultural capacity, the impact of the number of farming units in the Reconfiguration Proposal should be weighed against the fact that most current farm units are not economically viable or sustainable. The proposed subdivisions will therefore not result in the loss of a single economically viable farm unit.

Socio-Economic Cost-Benefit Analysis (Section 7) of the Reconfiguration Proposal against the continued use of the property for dryland pastures and livestock farming, or the introduction and cultivation of high-value crops such as avocados and macadamia

Based on their water constraints, these high-value (irrigated) crops would be restricted to 25 ha of avocados, or 23 ha of macadamias, or a mixture of these that doesn't exceed 24 ha. The owners may also consider other crops, such as vegetables.

A financial analysis was prepared to assess the agricultural potential of the following three Scenarios:

- **Scenario 1:** A reconfiguration of 529 ha to include 57 small-scale farming units and 24 conservation parcels as opposed to 257 ha of dryland (rain-fed) pasture and livestock production.
- **Scenario 2:** A reconfiguration of 529 ha to include 57 small-scale farming units and 24 conservation parcels as opposed to 25 ha of avocado orchards (constrained due to irrigation water).
- **Scenario 3:** A reconfiguration of 529 ha to include 57 small-scale farming units and 24 conservation parcels as opposed to 23 ha of macadamia farming (constrained due to irrigation water).

By categorising the benefits and costs of developing a dwelling on agricultural smallholdings with a farming enterprise and on conservation parcels with a conservation lifestyle, it is possible to compare the current values of the Reconfiguration Proposal with those of conventional farming for dryland pasture, avocado, or macadamia. The Reconfiguration Proposal required various assumptions regarding building costs, uptake of opportunities, and fiscal benefits to the local authority. These cost and benefit elements were categorised and aggregated across the three scenarios. The annualised nominal free cash flow for conventional farming and the Reconfiguration Proposal (the socio-economic value addition) was discounted to present value in current terms. The results are presented under a Micro cost-benefit approach, which tests whether the capital invested in the Reconfiguration Proposal is recovered from the recurring value of ongoing farming and conservation operations, and a broader macroeconomic impact approach, which also includes construction income, property rates and induced household spending. A positive Net Present Value (NPV) of conventional farming would be deducted from the NPV of the Reconfiguration Proposal under either approach.

The results suggest that conventional farming, whether with dryland pastures and livestock or with avocados or macadamia, is not economically viable under the applied assumptions. Higher-value crops are constrained by the availability of irrigation water and, therefore, by the number of hectares that could be planted, suggesting that scale may be a challenge in justifying working capital and establishment costs. This results in a negative NPV; although the Internal Rate of Return (IRR) is positive for avocado and macadamia, it is sub-optimal given the risk associated with the nature and scope of farming. This represents an opportunity cost, implying that funding losses should be channelled to the next-best option, namely the Reconfiguration Proposal. Subtracting a negative NPV for conventional farming effectively adds to the NPV of the Reconfiguration Proposal, as it represents a saving.

Under the Micro cost-benefit approach, the decision-relevant test, the capital invested in the Reconfiguration Proposal is not recovered from the recurring value of ongoing farming and conservation operations alone, in any of



the three scenarios (benefit-cost ratio ranging from 0,161 to 0,164). Under the broader macroeconomic impact approach, which also includes construction income, property rates and induced household spending, the Reconfiguration Proposal shows a positive net benefit relative to conventional farming with pastures and livestock, avocado, or macadamia (within the constraints of irrigation water) over 25 years. The questionable feasibility of conventional farming under irrigation water constraints, compared with the Reconfiguration Proposal, which would incur a loss of only 16,2 ha of low-quality soil, suggests the Reconfiguration Proposal remains the preferable option among those assessed, based on its broader economic and social contribution.

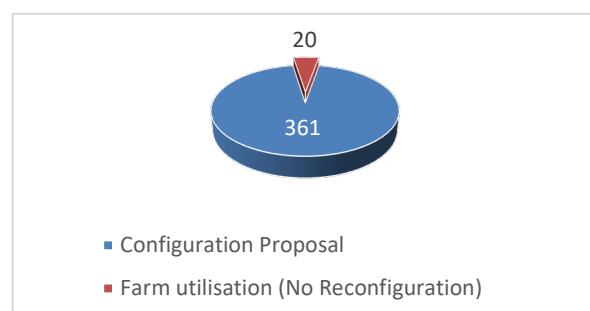
Indicator	Scenario 1	Scenario 2	Scenario 3
Micro cost-benefit approach: Net Present Value (R'million)	(R2 539,4)	(R2 545,7)	(R2 550,3)
Micro cost-benefit approach: Benefit-Cost Ratio	0,164x	0,162x	0,161x
Macroeconomic impact approach: Net Present Value (R'million)	R211,2	R204,9	R200,3
Macroeconomic impact approach: Benefit-Cost Ratio	1,070x	1,067x	1,066x
Internal Rate of Return (IRR) (no reconfiguration)	0,2%	5,8%	7,4%

The table above indicates two approaches for interpreting the cost-benefit results, applied consistently across all three scenarios. The Micro cost-benefit approach asks a narrow, practical question: once the small farms and conservation infrastructure are built, does the ongoing income from farming and conservation activities pay back what it cost to build them? Leaving aside the value generated during construction itself, to avoid counting the same money twice, the answer is no in all three scenarios: building the Reconfiguration Proposal costs more (over R3 billion) than the farming and conservation activities on the reconfigured land are expected to earn back over the following 25 years. This statement compares the Reconfiguration Proposal's construction cost to its ongoing income. It is not a finding that farming with livestock, avocado or macadamia would have been the better choice: that comparison is addressed separately below under the broader Macroeconomic impact approach, and in the agricultural viability analysis in **Section 6**, both of which show conventional farming performing worse than the Reconfiguration Proposal.

The Macroeconomic impact approach takes a broader view, adding construction income, property rates and induced household spending to the recurring operational value. On this basis, all three scenarios show a positive net present value: R211,2 million (Scenario 1), R204,9 million (Scenario 2) and R200,3 million (Scenario 3), with a benefit-cost ratio ranging from 1,066 to 1,070 across the three scenarios. This reflects the total economic and social contribution of the Reconfiguration Proposal, rather than a strict return on the capital invested, and is the approach used in the detailed results in **Section 7.9** and **Section 7.10**.

The Internal Rate of Return reflects the profitability of continuing with conventional farming instead of the Reconfiguration Proposal, calculated without reference to either approach above. It is lowest for dryland pasture and livestock (0,2%) and highest for macadamia (7,4%), though all three remain below the return an investor would typically require, which is why each is treated as a cost (or, where the net present value of farming is negative, a saving) in the cost-benefit analysis rather than a standalone alternative.

The analysis also indicates that conventional farming with any of the three crops would, on average, sustain 20 jobs per annum, while the configuration proposal could sustain 361 jobs per annum. This translates to 18 jobs for the Reconfiguration Proposal for every 1 job associated with conventional farming.





The Reconfiguration Proposal accounts for almost 72,8% of employment, while 27,2% is associated with conservation properties. A breakdown of total employment (permanent and seasonal) indicates that avocado farming is the most labour-intensive, while pastures and livestock are less labour-intensive. However, the dwellings provide the largest staff complement.

Circling back to the Reconfiguration Proposal and whether it would result in a viable farming unit, the proposal assumes avocado or macadamia farming would be accommodated within irrigation water constraints, with the remainder used as pastures for livestock. It is assumed that a small-scale farm would not yield returns sufficient to justify funding the farming enterprise. However, proposals suggest creating a co-operative or outgrower entity that, by consolidating farming across participating owners, would create the scale needed to farm the proposed crops and operate as a viable entity (farming unit). A group structure could be introduced to enable subsidiary entities to farm specific crops. Undoubtedly, economies of scale could be achieved, supporting the viability of the farming enterprise. The Homeowners Association (HOA) could drive such an initiative, creating the alignment and cohesion among owners.

Several potential positive and negative socio-economic impacts are associated with the Proposed Reconfigurations (Section 8)

Cumulative impacts usually relate to other developments or activities in the immediate area that could amplify the positive or negative effects of the proposed reconfiguration of the Hoogekraal Farm during construction and operation. In this instance, cumulative impacts are considered only for similar projects in the immediate area that would require subdivision of existing agricultural land. Rezoning agricultural land for residential or mixed-use purposes in the surrounding area is unlikely to be approved, but may be considered for hospitality and tourism-related uses in isolated cases.

The following table summarises the socio-economic impacts associated with the proposed reconfiguration and their corresponding significance after implementing mitigation measures (i.e., the residual impact). Note that the table shows only impacts not rated by other specialists.

Nature of the Impact	Rating after mitigation (Residual impact)	Cumulative
Construction		
Traffic flows along access roads	Refer to Transport Impact Assessment	
Nuisance factors (dust and noise)	Low (-)	Low (-)
Influx of job-seekers	Low (-)	Low (-)
Increase in local crime	Low (-)	Low (-)
Economic income and employment opportunities	Medium (+)	Medium (+)
Operations		
Increased traffic flows along access roads	Refer to Transport Impact Assessment	
Sense of place	Low (+)	Low (+)
Provision of housing and amenities to farmworkers	Low (+)	Low (+)
Agricultural production and new enterprises	Low (+)	Low (+)
Surrounding property values	Low (+)	Low (+)
Local income and employment opportunities	Low (+)	Low (+)
Revenue for public authorities (relative to conventional farming)	High (+)	High (+)

Mitigation measures

The Developer should consider and implement the measures recommended by various specialists to mitigate potential negative impacts. Monitoring and evaluating socio-economic impacts, along with ongoing assessment of



the outcomes, would provide further insights into the social and economic fabric and the effects on surrounding land users. The following mitigation measures related to the socio-economic context are proposed and should be incorporated into an Implementation Plan as part of the Construction Environmental Management Plan (CEMP) and/or the Operational Environmental Management Plan (OEMP):

- Establish a communication protocol to inform residents and surrounding landowners of activities, timelines and intended impacts (pre-construction and construction) and utilise signage to ensure effective management of traffic across the farming footprint.
- The developer of the farm worker village should use local labour from the George area as a mechanism to support the local economy.
- Owners who engage in low-level commercial or lifestyle farming activities should consider and be encouraged to use the farm workers who are resettled from part of the Hoogkraal Farm to the new farmworker village.
- Contractors should hire George (local) residents whenever possible (construction) and manage any potential influx of job-seekers, and in this way prevent loitering across the expanse of the farming footprint.
- Owners and contractors should agree on mechanisms to secure construction sites to prevent theft, given the expense of the small-scale farming units and the likely spread of construction activity over a wide area.
- Implement recommendations from relevant specialists to mitigate negative impacts related to visual, traffic, and nuisance factors on the sense of place (construction and operations).

Impact Statement

Several socio-economic impacts of the proposed reconfiguration were identified. Positive impacts include providing housing and amenities for 110 farmworkers with tenure rights and increasing agricultural production of high-value crops such as avocados and macadamias (pending water availability). The project would benefit the George Municipality by maintaining employment among existing contractors and triggering successive rounds of spending, thereby generating income for the local economy. An estimated R3,3 billion in capital investment could contribute R2,6 billion (net of import leakage) to the Western Cape's GGP during construction, with the George economy as a significant beneficiary. The project could sustain approximately 11 430 direct, indirect, and induced employment opportunities.

An estimated R2 billion in operational income could generate R2,5 billion (net of import leakage) in nominal terms over 25 years for the Western Cape economy's GGP. It could also create 6 462 direct, indirect, and induced employment opportunities over 25 years, with salaries that could boost the economic income by R1 080,2 million over 25 years, or roughly R43,2 million per year.

Farming avocados and macadamia with a more focused, capital-intensive strategy, concentrating production on higher-potential soils, would allow only a small cultivated footprint because of water constraints and the assumption that future returns will take time to realise. Both the avocado and macadamia farming models show negative NPV and a modest IRR; however, they perform better on a smaller agricultural footprint than the historic scenario of dryland pastures and livestock.

Over 25 years, the net benefit of the Reconfiguration Proposal outweighs farming with pastures and livestock, or avocado or macadamia (within irrigation water constraints), on a conventional basis. The questionable feasibility of conventional farming under irrigation water constraints, compared with the Reconfiguration Proposal, which would incur a loss of only 16,2 ha of low-quality soil, suggests that the proposal would deliver greater socio-economic benefit if implemented. Potential (minor) negative impacts include increased traffic, loss of sense of place, nuisance factors, and an influx of job seekers during construction. If the general farming footprint is well managed and the recommended mitigation measures are implemented, the significance of these impacts would be low to moderate.

Our assessment indicates that the socio-economic benefits of the proposed Reconfiguration outweigh any potential socio-economic drawbacks as mentioned above. As a result, no fatal socio-economic flaws have been identified or are expected for the proposed reconfiguration of the Hoogeland Farmstead development.



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1 BACKGROUND

1.1 Introduction

Attwood Property Developments (Pty) Ltd proposes a rural agricultural farmstead development and a rural village to accommodate current settlers (farm workers) with valid ESTA tenure rights. This requires an application to rezone and subdivide 32 portions of Farm Hoogekraal No 238 and two portions of Farm Buffelsdrift No 227, George. The Applicant envisages 57 Agricultural farms and 24 Nature Conservation Farms, as well as a Farming Village to house 110 farmworker families with permanent tenure rights.

The proposed Hoogeland Coastal Farmsteads and Farming Village requires a new application for the rezoning and subdivision of 32 portions of the Farm Hoogekraal No 238 and two portions of the Farm Buffelsdrift No 227, George (Marika Vreken, 2026). The Consolidation, Rezoning and Subdivision Application for the proposed development stated that, "The 34 land parcels south of the N2 National Road will form the application area for the 'Hoogeland Coastal Farmsteads'. These portions will be consolidated into a single property to create a farm of ± 530 ha, followed by the rezoning of the consolidated Farm from "Agriculture Zone I" and "Business Zone III" to a "Subdivisional Area" overlay zone in terms of Section 15(2)(a) of the Land-Use Planning By-Law for George Municipality, 2023."

Dr Jonathan Bloom of Multi-Purpose Business Solutions was appointed as an independent consultant to prepare a Socio-Economic Impact Assessment of the proposed development. Dr Bloom (PhD, Corporate Finance) is the managing member of Multi-Purpose Business Solutions and was a professor of real estate at Stellenbosch University until 2013. He has conducted more than 100 socio-economic impact assessments and other evaluations as an independent consultant for real estate and various development projects across Southern Africa. Jonathan has research skills in designing and executing research projects from both qualitative and quantitative perspectives. He majored in statistics, finance, and business management, and his expertise in statistical modelling of economic factors and cost-benefit analyses has helped clients assess the socio-economic impacts of various projects. Refer to **Annexure C** for a declaration confirming Dr Bloom's independence, and **Annexure D** for his *Curriculum vitae*.

1.2 Terms of Reference

The Socio-Economic Impact Assessment includes the following:

1. Description and understanding of the nature and scope of the proposed project, location, layout, etc.;
2. An overview of economic development patterns in the George and Garden Route District Municipalities;
3. A socio-demographic and economic profile of the local population;
4. Contextualise the proposed development in terms of spatial planning, strategic documents and other guidelines to assess the fit from an economic perspective;
5. Prepare a Socio-economic Cost-benefit analysis to assess conventional farming versus lifestyle farming with the retention of the property for Agriculture;
6. Prepare an Agriculture Potential Study to assess historical farming (grazing and pastures versus farming with higher value crops of avocados and macadamia nuts
7. Identify and assess possible social and economic impacts/consequences of the proposed development;
8. Ascertain the overall monetary benefits, contribution to economic income and job creation potential; and
9. Propose a framework for monitoring and evaluation of the socio-economic impacts.

1.3 Approach & Methodology

Socio-economic cost-benefit analysis and socio-economic impact analysis are not directly comparable, but they are complementary, offering both a micro-level appraisal and a macroeconomic assessment of the proposed

development. Our approach to assessing the socio-economic impacts of the proposed development is shown in **Figure 1**. The illustration indicates that evaluating a project's financial feasibility and long-term viability is a vital first step, as only a financially sustainable project can yield long-term economic benefits. It must also be compatible with and demonstrate integration into economic and spatial planning for the area, including economic alignment with spatial planning. These challenges are essential to economic desirability, ensuring that the proposed development aligns with economic planning as outlined in spatial development plans, local economic development strategies, and related area plans.

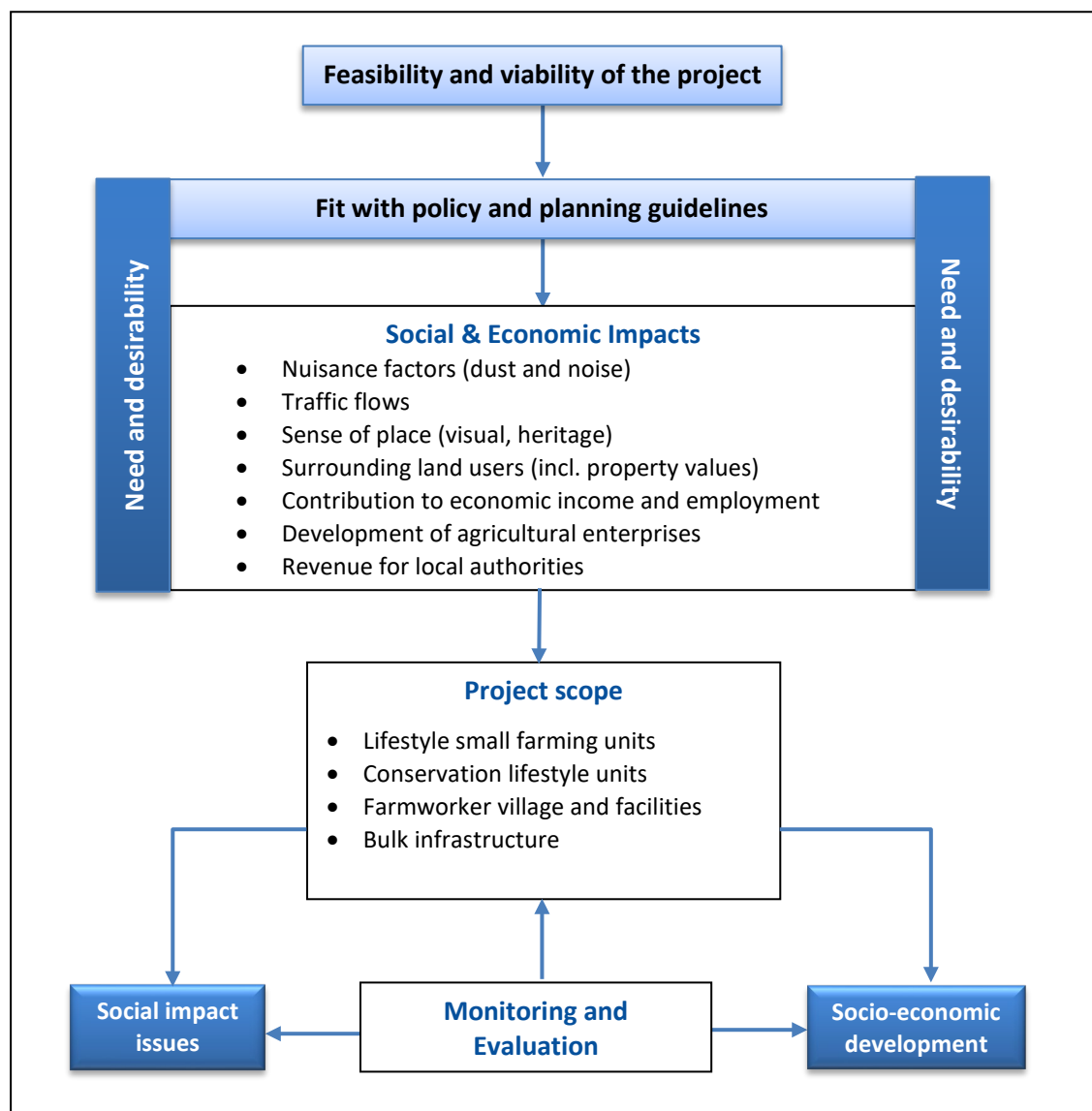


Figure 1: Methodology used for specialist socio-economic input for the EIA process

Source: Multi-Purpose Business Solutions

In accordance with the *Guideline for Involving Economic Assessment Specialists in EIA Processes* (CSIR, 2005) and the *Guideline for Involving Social Assessment Specialists in EIA Processes* (Department of Environmental Affairs and Development Planning, 2007), the project should align with planning frameworks and be desirable from a societal cost-benefit perspective, particularly regarding social impacts. The *Need and Desirability Guidelines* (Republic of South Africa, 2014) also serve to assess the economic and social justification for the proposed development in the specific location. Furthermore, compliance with *Appendix 6 of the NEMA Regulations (Annexure B)* and alignment with existing guidelines are essential.



Given the nature of the proposed activities and the project's importance for direct investment in George Municipality and the protection of agricultural land, monitoring and evaluation are essential throughout the construction of dwellings on the small-scale farming units and conservation units, as well as during operations. Both the envisaged positive and potential negative impacts need to be monitored through an inclusive and credible process, with a broad framework outlined in this report (**Section 9** in Impact Assessment).

1.3.1 Data gathering and analysis

The George Municipality is identified as the study area for the socio-economic impact assessment (see the Socio-Demographic and Economic analysis in **Section 4**). Our approach to addressing comments from stakeholder groups and Interested and Affected Parties (I&APs) is to incorporate the socio-economic inputs from the EAP's environmental process and assess them from a socio-economic perspective. Where applicable and if required, I&APs will be identified for further consultation. We may, at our discretion and if required, engage in further discussions with the identified parties and obtain additional information for inclusion in the report.

Secondary sources (including reports and publications) are consulted to inform the assessment and to complement the primary research. Occasionally, this would include using Artificial Intelligence (AI) to distil large volumes of information and to prompt for guidance on accessing sources and distilling complex matters. Sources are verified and checked to ensure the integrity of the work and, where applicable, its alignment with the inputs used in the context provided in the report.

1.3.2 Impact assessment

The proposed project would have both qualitative and quantitative impacts (benefits and costs) on the area's socio-economic fabric. We consider the core project's quantitative economic impacts, i.e. positive and negative consequences, and analyse the socio-economic impacts. Where applicable, a qualitative assessment of benefits and costs from a social perspective is provided, and the different impacts are assessed using the impact rating methodology outlined in **Annexure A**.

Per NEMA EIA Regulations (2014, as amended), the potential impacts of the following alternatives are assessed and compared:

- **Preferred Alternative:** 57 Agricultural Farms, 24 Nature Conservation Farms, 110 group housing units in the Farming Village, and Private Open Spaces
- **No-Go Alternative:** No development, i.e. the *status quo* is maintained

Estimating the economic impact of a project or development can help understand its potential benefits to the local economy. However, estimating these benefits is more helpful for understanding the likely range of impacts than for producing precise figures. An economic impact assessment traces spending through an economy and measures the cumulative effects of that spending over time. Defining the area of influence is an important first step, as it will have local and regional impacts.

A Socio-Economic Impact Analysis evaluates the direct and indirect contributions of construction expenditure and operational revenues to the economy by applying multipliers. Once the direct investment is determined, the indirect and induced impacts are estimated. A Social Accounting Matrix (SAM) is utilised to assess and estimate the project's indirect and induced impacts on the local or regional economy. A SAM illustrates the flows of all economic transactions within an economy (regional or national) and the total direct contribution to, as well as the indirect impact on, the economy in terms of value added to Gross Geographic Product (GGP).

The multiplier effect describes the relationship between a specific type of economic activity and the total additional activity it generates. An Economic Impact Analysis relies on the multiplier concept, which estimates the additional economic activity generated by an investment of R1. It is called a multiplier because the total impacts are larger than the initial, direct impact of an investment during construction or operations. For example, an aggregate economic multiplier of 2,50 indicates that for every Rand spent on operations, R2,50 is generated. After subtracting



the original R1,00 in operational spending (the direct impact), R1,50 in additional spending on goods and services remains, representing the indirect and induced impact.

1.4 Assumptions

The following key assumptions were applied to employment and economic income during construction and operations:

- The structure and composition of the Western Cape economy will remain unchanged (a requirement for multiplier analyses).
- No significant political or other administrative changes will take place on a national or provincial level.
- A period of 12 years is envisaged for the development, which will be staggered depending on unit sales. A 1-year lag is envisaged for each activity: selling the farm, constructing the farm dwelling, and commencing lifestyle agricultural activity. This means that the time from sale to the commencement of farming activities could take 3 years.
- Only total labour demand is considered, regardless of race, gender or skill level.
- An import leakage¹ of 20% was assumed for construction.
- Employment densities reflecting full-time equivalent jobs during operations are applied to estimate employment from operations

1.5 Limitations

Several limitations were identified during the study; they do not affect the study outcomes and are highlighted to provide context:

- Although the 2022 Census high-level results have been released, many issues cast doubt on their credibility and validity. The large undercount of approximately 30% far exceeds any acceptable norm and has led to considerable criticism of the methodology and other aspects. Data at the Municipal level provides some indication of socio-demographic characteristics, but no granular analysis at the sub-place level, as defined by Statistics SA, is possible.
- In the absence of credible Census data, the socio-demographic profile of the study area is based on information extracted from the *2023-24 Municipal Economic Review & Outlook for the Garden Route District* and the *2026 Review of the George Integrated Development Plan 2022–2027*.
- The economic impact of the construction period is an estimate subject to market demand and various external factors beyond the developer's control, which may result in different actual outcomes.
- Local research to estimate full-time equivalent jobs related to residential development is not available. International research was used to estimate the number of full-time equivalent jobs, which may differ in the South African context.

¹ Leakage refers to capital or income that exits an economy or system rather than remaining within it.

2 PROJECT DESCRIPTION

2.1 Project location, site description and zoning rights

Lagoonbay Lifestyle Estate (Pty) Ltd owned 32 portions of the Farm Hoogekraal No 238, and two portions of the Farm Buffelsdrift No 227, in the Division and Municipality of George. In 2021, the National Department of Agriculture approved the consolidation and subdivision of the 530-ha application area under the Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970), to create 205 farms ranging from 2 ha to 60 ha on 32 portions of the Farm Hoogekraal No 238, and two portions of the Farm Buffelsdrift No 227, in the Division and Municipality of George (Consent No 55912, Department of Agriculture, Land Reform and Rural Development, 2021). The proposed 530-ha Hoogeland rural development is located just outside Glentana, along the Garden Route, and is bordered by the Maalgate River and the Indian Ocean (**Figure 2**).

The property was sold to Attwood Property Developments (Pty) Ltd, which wishes to submit an application to rezone and subdivide the 34 cadastral units for a rural agricultural farmstead development, Hoogeland Coastal Farmsteads, on the same approved footprint. The proposed development includes 57 Agricultural farms and 24 Nature Conservation Farms, as well as a Farming Village to house 110 farmworker families with permanent tenure rights.

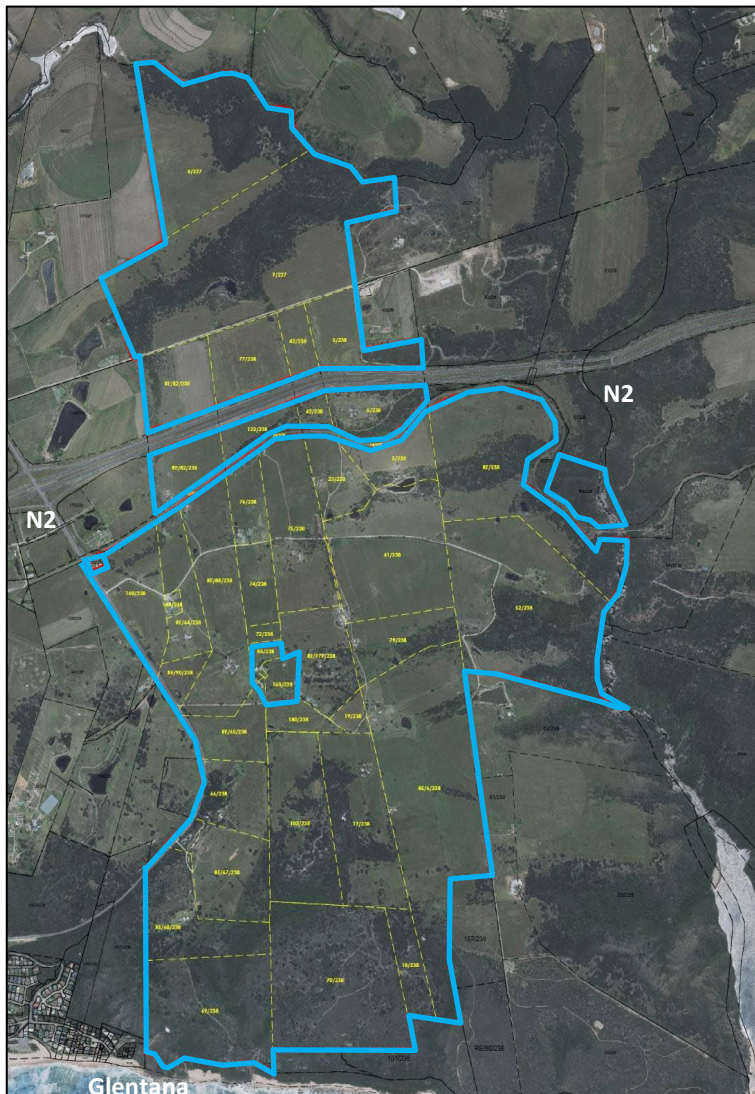


Figure 2: The properties included in the application for the Hoogeland Coastal Farmlands and Farm Village

Source: Marike Vreken, 2026

2.2 Surrounding land users

The application area spans the N2 National Road: the farms north of the N2 are vacant, with no structures, whereas those south of the N2 are used for grazing but have large areas of fallow land. The area contains various buildings, such as agricultural homesteads with outbuildings, the Hoogekraal Primary School, the Hoogekraal Superette, and multiple informal settlements where farmworkers reside. The surrounding area is predominantly rural, with agricultural activities such as cultivated lands and natural grazing areas, as well as dispersed farmsteads. The George Airport is located 6 km northwest, the Glentana residential area is southwest, and the Herolds Bay Nature Reserve is located along the eastern side of the application area (**Figure 3**).

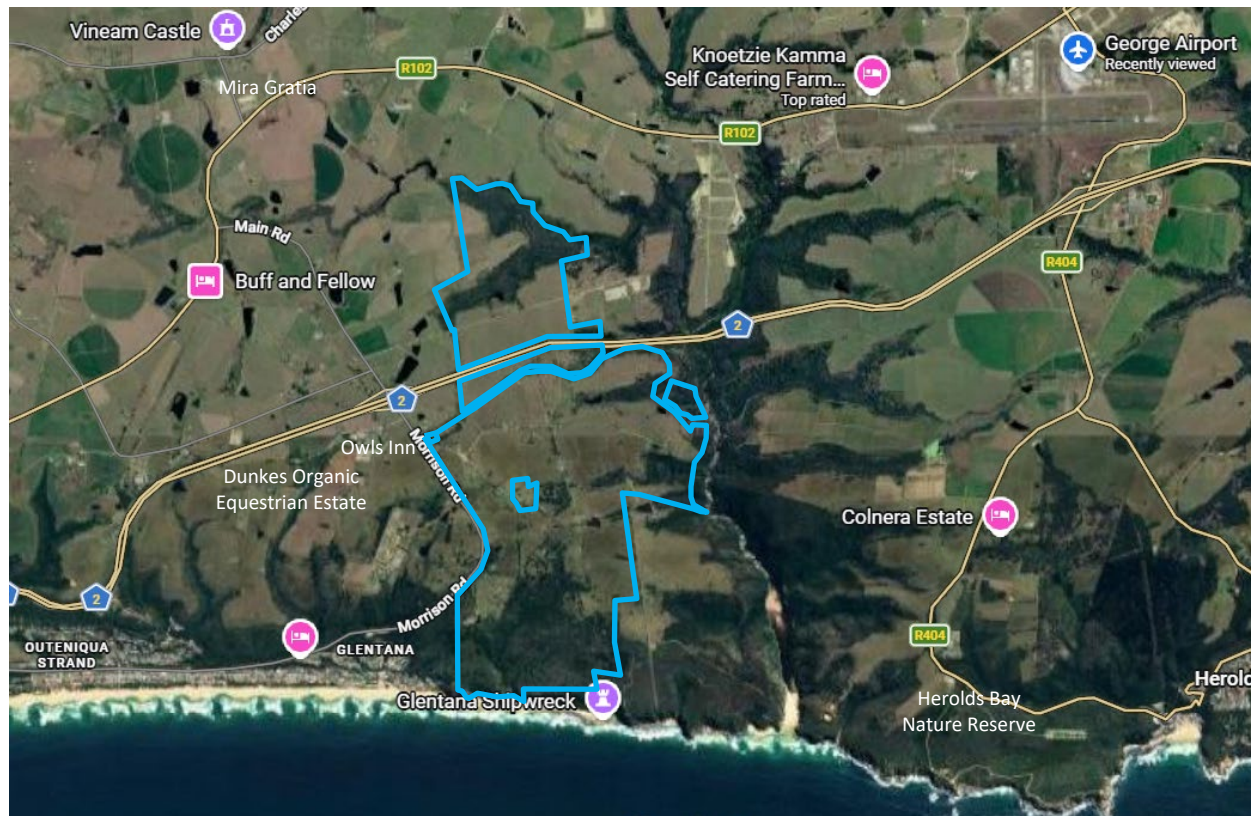


Figure 3: The proposed Hoogeland Coastal Farmheads development site and surrounding land uses.

Some of the prominent land users near the proposed development area include the following:



Glentana is a small seaside town with a total population of 554 in 2011. It offers sandy beaches, warm Indian Ocean water for swimming, sunbathing, and surfing, and a range of outdoor activities (<https://www.capetourism.com/glentana/>)

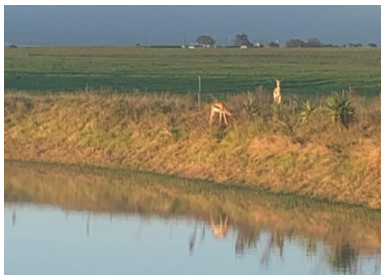
Herolds Bay Nature Reserve, which aims to restore and protect a pristine stretch of coastline, offers access to its trails or lets you enjoy the views and natural beauty of the Cape Floral Kingdom (<https://en.hbnr.org.za/about/>).





Colnera Estate offers four small self-catering chalets set among the trees (<https://www.colnera.co.za/chalets/info/>)

Buff and Fellow - 10 accommodation units, game drives, picnics and several outdoor activities (<https://www.buffandfellow.co.za/>)



Mira Gratia – Tranquil farm stay with luxury, charm, breathtaking views, and accommodation in three rooms and an eco-cabin (<https://miragratia.co.za/e/>)

The Owls Inn Country Villa and Spa - three self-catering units, each featuring a private entrance and secure shared parking area (<http://owlsinnquestlodge.co.za/>)



Knoetzie Kamma Farm - Self-Catering facilities with five rooms and two cottages with access to a shared kitchen and outdoor braai area (<https://www.knoetziekamma.co.za/index.php>)

Dunkes Organic Equestrian Estate – Guest House or Cottage accommodation, with views of the mountains, and access to swimming pool, natural pond, pizza oven, fire pit, and braai facilities (<https://dunkesorganicequestrianestate.co.za/>)



The existing **Hoogekraal Primary School** on Portion 10 of the Farm No 238 will be retained and accommodated on Erf 82.



2.3 Proposed development

Attwood Property Developments (Pty) Ltd acquired the rights to lodge land development applications for a rural Agricultural Farmstead development and a rural Farm Village where settlers with valid ESTA tenure rights can be accommodated. The proposal is to reorganise the farm boundaries to create an agricultural settlement comprising small farms of approximately 5 ha and larger, together with communal equestrian facilities such as a polo field, stables, paddocks, dressage rings, and riding trails. The farms north of the N2 National Road will be reduced from six cadastral units to five, and the proposed agricultural farms south of the N2 National Road will comprise 81 small farms that will be part of a Homeowners Association.

The following land uses are proposed south of the N2 (**Figure 4**):

- **57 Agricultural Farms** that permit agricultural activities on these properties, such as orchards, vegetable gardens, and grazing paddocks.
- **24 Farms zoned for Nature Conservation:** Farms where more than 50% of the area has been identified as environmentally sensitive will be zoned as “Open Space Zone III” (Nature Conservation Area), with a demarcated footprint of 2 000 m² for the construction of a dwelling and associated infrastructure. The remaining area will be preserved as a natural landscape, with trails or low-impact amenities designed to minimise ecological disturbance.
- **Private Open Spaces** (including communal recreation facilities such as equestrian facilities, stables, arenas, clubhouses, etc.). The Equestrian Facility will be privately owned but available for use by residents and HOA members. The proposed Private Open Spaces also include trail networks that connect properties. Equestrian paths will be designed to minimise soil compaction, erosion, and runoff. Existing graveyards are located within private open spaces (Erven 85 & 92), and other open spaces contain dams that will be utilised for irrigation.
- **Hoogeland Farming Village (Group Housing):** The proposed residential village will consist of 110 residential units (17 units/ha) available only to beneficiaries with established tenure rights in the application area. The property is located between the N2 National Road and the railway line. The proposal is to create a sustainable village with recreational facilities, communal food gardens and a community hall. Beneficiaries will receive a constructed house, with ownership via sectional title. The Farming Village will be developed first, and beneficiaries will be relocated there before the Hoogeland Coastal Farmsteads are developed and occupied. The developer will approach the Department of Land Reform for assistance with subsidies to construct these homes.

The Services Reports (EDS, 2025; 2026a) indicated the following bulk service requirements for the proposed development:

Water

- The existing farms collectively have an annual water allocation of about 1,88 million m³. Water is currently abstracted from the Maalgate River using facilities that comply with the existing lawful on-site water rights. It is proposed to use these facilities to draw water from the Maalgate River into a central dam. From there, water will be pumped to a central treatment and distribution point situated in the northern part of the site, just south of the existing railway line.
- It is proposed to install a buffer tank at this location, where water will first undergo filtration. After this initial treatment, the water will be purified to meet potable standards and then supplied to the residential village through a proposed pump station.
- Filtered water will be supplied from this location to each farm via a newly constructed pump station. Bulk reticulation to each farm will follow the proposed roads, and erf connections will be provided for each farm. It is proposed that a minimum allocation of 7 kL per day be provided to each farm. A storage tank of at least 10 kL for water storage will be required. Each farm will be responsible for treating the filtered water to potable standards for the water supplied to the house.
- Irrigation water can be supplied directly from each farm’s storage tank to the designated areas.

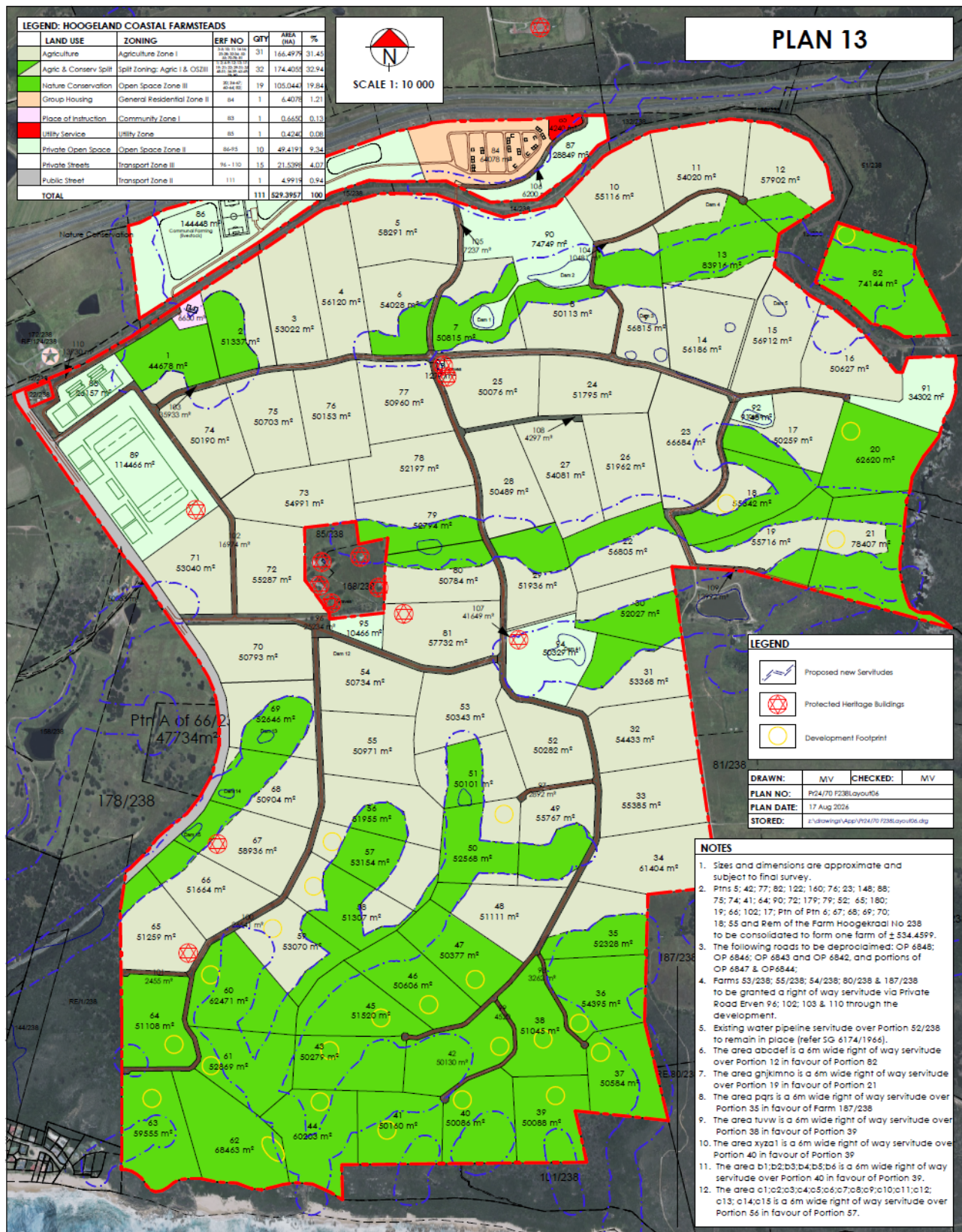


Figure 4: Proposed land uses for the properties south of the N2: Agricultural Farms (light yellow), Nature Conservation Areas (bright green), Group Housing (orange), and Private Open Space (olive green).

Source: Marike Vreken, 2026



Sanitation

- Each 5 ha farm will be responsible for its own sewage treatment on-site, using a septic tank combined with bio-filtration through an artificial wetland for additional treatment.
- It is proposed to construct a sewer treatment package plant to handle sewage from the Residential Village. The treatment will meet General Limits standards, enabling the Treated Sewage Effluent to be reused for irrigation within the development.
- Treated Sewage Effluent will be discharged into a newly constructed reservoir from where it will be distributed for irrigation of general areas under the management of the Home Owner's Association.
- The sewer package plant will be situated east of the proposed Residential Village (the lower-lying area) to facilitate a gravity-fed sewer network that directs sewage to the plant. The Home Owners Association will handle the operation and upkeep of the sewage package plant.
- Regular monitoring of quality will be performed to ensure the Treated Sewage Effluent meets the necessary standards.

Stormwater management

- The proposed development will use the existing internal topography, so catchment boundaries will stay unchanged after development. Low water crossings will be built on the roads to enable stormwater to flow overland to the existing drainage lines.
- While the proposed subdivision and rezoning might cause a minor increase in stormwater runoff—less than 10%—the stormwater system's operation will stay unchanged.
- To alleviate the slight increase, the development footprint of hardened surfaces will be limited to 2000 m² per 5 ha farm. Rainwater harvesting will be implemented at all new dwellings.
- Increased farming activities and irrigation will result in more water being abstracted from the existing on-site dams. There will therefore be additional attenuation capacity in the on-site dams, further decreasing the total runoff from the site.
- Low-water crossings on new roads will be constructed to ensure that the stormwater system continues to operate in a sustainable manner.

Electricity

- Electricity services will be provided directly by Eskom and by renewable energy (i.e. a hybrid supply). No electrical services will be required from George Municipality (Marika Vreken, 2026).

3 OVERVIEW OF THE GEORGE AND GARDEN ROUTE ECONOMIES

3.1 Introduction

The George economy contributed approximately 40,73% to the Garden Route District's economy in 2024. In terms of absolute numbers, the George economy generated R65 767 million in GVA at current prices², relative to R161 462 million recorded for the Garden Route. The George economy grew off a solid base at 8,14% per annum from 2005 to 2024, while its contribution to the Garden Route GVA increased from 36,96% in 2005 to 40,73% in 2024.

Figure 5 indicates the sector contributions to the GVA of the George economy for 2005 and 2024. The largest sector of the George economy in 2005 was Manufacturing, followed by Finance, insurance, real estate, and business services, and Wholesale and retail. In 2024, Finance, insurance, real estate, and business services, and Manufacturing contributed almost 64,17% of the total GVA generated by the George economy, an increase of 2,72% from 2005. The Manufacturing sector has remained one of the largest contributors to the George GVA over the 19-year analysis period. The sector's contribution has remained constant at around 25% over the period 2005 to 2024, while the contribution of Finance, insurance, real estate and business services to GVA increased from 23,46% in 2005 to 26,35% in 2024.

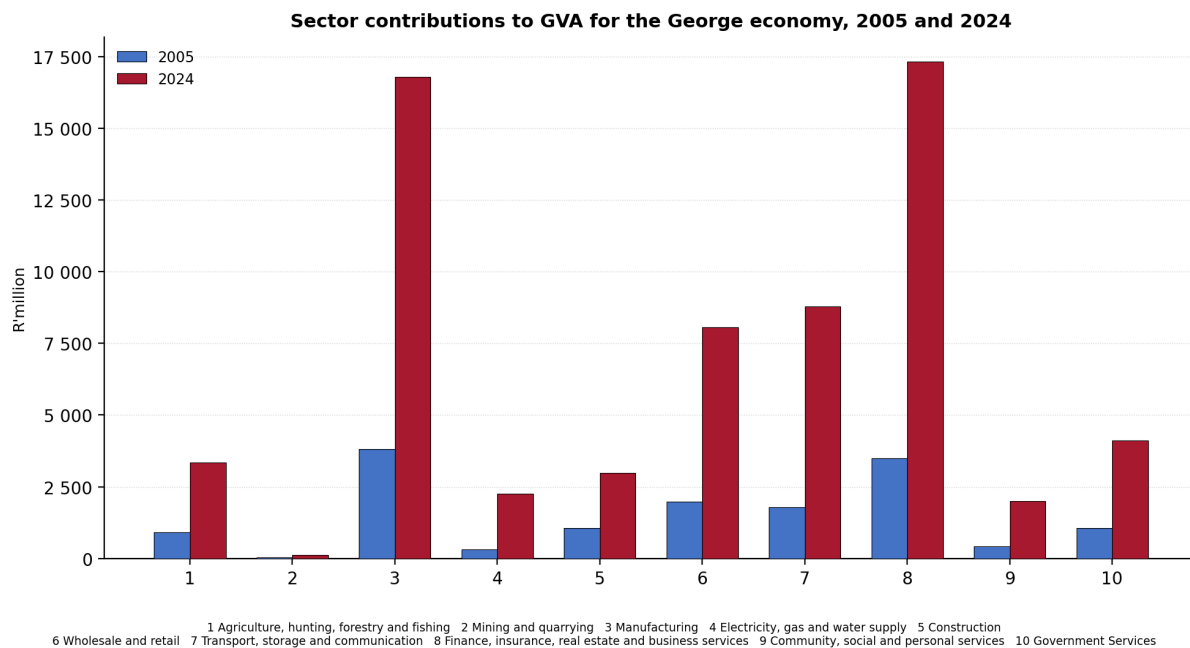


Figure 5: An illustration of the GVA contributions per sector for the George economy in 2005 and 2024

Legend:

- | | |
|--|---|
| 1 Agriculture, hunting, forestry and fishing | 6 Wholesale and retail |
| 2 Mining and quarrying | 7 Transport, storage and communication |
| 3 Manufacturing | 8 Finance, insurance, real estate and business services |
| 4 Electricity, gas and water supply | 9 Community, social and personal services |
| 5 Construction | 10 Government Services |

Source: Adapted from data provided by Quantec Research, 2025

To understand whether sectors of George are contracting or growing, it is useful to consider the overall and annual growth rates and compare them to those of the Garden Route. **Figure 6** indicates the annual compounded growth rates per economic sector for George and the Garden Route from 2005 to 2024. The Garden Route and George

² GVA and Gross Geographic Product (GGP) or Gross Regional Product (GRP) are very similarly related concepts. GVA excludes taxation and subsidies, whereas GDP includes the items. GVA is analysed using current prices



economies grew in nominal terms by 7,59% and 8,14% per annum, respectively, from 2005 to 2024 (refer to the Total data in **Figure 6**). Nine sectors of the George economy achieved higher annual growth rates than the Garden Route District did from 2005 to 2024. High annual growth rates were achieved by the Garden Route District in the Electricity, gas, and water supply, and Government sectors, but are calculated on a very low base and should be considered with caution.

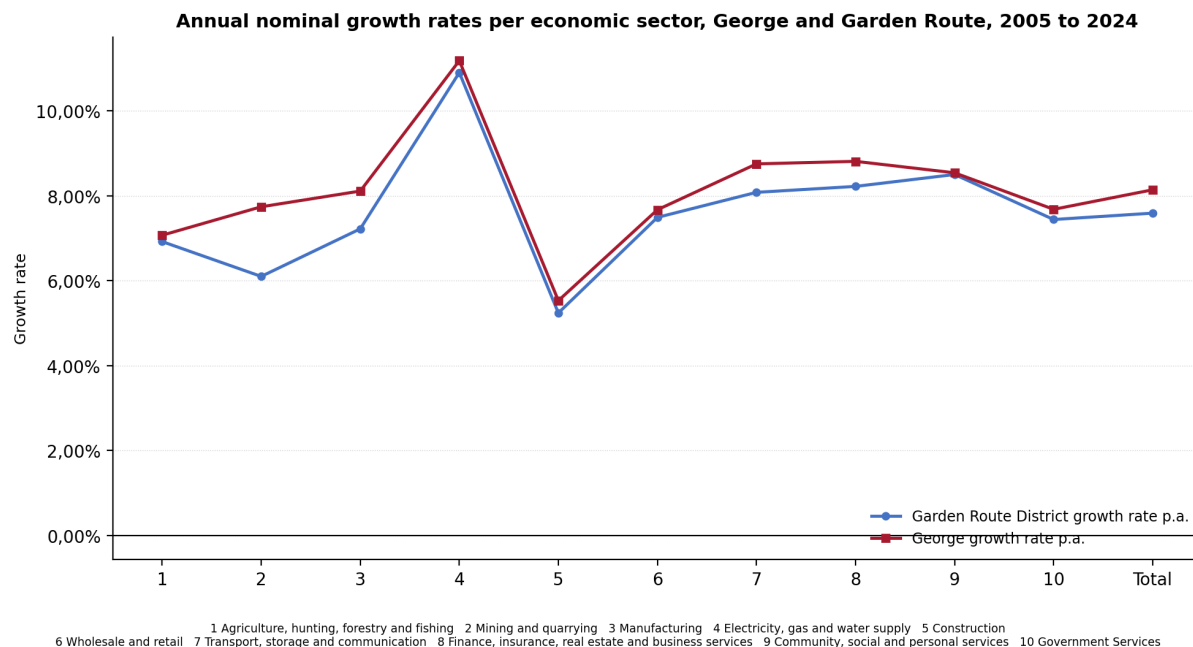


Figure 6: An illustration of the annual nominal growth rates per economic sector for George and the Garden Route from 2005 to 2024

Legend:

- | | |
|--|---|
| 1 Agriculture, hunting, forestry and fishing | 6 Wholesale and retail |
| 2 Mining and quarrying | 7 Transport, storage and communication |
| 3 Manufacturing | 8 Finance, insurance, real estate and business services |
| 4 Electricity, gas and water supply | 9 Community, social and personal services |
| 5 Construction | 10 Government Services |

Source: Adapted from data provided by Quantec Research, 2025 and own calculations

3.2 Sector analysis of GVA contributions

Figure 7 shows the contribution of each economic sector to the GVA of the George and Garden Route economies for 2005 and 2024. An assessment of the larger sectors suggests that the contribution of Manufacturing has remained constant from 2005 to 2024; Finance, insurance, real estate, and business services have increased; while the contributions of Wholesale and Retail and Construction have decreased. The Manufacturing sector showed a decline in its contribution to GVA, i.e., from 25,68% (2005) to 25,55% (2024). The GVA contribution of agriculture also declined slightly, although the contribution to the overall economy is small. A similar trend is experienced in the Garden Route District.

Four sectors increased their GVA contribution to the George economy from 2005 to 2024, while Construction and Wholesale and Retail declined. The trend emerging across the District is similar, with five sectors increasing their GVA contribution to the District economy and five declining. The concern could be a declining trend in employment levels in the more labour-intensive sectors of the economy, such as Manufacturing. A greater focus on service-oriented sectors has emerged, which are invariably lower employment creators than Construction and Wholesale and retail.

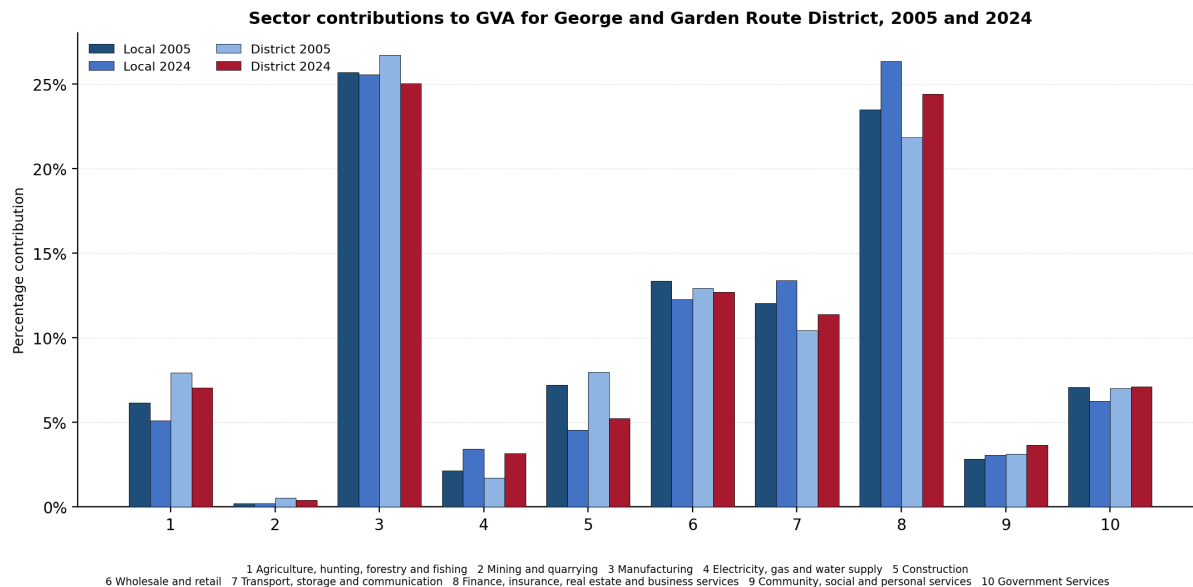


Figure 7: Sector contributions to GVA for George and Garden Route District in 2005 and 2024

Legend:

- | | |
|--|---|
| 1 Agriculture, hunting, forestry and fishing | 6 Wholesale and retail |
| 2 Mining and quarrying | 7 Transport, storage and communication |
| 3 Manufacturing | 8 Finance, insurance, real estate and business services |
| 4 Electricity, gas and water supply | 9 Community, social and personal services |
| 5 Construction | 10 Government Services |

Source: Adapted from data provided by Quantec Research, 2025 and own calculations

The assessment of GVA sector contributions and the annual and period growth rates for 2005 and 2024 are indicated in **Table 1**. All 10 sectors showed a yearly increase in economic activity from 2005 to 2024. The analysis demonstrates that the Construction sector is declining in favour of Finance, insurance, real estate, and business services, and Transport, storage and communication, suggesting a greater focus on a service-oriented approach.

Table 1: Sector contributions to GVA in 2005 and 2024 and annual growth rates for the George economy

Economic sector (R'million)	Gross Value Added				Growth for Period	Annual growth	Direction of growth
	2005	% of total	2024	% of total			
Agriculture, hunting, forestry and fishing	911	6,13%	3 337	5,07%	266,22%	7,07%	↑
Mining and Quarrying	28	0,19%	116	0,18%	312,07%	7,74%	↑
Manufacturing	3 816	25,68%	16 802	25,55%	340,30%	8,11%	↑
Electricity, gas and water supply	315	2,12%	2 249	3,42%	614,41%	10,90%	↑
Construction	1 069	7,20%	2 975	4,52%	178,24%	5,53%	↑
Wholesale and retail	1 982	13,33%	8 071	12,27%	307,33%	7,67%	↑
Transport, storage and communication	1 785	12,01%	8 791	13,37%	392,62%	8,75%	↑
Finance, insurance, real estate and business services	3 487	23,46%	17 331	26,35%	397,08%	8,81%	↑
General government	419	2,82%	1 990	3,03%	374,77%	8,54%	↑
Community, social and personal services	1 049	7,06%	4 104	6,24%	291,21%	7,44%	↑
Total	14 860	100,00%	65 767	100,00%	342,56%	8,14%	↑

Source: Adapted from data provided by Quantec Research, 2025 and own calculations

Primary sector

The primary sector of the George economy includes Agriculture, hunting, forestry, and fishing activities, as well as Mining and quarrying. The primary sector contributed 5,25% to the George economy's GVA in 2024, marginally lower than the 6,32% recorded in 2005. Agriculture is the largest contributor to the GVA of the Primary sector, accounting for 97,00% in 2005, declining slightly to 96,64% in 2024.



Secondary sector

The secondary sector of the George economy includes Manufacturing, Construction and Electricity, gas and water supply. The secondary sector contributed 33,49% to the George economy's GVA in 2005, but its contribution increased slightly to 34,99% in 2024. The Manufacturing sector's contribution to the secondary sector GVA increased from 73,38% in 2005 to 76,28% in 2024.

Tertiary sector

The tertiary sector of the George economy comprises Trade, repairs, and hospitality; Financial institutions, real estate, and business services; Community, social, and personal services; and Government services. The tertiary sector contributed 58,68% to the GVA of the George economy in 2005, rising to 61,26% in 2024. The analysis suggests that the contribution of Government Services to the GVA of the tertiary sector remained more or less the same at 3,03% in 2024, compared with 2,82% in 2005.

3.3 General employment trends

A comparison of total employment indicates that George accounted for 36,23% of the Garden Route District's total employment in 2024. The primary, secondary and tertiary sectors contributed 9,95%, 15,82% and 74,23% to total employment in the local economy, respectively. In comparison, the Garden Route recorded total employment contributions of 12,49%, 15,68%, and 71,83% from the primary, secondary, and tertiary sectors, respectively.

Overall employment increased by 68,15% in the George economy from 2001 to 2024. The strong growth in the tertiary sector was offset by low employment growth in the secondary sector and negative growth in the primary sector in George's economy. Strong employment growth was recorded in the tertiary sector, with an increase of 68,15% from 2001 to 2024, or an annual compounded growth rate of 2,28%. The Garden Route experienced similar trends, with a 36,78% decline in primary sector employment and increases of 19,13% and 61,29% in the secondary and tertiary sectors, respectively. The tertiary sector of the George economy grew during the pre-2008 and post-2011 periods, while the primary and secondary sectors shed 24,52% and 7,34%, respectively, from 2008 to 2011 (**Figure 8**). Following 2011, the primary sector began to recover some of the employment lost in the previous period, resulting in a 7,78% increase in employment from 2012 to 2024. However, the labour-intensive secondary sector clawed back the jobs from 2012 to 2024, following the loss from 2008 to 2011.

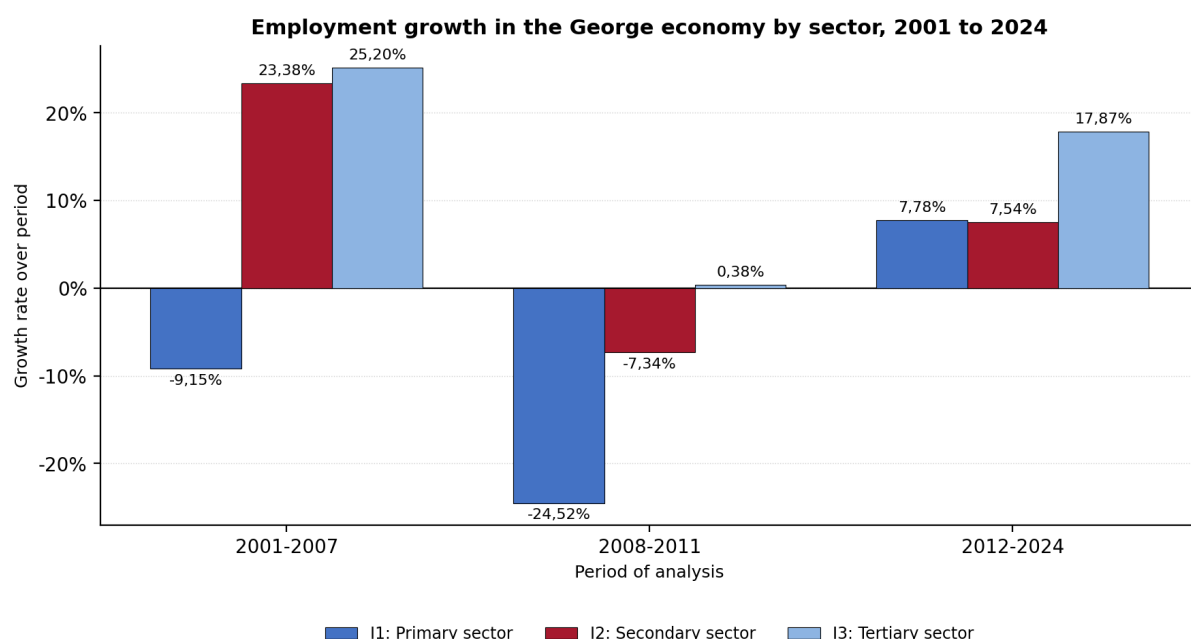




Figure 8: An illustration of the employment growth in the George economy for three specified periods (pre-recession, recession and post-recession) from 2001 to 2024

Source: Quantec, 2025 and own calculations

3.4 Conclusions

The proposed reconfiguration of farms for the Hoogeland Coastal Farmlands project will benefit the economies of George and the Garden Route. All economic activities associated with development during construction would impact the primary, secondary, and tertiary sectors of the economy, requiring raw materials (e.g., sand mining), construction materials (e.g., bricks, cement), and business services (e.g., professional services). In addition, household spending by residents will induce spending on salaries and wages, benefiting all three economic sectors. Operational agricultural activities and those on conservation parcels will support growth and employment across all three economic sectors, whereas residential-only development supports only the construction phase, after which project-related jobs and income dissipate.



4 SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE OF THE POPULATION

4.1 Defining the study area and available statistics

The study area is the George Municipal Area, which accounts for 22,2% of the Garden Route District (GRD) Municipal area and is considered the GRD's commercial hub. Once reliant on traditional fishing and agriculture, the George municipal area's economy has since expanded to include industries such as boutique tourism and artisanal crafts.

One of the main limitations of the 2022 National Population Census is its estimated 30% undercount, which raises concerns about the data's reliability and suitability for socio-demographic and economic analysis. Additionally, the 2022 Census was not conducted at the same level of detail as the 2001 and 2011 Censuses, resulting in limited socio-demographic data for towns and sub-places within local municipalities. As a result, other data sources were consulted to understand the socio-economic and demographic profile of residents near the development site. The following sections focus on the Garden Route District (GRD) and George Municipality, with key statistics drawn from the *2024-25 Municipal Economic Review and Outlook for the Garden Route* (Garden Route District Municipality, 2024) and the *2026 Review of the George Municipality IDP* (George Municipality, 2026).

4.2 Socio-demographic profile

4.2.1 Population

The GRD covers 18% of the Western Cape Province's area, housing 667 636 residents in 2023, with an estimated 1% annual growth from 2024. It includes the Municipalities of Kannaland, Oudtshoorn, George, Bitou, Knysna, Mossel Bay, and Hessequa. In 2023, George had the largest population share in the GRD, with 240 415 residents in 2024, accounting for 35,6% of the District population. It is expected to grow at an average rate of 1,4% from 2024 to 2028, the second highest in the District, due to its development as an urban hub (**Figure 9**). In 2023, the George population was 49,7% Coloured, 34,5% Black African, 15,4% White, and 0,5% Indian or Asian. George has experienced consistent growth, with population expansion matching an expected household growth rate of 2,1% from 2023 to 2027 (Garden Route District Municipality, 2024).

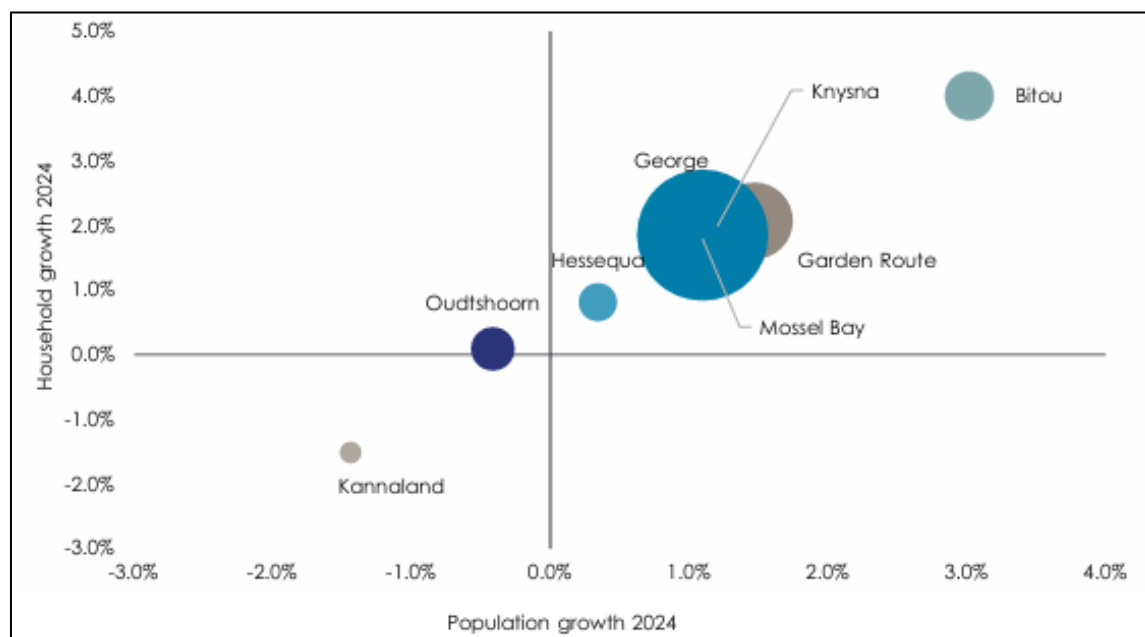


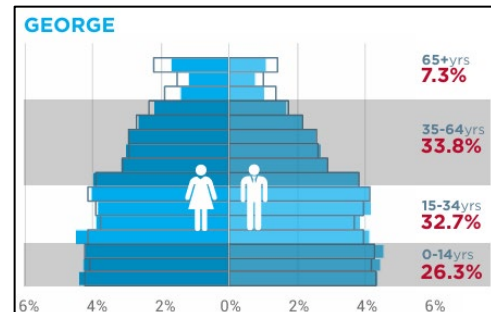
Figure 9: Population and Household Growth in Garden Route District, 2023-2024

Source: Garden Route District Municipality, 2024



The George IDP (George Municipality, 2026) reports a total population of 140 415 in 2024 and 65 954 households in 2025. While the urban population has grown, some developments around George extend into rural areas, potentially leading to an overestimation of the rural population. The town of George itself houses a significant urban population (57,9% of residents), whereas Thembaletu's share of the GM population increased from 21,4% in 2001 to 23,3% in 2021.

The George municipal area had the largest population within the District in 2022, accounting for 35,2% of the GRD population. George has also consistently experienced population growth, with an expected average household growth rate of 2,0% from 2023 to 2027. This has made George the second-fastest-growing municipal area in the GRD. In 2022, approximately 33,8% of its residents were aged 35 to 64, followed by 32,7% aged 15 to 34. Meanwhile, 26,3% of the population was under 14, resulting in a relatively high dependency ratio. In 2023, the Matric pass rate was 85,9%, with a learner retention rate of 73,8% and a learner-to-teacher ratio of 28,9 (George Municipality, 2026).



4.2.2 Employment

In 2023, the per capita GDPR for the GRD was R54 487, showing a noticeable contraction relative to 2021 (**Figure 10**). This can be explained by prevailing disparities: a segment of the population enjoys affluence, while others grapple with financial challenges in an economic landscape characterised by inflation, rising interest rates, and unemployment. George maintained its economic lead in the district with a GDPR per capita of R61 616, a slight decrease of 1,2% from 2022. However, this is far below the Western Cape's average of R80 488. George, with the highest median income of R8 228, benefits from its status as a major urban centre with well-developed infrastructure, including an airport and various educational institutions (Garden Route District Municipality, 2024).

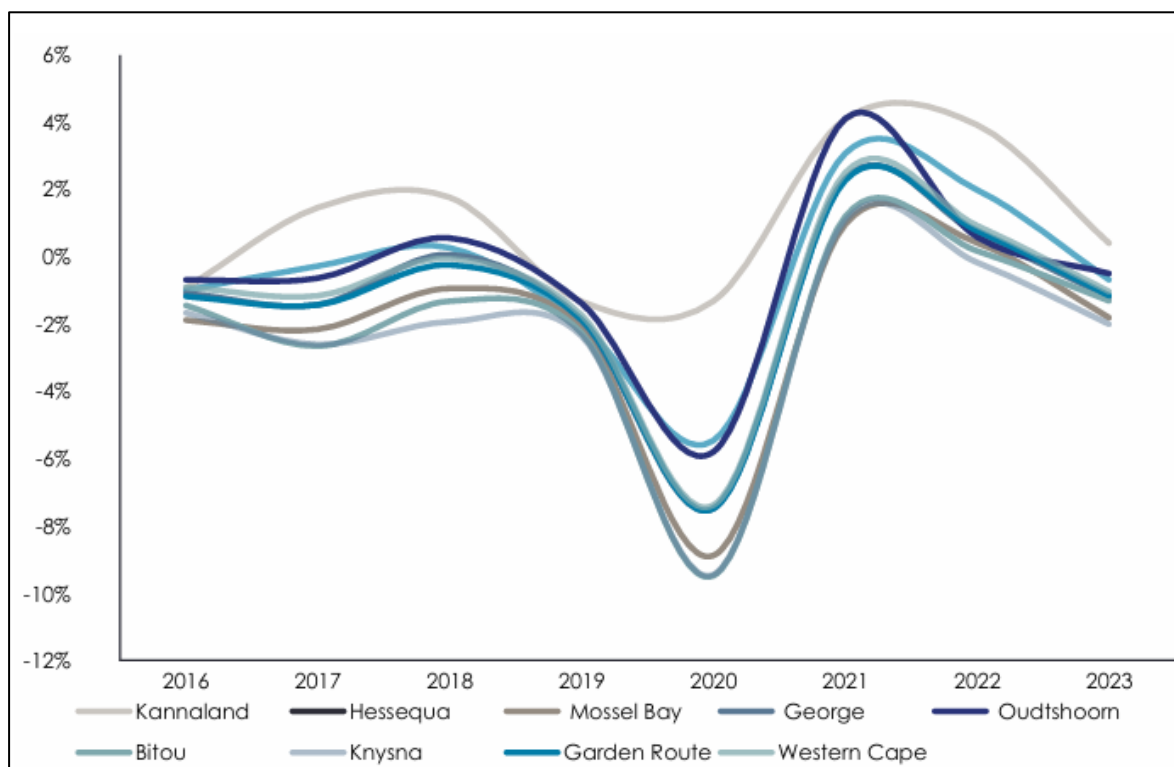


Figure 10: GDP per capita growth, Garden Route District, 2016 – 2023

Source: Garden Route District Municipality, 2024

The changes in the Employment Profile for George Municipality from 2023 to 2024 are illustrated in **Figure 11** (George Municipality, 2026). In 2022, George Municipality experienced an estimated 3,3% growth, resulting in 4 650 new jobs, mainly in the informal sector, while the formal sector lost 661 jobs. Despite these job losses, the unemployment rate dropped to 18,4%, with 32,6% of the working-age population not economically active.

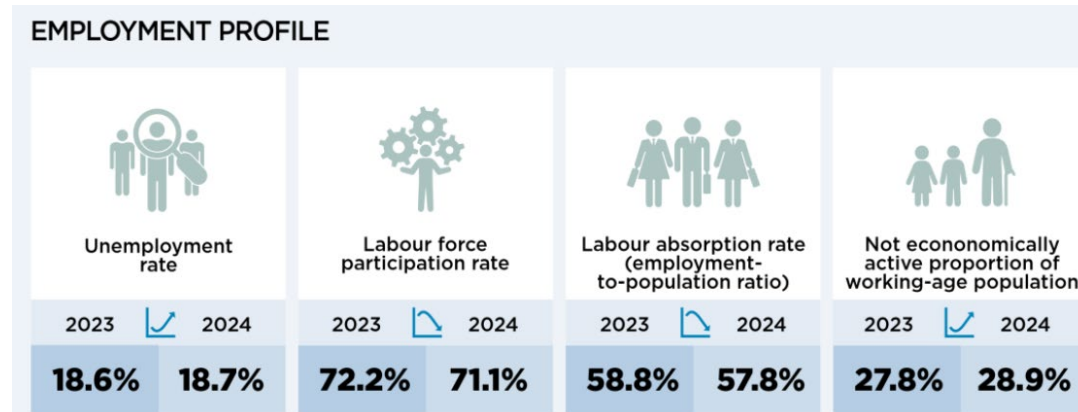


Figure 11: Employment Profile, George Municipality, 2023 – 2024

Source: George Municipality, 2026

4.2.3 Human Development

The Human Development Index (HDI) evaluates three main aspects of human progress: life expectancy, education, and living standards. The HDI offers a broad perspective on a region's socio-economic development, since economic performance significantly influences residents' quality of life. When economies grow, human development tends to improve, resulting in a higher quality of life for individuals. Economic prosperity and expansion can drive advances in education, healthcare, and access to resources, ultimately boosting the overall well-being of the population (Garden Route District Municipality, 2024). The GRD's HDI has begun to recover from post-pandemic levels, driven by improvements in income, educational attainment, and health. In 2023, the GRD recorded an HDI of 0,712, compared to 0,705 in 2022 (**Figure 12**). However, HDI levels vary widely within the District. In 2023, the Mossel Bay municipal area recorded the highest HDI, closely followed by Hessequa and Knysna, with the latter supported by relatively higher incomes and improved access to education. George Municipality scored an HDI of 0,722, displaying some post-COVID-19 recovery.

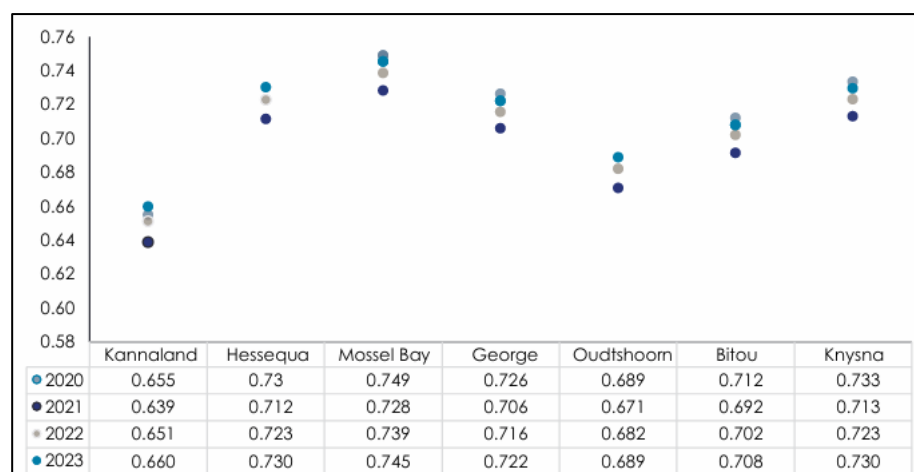


Figure 12: HDI per Municipal area, Garden Route District, 2020-2023

Source: Garden Route District Municipality, 2024

4.2.4 Housing demand

Housing demand in the GRD is quite low compared to other districts and the Metro, accounting for 10,8% of applications. Notably, the GRD recorded a modest 3,3% year-on-year increase in property demand, compared with other districts in the Province. This burgeoning demand in the region reflects the broader implications of urbanisation and the pressing need for effective housing solutions. As the number of households grows, there is an urgent need for housing solutions, either through government-supported programmes or private affordable housing developments. Within the GRD, two Municipalities have sustained the largest share of housing demand over the last three years: George (27,3%) and Oudtshoorn (16,8%). The consistent demand for housing in these areas is largely attributed to population growth, educational growth, opportunities, and semigration (Garden Route District Municipality, 2024).

4.2.5 Access to basic services

Municipalities are responsible for providing a range of basic services to ensure the well-being and quality of life of their residents. These services typically include: access to clean, safe drinking water for all residents; adequate sanitation services, including sewage systems and waste management; reliable, affordable electricity; and disposal of household and commercial waste. Between 2015 and 2023, access to piped or tap water in the George Municipality increased to 94,2% (**Figure 13**). The share of residents with access to electricity increased to 95,4%, while those with sanitation and solid waste removal services grew to 90,1% and 90,3%, respectively. However, it is important to recognise that settlement patterns, with many households living on farms, pose challenges for infrastructure expansion, in particular for solid waste removal services.

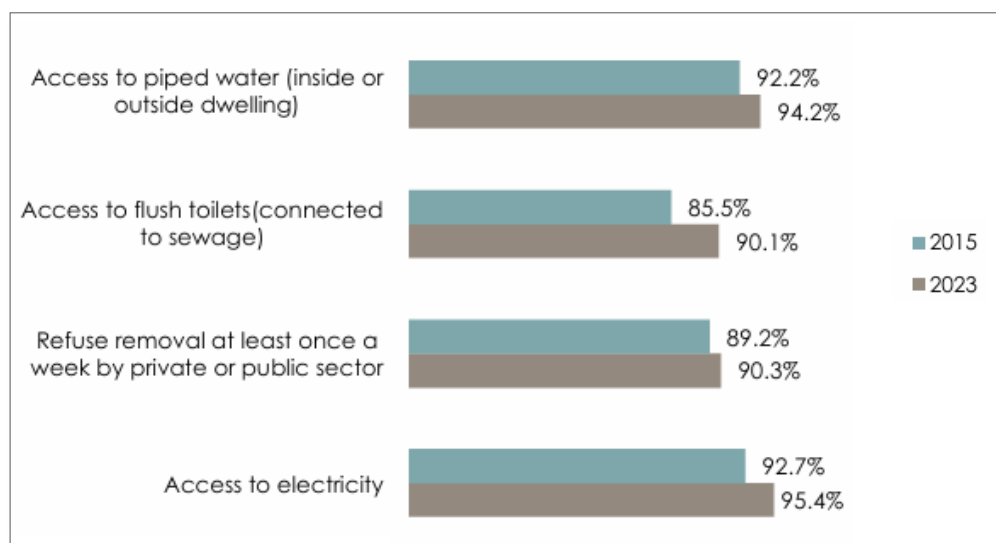


Figure 13: Access to basic services in George Municipality, 2015 –2023

Source: Garden Route District Municipality, 2024

4.3 Conclusions

In 2023, the George Municipal area had the largest population in the District, representing 35,6% of the GRD's total. Over the past few years, the George population has steadily grown, with the average number of households anticipated to increase by 2,1%, making it the second-fastest-growing area in the District. In 2022, George Municipality experienced an estimated 3,3% growth in employment, resulting in 4 650 new jobs, mainly in the informal sector, while the formal sector lost 661 jobs. Despite these job losses, the unemployment rate dropped to 18,4%, with 32,6% of the working-age population not economically active. More than 90% of its residents have access to all basic services, but George Municipality recorded an HDI of only 0,722. However, it has shown some recovery from post-pandemic levels, driven by improvements in income, educational attainment, and health.



5 FEASIBILITY OF THE PROJECT AND FIT WITH SPATIAL PLANNING

5.1 Project viability and financial sustainability

The viability and sustainability of a development project rely on various factors, including property market trends, environmental concerns, economic feasibility, social impacts, and compliance with local and national regulations. A financial feasibility study underpins the Developer's approach once there is a clearer understanding of the various processes and development options. Nevertheless, any development will be demand-driven. The properties are likely to be released in stages to maximise market visibility and to accommodate market conditions and demand at the time. Although the development proposal did not include a financial feasibility analysis, appropriate phasing will help manage and reduce the developer's financial risk. It is unclear how long it will take to sell out, but the development of these components is expected to span over 12 years. A 1-year lag is envisaged for each activity: selling the farm, constructing the farm dwelling, and commencing lifestyle agricultural activity. This means that the time from sale to the commencement of farming activities could take 3 years.

5.2 Need and desirability

The Department of Environmental Affairs (2014) issued a *Guideline on Need and Desirability*, accompanied by a list of questions to address when considering a proposed development. While job creation and economic growth are important, the specific needs of the wider community should be considered alongside opportunity costs and distributional effects to determine whether the development will be socially, economically, and environmentally sustainable. The concept of “need and desirability” relates to, among other things, the nature, scale, and location of the proposed development, as well as the wise use of land. Essentially, “need” refers to time, and “desirability” to place (i.e., is this the right time and the right location for the proposed land use/activity?). The “need and desirability” considers the development proposal's strategic context, broader societal needs, and public interest. While the financial viability considerations of the private developer might indicate if a development is “do-able”, the “need and desirability” takes into account the broader community's needs and interests as reflected in an Integrated Development Plan (IDP), Spatial Development Framework (SDF), and Environmental Management Framework (EMF) for the area. **Table 2** highlights the need and desirability of the proposed development, supporting its progression at the proposed time and location from a socio-economic perspective, in line with the DEADP Guidelines (2014).

Table 2: Need and desirability of the proposed development

Aspect	Comment
Need	
Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority?	It is the considered opinion that, since the proposed development involves the establishment of small-scale farming units and the securing of residential rights for farm workers and beneficiaries with established tenure rights on the farm/application area, the proposal is regarded as consistent with the WCPSDF (p.79)
Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?	The SDFs generally aim to contain urban development within a defined urban edge to prevent fragmentation of the rural landscape and protect high-potential agricultural land. In this unique case, the proposal is not for a typical low-density residential estate (which is often discouraged outside the urban edge), but for a development with a significant agricultural component (p. 101)
Does the community/area need the activity and the associated land use concerned? (Is it a societal priority).	Yes, the farmworker community across the Hoogekraal Farm 238 live in sub-optimal circumstances. This is an opportunity for them to be relocated to a farming village on the farm, where they will own their houses.



Aspect	Comment
Are the necessary services with appropriate capacity currently available, or must additional capacity be created to cater for the development?	The development will not impact the current capacity of the Municipality, and no provision for additional capacity is required from the Municipality.
Is the development provided for in the infrastructure planning of the municipality, and if not, what will the implications be for the infrastructure planning of the municipality (priority and placement services and opportunity costs)?	The development will not rely on Municipal infrastructure; therefore, there is no need for the Municipality to service the development. Electricity will be obtained directly from Eskom, and water will be obtained by extracting it from the Maalegat River.
Is this project part of a national programme to address an issue of national concern or importance?	Yes, in the sense that it attempts to make existing agricultural land more viable as a farming unit and add further socio-economic value to the local economy
Desirability	
Is the development the best practicable environmental option (BPEO) for this land/site?	Yes, the existing agriculture is retained, although in another form, to make it more viable, subscribing to the protection of agricultural land
Would the approval of this application compromise the integrity of the existing approved municipal IDP and SDF as agreed to by the relevant authorities?	No
Would the approval of this application compromise the integrity of the existing environmental management priorities for the area, and if so, can it be justified in terms of sustainability considerations?	No, it will support the maintenance of conservation in areas where no agricultural activity is possible and therefore support sustainability considerations
Do location factors favour this land use (associated with the activity applied for) at this place? (Relates to the contextualization of the proposed land use on this site within its broader context)	Yes, agriculture is retained in a reconfigured form and within the broader agricultural area surrounding the site
How will the activity or the land use associated with the activity have an impact on sensitive natural and cultural areas?	The impact will be positive insofar as areas that are not suitable for any form of agriculture
How will the development impact on people's health and wellbeing (e.g., noise, odours, visual character, and sense of place, etc.)?	The nature of the proposal would not impact people's health; it will support the rural character, and as the proposal supports agriculture in an area that is agricultural, it will likely enhance the sense of place
Will the proposed activity or the land use associated with the activity applied for result in unacceptable opportunity costs?	No, the proposed activity is commensurate with the existing land use and therefore would not result in an opportunity cost
Will the proposed land use result in unacceptable cumulative impacts?	No, the land use remains agriculture

5.3 Compatibility Spatial Planning

Individual project benefits are often overstated if they diminish benefits elsewhere in the area. Therefore, economic viability is essential for assessing whether a proposed development aligns with broader economic planning outlined in spatial development plans. It's not sufficient for a project to yield positive outcomes if it conflicts with planning objectives that aim to maximise the area's overall economic potential. SDFs are key components of economic development planning, guiding overall development toward what local and provincial authorities deem desirable. However, the main role of an SDF is to illustrate the spatial effects of IDPs. For context, provincial, regional, and local SDFs - along with related frameworks, reports, and discussion documents - and Local Economic Development (LED) plans and strategies, along with other guidance documents, form the foundation for this part of the assessment.



5.3.1 National Development Plan 2030

The National Development Plan (NDP, National Planning Commission, 2012) sets out six interlinked priorities:

- Uniting all South Africans around a common programme to achieve prosperity and equity;
- Promoting active citizenry to strengthen development, democracy and accountability;
- Bringing about faster economic growth, higher investment and greater labour absorption;
- Focusing on key capabilities of people and the state;
- Building a capable and developmental state; and
- Encouraging strong leadership throughout society to work together to solve problems.

Achieving the goals of the National Development Plan hinges on advancing multiple areas, with a primary focus on boosting employment via accelerated economic growth. For sustained employment growth, the economy must expand quickly, and structural obstacles - such as poor education and spatial settlement issues that marginalise much of the population - must be addressed. These actions are essential for increasing investment and competitiveness, as well as boosting production and exports. Success depends on joint efforts from businesses, workers, communities, and governments to promote faster economic growth.

The NDP focuses on enhancing human capital, productive capacity, and infrastructure to boost exports and attract investment, aiming to reduce reliance on capital inflows. Increased investment, coupled with improved public infrastructure and skills, will drive faster economic growth and higher productivity. This will result in more jobs, higher incomes, better living standards, and reduced inequality. Prioritising increased investment is essential for sustained economic progress. Furthermore, a strong, competitive infrastructure is vital for supporting growth and employment through various economic activities.

The NDP identified nine key challenges facing the country and proposed approaches to address them. The NDP's primary goals are to eliminate income poverty and reduce inequality by 2030. Regarding Urban and Rural Transformation, the NDP's human settlement aims include increasing the number of people living closer to their workplaces, improving the quality of public transport, and creating more jobs near townships. To meet these targets, it supports strong measures to curtail further housing development in marginal areas, promote higher urban densities to support public transport, incentivise economic activity within and near townships, and involve the private sector in the Gap housing market.

In terms of rural development, the NDP's overall vision is for rural communities and farming areas to become economically productive, socially integrated, and better served by 2030. Key points related to farming settlements include:

- **Better rural living conditions:** Rural residents (including those living on farms and in dispersed farm settlements) should have improved housing, access to water, sanitation, electricity, roads and transport, schools and healthcare, and broadband and communications infrastructure.
- **Farm worker housing and tenure security:** The plan recognises that many farm dwellers and workers have insecure tenure and poor living conditions. It calls for clearer land rights, stronger protection for farm dwellers, improved labour conditions, and the upgrading of rural housing and services.
- **Integrated rural economies:** The NDP argues that rural areas should not rely solely on traditional farming. Farmsteads and rural settlements should connect to agro-processing, tourism, local business, mining support industries, renewable energy, and rural enterprise development.
- **Spatial planning and settlement restructuring:** The plan supports better spatial planning by reducing the isolation of rural communities, bringing people closer to economic opportunities, and improving transport connections between farms, towns, and markets. It discourages fragmented or neglected rural settlement patterns that trap people in poverty.
- **Sustainable agriculture and land use:** The NDP promotes the expansion of irrigated agriculture, the protection of productive agricultural land, sustainable water use, climate resilience, and support for small-scale and commercial farmers.



5.3.2 Western Cape Provincial Spatial Development Framework (WCPsDF) 2014

The Western Cape Provincial Spatial Development Framework (2014) highlights the importance of a coherent structure for the province's urban and rural areas, which articulates the spatial expression of the National and Provincial development agendas, among others. Its guiding principles include the following:

- **Spatial justice:** Past spatial and other development imbalances should be redressed by improving land access and use for disadvantaged communities.
- **Sustainability and resilience:** Land development should be spatially compact, resource-efficient, and compatible with cultural and scenic landscapes, avoiding the conversion of high-potential agricultural land and the degradation of ecosystems. Resilience is the capacity to withstand shocks and disturbances, such as climate change or economic crises, and to use such events to catalyse renewal, novelty and innovation. The focus should be on creating complex, diverse and resilient spatial systems that are sustainable in all contexts.
- **Spatial efficiency:** Efficiency relates to the form of settlements and the use of resources - compaction as opposed to sprawl; mixed-use rather than mono-functional land uses; residential areas close to work opportunities as opposed to dormitory settlements; and prioritisation of public transport over private car use. When a settlement is compact, higher densities provide thresholds that support viable public transport, reduce overall energy use, and lower user costs due to shorter travel distances.
- **Accessibility:** Improving access to services, facilities, employment, training, and recreation, including enhancing the choice of safe and efficient transportation modes (e.g., public transport, private vehicle, bicycle, walking, and wheelchair), is essential to achieving settlement transitions.
- **Quality and liveability:** The quality of an environment directly contributes to its liveability. A good environment is legible, diverse, and unique. Diverse environments provide a variety of opportunities, experiences, and choices. Liveable settlements balance individual and community, logic and feeling, order and random incident. The quality of space can define a place's liveability. Spaces need to be safe and attractive.

In terms hereof, the logical underpinning of the spatial strategy of the WCPsDF covers the following (p. 34):

- Capitalise and build on the Western Cape's comparative strengths (e.g. gateway status, knowledge economy, lifestyle offering) and leverage the sustainable use of its unique spatial assets;
- Consolidate existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation;
- Connect urban and rural markets and consumers, fragmented settlements and critical biodiversity areas (i.e. freight logistics, public transport, broadband, priority climate change ecological corridors, etc.); and
- Cluster economic infrastructure and facilities along public transport routes (to maximise the coverage of these public investments) and respond to unique regional identities within the Western Cape.

5.3.3 Western Cape Land Use Planning Guidelines - Rural Areas, 2019

The Western Cape economy relies on its unique assets, including agricultural resources, natural capital, and scenic and cultural attractions that make it South Africa's top tourism destination (Western Cape Government, 2019). The guidelines issued by the Department of Environmental Affairs and Development Planning are intended to promote sustainable rural development, protect biological diversity, maintain ecosystem functions, safeguard agricultural land, and conserve rural heritage and culture.

Municipalities categorise settlements either by defining an urban boundary or by applying criteria from the Department of Environmental Affairs and Development Planning, in line with the 2014 NEMA Listing Notices (p. 29). Sustainable development and effective management are vital, with existing settlements primarily designated for non-agricultural activities and facilities. This approach aims to foster local economic growth, reinforce and streamline settlement structures, enhance service delivery, strengthen rural-urban links, promote socio-economic development, and raise standards for service provision and social infrastructure.



Activities should be compatible and sustainable, be well-suited to a rural setting, provide positive socio-economic benefits, and prevent harm to the environment, the municipality's ability to meet its responsibilities, or the right to farm. They should also be appropriately scaled and designed to take place outside urban edges, except in designated wilderness zones. Municipal SDFs should include growth management tools such as densification strategies with specific targets for settlement areas; establish an urban edge to protect high-value agricultural land and restrict settlement expansion; and offer development incentives to promote integration, higher densities, and suitable development types.

Regarding location, the municipal SDF and its urban edge should identify zones for expanding existing settlements. Visual impact is particularly important at settlement entrances. Encroachment into farmland, scenic areas, and areas vital for biodiversity and ecological services - particularly between settlements, along coastlines, and in river corridors - must be avoided. Urban growth should align with the Settlement Toolkit (PSDF Annexure 3), which provides spatial guidance for implementing the PSDF's proposals at municipal, town, and precinct levels.

An important consideration is curbing the formation of new settlements, which negatively impacts municipal financial sustainability. Where new settlements need to be established, consideration needs to be given to:

- Accessibility and public transport availability, universal access and access for the disabled;
- Infrastructure provision and cost, and long-term maintenance costs;
- Environmental impact (e.g. waste management);
- Agricultural impact;
- Visual impact, especially on the rural landscape;
- Historical settlement patterns and form; and
- Natural landscape and topographical form as design informants.

New buildings and structures should conform to the massing, form, height and material use in existing settlements. When accommodating development in existing settlements, the following principles should be adhered to:

- Retain the compact form of smaller settlements.
- Maintain and enhance public spaces.
- Reinforce the close relationship of settlements to the regional route structure.
- Integrate new development into the settlement structure.
- Respect socio-historical and cultural places.

New settlements should align with and enhance a settlement hierarchy that accounts for their economic, social, and spatial significance. This hierarchy reflects the roles, characters, and locations of each settlement relative to the others while maintaining the overall structure of towns, villages, hamlets, and farmsteads. The Settlement Spatial Planning Category (SPC) Delineation Guidelines emphasise the following points:

- Municipal SDFs should divert urban growth pressures away from Critical Biodiversity Areas (CBAs).
- Urban "fringe areas" earmarked for urban development or expansion should be included in the Settlement SPC.
- Record high potential and unique agricultural land in SDFs and demarcate urban edges to protect these assets.
- Use CBA, ESA (Ecological Support Areas) and high-potential and unique agricultural land mapping to inform delineation.



5.3.4 Garden Route Growth and Development Strategy (GDS) 2021-2040

The GDS (Garden Route District Municipality, 2021) identifies "Resilient Agriculture" as one of its seven core strategic pillars and outlines a long-term vision to transform the region's agricultural sector into a competitive, inclusive, and sustainable one. The main agricultural points of the strategy include:

- **Transition to Resilient and Niche Agriculture:** The strategy emphasises adapting to climate change and water scarcity by adopting climate-resilient farming methods and promoting niche, high-value commodities (such as honeybush tea, berries, and indigenous crops) suited to the Southern Cape's environment.
- **Expansion of Agro-Processing Capabilities:** A major goal is to add value to raw agricultural products locally before export. This involves establishing district-wide agro-processing infrastructure, shared hubs, and producer-owned facilities (such as honeybush tea processing units) to create jobs and boost local economic output.
- **Regenerative and Conservation Farming:** The GDS promotes regenerative agriculture practices that rehabilitate soils, retain moisture, reduce the reliance on synthetic chemicals, and preserve the ecological infrastructure of the Garden Route.
- **Water and Resource Efficiency:** In light of recurring droughts and constraints on bulk water supply, the strategy stresses the need for farmers to invest in advanced irrigation technology, water-use reduction measures, and non-wasteful farming techniques.
- **Support for Emerging and Smallholder Farmers:** The strategy coordinates with skills development programs (such as the Garden Route Skills Mecca) and the Department of Agriculture to provide small-scale farmers with training, mechanisation support, market access, and agricultural advisory services.
- **Strengthening Rural-Urban Linkages:** The strategy aims to connect rural production nodes with urban logistics networks along the N2 corridor, ensuring a reliable flow of inputs and outputs through better local transport and infrastructure management.

5.3.5 Garden Route IDP (2022-2027)

The Garden Route District Municipality Integrated Development Plan (2022) identifies agriculture as one of the district's key economic sectors, especially in the rural areas of the Garden Route and Klein Karoo. The IDP and related economic development documents emphasise agriculture's role in:

- Employment creation
- Rural development
- Food security
- Agro-processing and value chains
- Tourism linkages
- Land reform and support for emerging farmers

Key points about agriculture in the IDP include:

- **Agriculture is a major economic sector:** The municipality describes agriculture, forestry and fishing as important contributors to the regional economy alongside tourism, manufacturing and trade. The IDP specifically highlights livestock farming, dairy, ostrich farming in the Klein Karoo, crop production, forestry, and agri-processing opportunities.
- **Focus on rural development:** The IDP strongly links agriculture to rural upliftment. The municipality states that it aims to "promote integrated rural development and social upliftment", improve the quality of life in rural communities, support rural economic participation, and strengthen agricultural nodes.
- **Support for emerging and small-scale farmers:** The IDP and ward priorities identify demand for land access for small farmers, agricultural support programmes, and inclusion of rural communities in development initiatives.



- **Agriculture linked to economic development strategies:** The District's economic development planning promotes agricultural value-chain development, agro-processing, investment attraction, and integration with tourism.

5.3.6 George Municipality SDF (2023)

The George Municipal Spatial Development Framework (MSDF) identifies rural areas and agricultural land as critical economic, environmental, and productive resources. The framework emphasises balancing urban expansion with protecting agricultural assets. Key agricultural points raised in the MSDF include:

- **Protection of the Productive Landscape:** The framework prioritises safeguarding fertile farmlands and agricultural areas from uncontrolled urban encroachment to maintain the productive landscape and ensure long-term economic and environmental sustainability.
- **Subdivision and Minimum Lot Sizes:** The MSDF maintains that the principal use of designated agricultural areas remains *Agriculture Zone I*. A minimum subdivision area of 40 hectares is supported, subject to comment and approval from the relevant agricultural and land-use authorities.
- **Land Use Management:** The framework outlines specific management concerns for agricultural land, including:
 - The scale, placement, and visual impact of farm structures and intensive farming practices (such as tunnel farming).
 - The restriction of potentially incompatible uses, such as certain types of livestock farming located near or adjacent to residential/urban interfaces.
- **Climate Change and Resilience:** The MSDF recognises the sector's vulnerability to climate change, drought, and water scarcity. It emphasises sustainable farming practices, efficient water use, and the conservation of ecological infrastructure.
- **Regulatory Alignment:** The framework notes that any subdivision or change in land use on land subject to the Subdivision of Agricultural Land Act (Act 70 of 1970) remains under the jurisdiction of the national Department of Agriculture, Land Reform and Rural Development (DALRRD).
- **Enhancing Rural Character and Livelihood:** The MSDF supports the integration of rural livelihoods, facilitating economic opportunities through agri-processing, strengthening rural-urban linkages, and protecting rural heritage.

The SDF also addresses the establishment of agri-villages, which are “privately established and managed settlements on private land within a farming area and exclusively accommodate the local agri- worker community. The only circumstances under which an agri-village should be considered include the following:

- In a farming area where there is a concentration of agricultural workers due to the type of agricultural activities and that has a substantial demand for “off-the-farm” settlement.
- Areas where there are no established settlements within practical commuting distance (approximately 30 km) and a municipality that has no feasible means of establishing and managing a new town.
- Considering the substantial managerial and financial resources required to establish and maintain small settlements, and their potential negative impact on the environment and also due to the relatively short distance between settlements in the Western Cape, the establishment of agri-villages or new settlements as “off-the-farm” options both have limited applicability in the Western Cape”.

5.3.7 George IDP (2022-2027)

The **George Municipality Integrated Development Plan (IDP) for 2022–2027** outlines a strategic roadmap that integrates agriculture as a vital component of the region's economy, employment base, and environmental management. Key points include:



- **Strategic Regional Anchor:** The IDP recognises the George municipal area as a key Regional Development Anchor along the N2 corridor. This positioning highlights the strong interconnection among high-value rural production areas, ecological resource regions, and urban nodes, providing opportunities to consolidate supply chains and enhance multimodal connectivity.
- **Economic Contribution and Value Chains:** Although the primary sector (agriculture, forestry, and fishing) accounts for a smaller share of the local GDP, the IDP notes its crucial role in rural employment and as a feeder to the secondary sector. The strategy supports the growth of agro-processing and value-added facilities to retain value locally before export.
- **Sustainable and Regenerative Farming:** The plan emphasises a shift toward conservation and regenerative agriculture to rehabilitate soils and maintain productivity. It encourages practices that restore soil organic matter, retain moisture, and reduce chemical inputs, thereby maintaining long-term agricultural and ecological health.
- **Spatial Alignment and Protection of Resources:** Operating in tandem with the Spatial Development Framework, the IDP prioritises protecting fertile farmlands and high-potential agricultural land from uncontrolled urban encroachment and land-use conflicts.
- **Climate Resilience:** The IDP acknowledges the risks of climate change - such as drought and water scarcity - and promotes resource-efficient agricultural methods, improved water infrastructure, and the cultivation of resilient or niche crops suited to the Southern Cape's year-round rainfall and varied climatic zones.

The IDP Review (2026) highlights key climate-related transformations across five sectors: (i) human settlements and spatial planning; (ii) natural capital and biodiversity; (iii) infrastructure; (iv) disaster management; and (v) water and sanitation. Shifts in rainfall patterns will impact water supply for agriculture, households, and downstream ecosystems. Changes in fire regimes and climate conditions may favour invasive plants such as Acacia and Eucalyptus, which outcompete native fynbos and reduce biodiversity. More frequent and severe wildfires, caused by prolonged dry periods, could harm the diversity of forests and fynbos.

5.3.8 George Economic Development Strategy (2012)

George Municipality strives to continuously improve the local business climate while rallying public-sector support to build a sustainable economy that utilises George's natural resources and those of the surrounding region. The Municipality should provide a supportive, business-friendly environment within legal and regulatory frameworks and actively work to remove structural barriers to investment, retention, and growth. The aim is to strengthen resilience against competition, encourage collaboration, support large-scale entrepreneurship, and generate sustainable, high-quality employment.

The municipality's Economic Development Strategy (George Municipality, 2012) is structured around a 5-P framework to guide its medium- to long-term economic planning:

- **Perspective:** Capitalises on the region's comparative advantages - such as its moderate climate, outdoor lifestyle, and good infrastructure - to position George as a highly livable, attractive, and regionally connected city.
- **Position:** Identifies the sectors where George holds a natural competitive advantage, i.e. timber, vegetable and fruit production, and more uniquely in berry production.
- **Plan:** Aims to specialise in these specific comparative advantages, especially berries, fruit and vegetables, by fostering collaboration across stakeholders and building local public-private partnerships.
- **Ploy:** Promotes the development of scalable, producer-owned processing facilities (such as tertiary co-operatives) to create early-mover advantages and add value to local products before export.
- **Pattern:** Drives action toward making the city an agri-business cluster while providing systematic support for new entrants and small to medium-sized enterprises (SMMES).



5.4 Conclusions

The development aligns with national, provincial, and local policies, strategies, and programs, supporting current spatial planning and advancing strategic goals at all levels. George Municipality's approach to rural development is based on protecting rural land and resources, supporting agriculture and tourism, improving livelihoods and infrastructure, strengthening existing rural settlements, and integrating rural economies into the broader regional economy. The proposed development involves establishing small-scale farming units and securing residential rights for farm workers and beneficiaries with established tenure. The proposal aligns with the WCPSDF by improving the agricultural potential of the Hoogekraal footprint, which is not currently farmed productively, while also safeguarding the rural character and scenic assets. Hoogeland retains agriculture where applicable and, through viable farming practices, would generate economic growth and employment opportunities in the George Municipality. Although the George SDF discourages new rural settlements, this residential village aims to formalise the tenure rights of existing beneficiaries on the farm, rather than creating a new settlement.

6 AGRICULTURAL VIABILITY ANALYSIS

6.1 Introduction

This section is a standalone report prepared with input from and reviewed by Agri Informatics (2026)³. It should be read in conjunction with the Agriculture Agro-Ecosystem Report prepared by Malan (2026), which further motivates reconfiguring the approved consolidation and subdivision of a collection of 33 Portions of the Hoogekraal Farm No 238, as shown in **Figure 14**, and for the Environmental Application (EA) and town planning application processes. The purpose of this section is to provide a financial overview of the agricultural viability of Hoogekraal Farm No 238.

The farms proposed north of the N2 National Road will be used for more extensive agricultural purposes and will be reduced from six to five cadastral units. As there is no fundamental change to the existing scope of this portion and the focus will be on intensified agriculture, this assessment covers only the Hoogekraal Farms south of the N2.



Figure 14: Farm portions of the Hoogekraal application, to be consolidated and subdivided.

Source: Agri Informatics (2026)

³ Francois Knight is a registered scientist with the South African Council of Natural Scientific Professions (SACNASP, Reg No 149315)

The dominant farming activity in the area is the keeping of livestock on planted dryland pastures. The pastures are confined to land with moderate to flat slope gradients and suitable soil properties, covering a total area of 257 ha within the study area, and are considered the maximum extent of arable land (**Figure 15**).

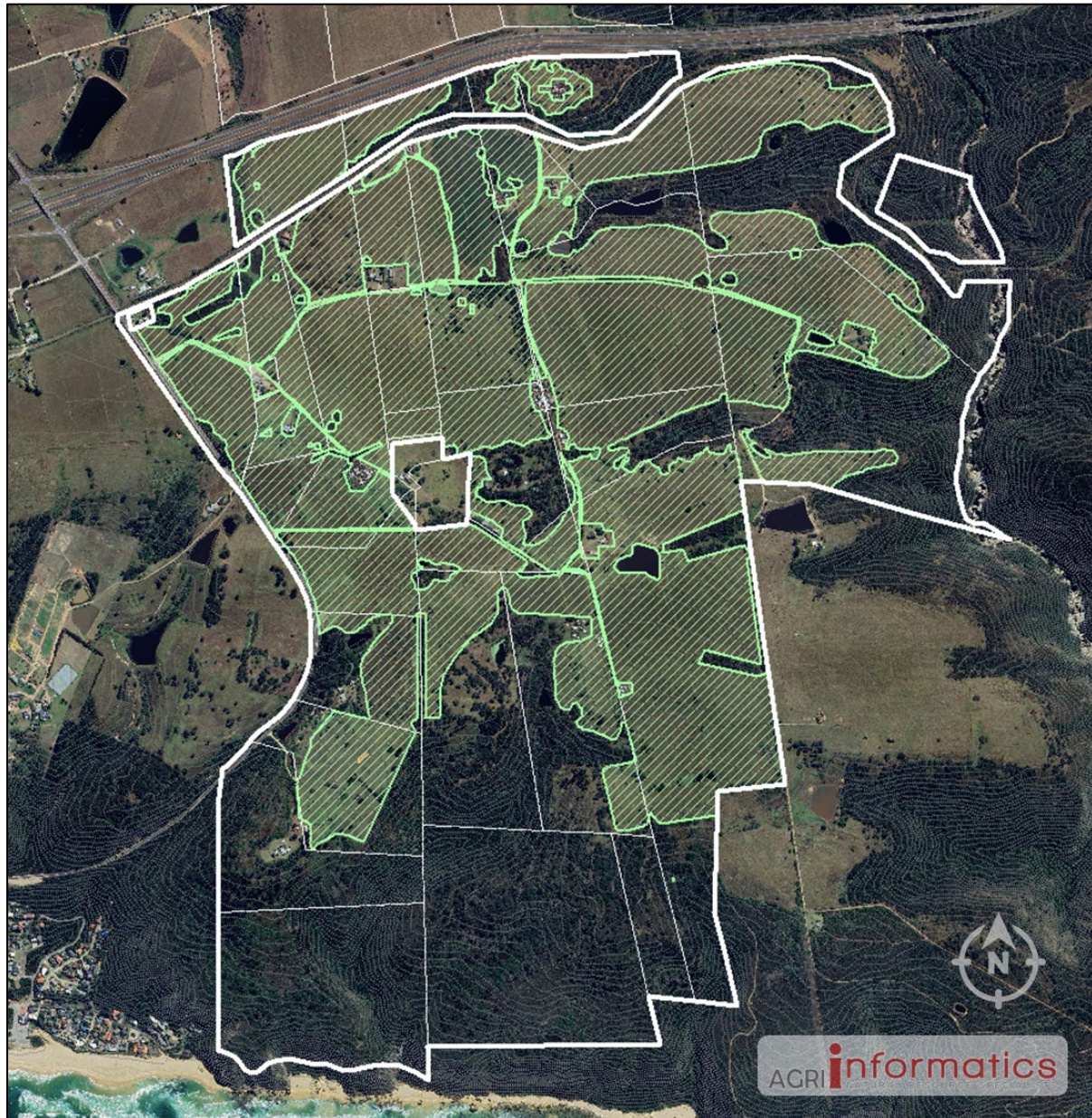


Figure 15: Maximum extent of the historically cultivated footprint.

Source: Agri Informatics (2026)

A base model covering 257 ha of dryland pastures and livestock was developed to represent the farms' historic maximum agricultural utilisation for grazing and livestock production.

It is useful to evaluate the Hoogekraal area in the context of the wider agricultural economy. The Western Cape contributes approximately 16% to South Africa's national agricultural Gross Value Added (GVA). This amounted to R25,6 billion in 2023. Within the Western Cape, the agricultural sector contributes about 4,7% to the provincial gross domestic product (GDP). In addition, primary agriculture supports over 202 000 jobs in the province, representing 7,3% of total employment. The Western Cape province is divided into six districts for agricultural



reporting purposes. Within this, the Garden Route District contributes about 13% (R3,01 billion) to the provincial Agriculture GVA, with the George municipality contributing around 4-5% (R1,28 billion)⁴.

The Agro Ecosystem Analysis (Malan, 2026) is aligned to the proposed reconfiguration of the Hoogekraal Farms 238. The following calculation estimates the available suitable soils for avocado and macadamia farming and aligns with the proposal to reconfigure the land portions into agricultural and conservation smallholdings.

Total extent of agricultural and conservation properties (Farm 238):	475 ha ⁵
Total extent of agricultural properties (57):	325 ha (70%)
Total extent of conservation properties (24):	150 ha (30%)
Total extent of hard surfaces for the agricultural properties:	28,5 ha (0,5 ha x 57)
Total net extent of properties available for agriculture:	256,7 ha
Apportion footprint to determine the extent of suitable soils:	40,8%
Total hectares available for macadamia or avocado farming ⁶ :	128 ha

The Agricultural Viability Analysis for avocado or macadamia nut farming can be based on a maximum land area of 128 ha. This may not align with what an owner of a small-scale farming unit would do with the 4,5 ha available for agricultural purposes, given any constraints that may exist (e.g., irrigation water). Furthermore, the small-scale farming units are considered for lifestyle farming, which is assumed not to be for profit or to achieve an investor return. Should any revenue be generated from the sale of crops or agricultural products, the intention is likely to cover running costs as far as possible. Agriculture would appeal to potential buyers for lifestyle reasons (e.g., partial self-sufficiency), the rural character, and the setting and aesthetic beauty, including the location's natural scenery.

6.2 Historical and existing land uses

A breakdown of the land uses of Hoogekraal Farm 238 is shown in **Table 3**. Dryland pastures and Fynbos/forests/tree clusters are the predominant land uses, with areas reserved for farmyards, dams/ponds, and roads making up the rest. As **Figure 16** clearly shows, pastures (associated with livestock) account for more than 50% of the area, followed by forests and Fynbos. These land uses represent about 95% (rounded) of the area. This clearly indicates that other land uses, such as orchards and other agricultural activities, are not prevalent on Hoogekraal Farm 238. Introducing avocado and macadamia orchards would add a new farming activity.

Table 3: Breakdown of land uses for Hoogekraal Farm 238

Land use class	Total area (ha)	Percentage
Dams and Ponds	6,4	1,2%
Drainage Areas	1,9	0,4%
Farm yards	10,8	2,0%
Forests and Fynbos	228,4	43,1%
Pastures	272,5	51,5%
Roads	9,4	1,8%
TOTAL	529,5	100,0%

Source: Agri Informatics (2026)

⁴ Garden Route District Municipality (2026)

⁵ Marike Vreken (2026)

⁶ *Ceteris paribus* means "all other things being equal," and is used to analyse the effect of one variable while holding other factors constant (e.g. supplemental irrigation water)

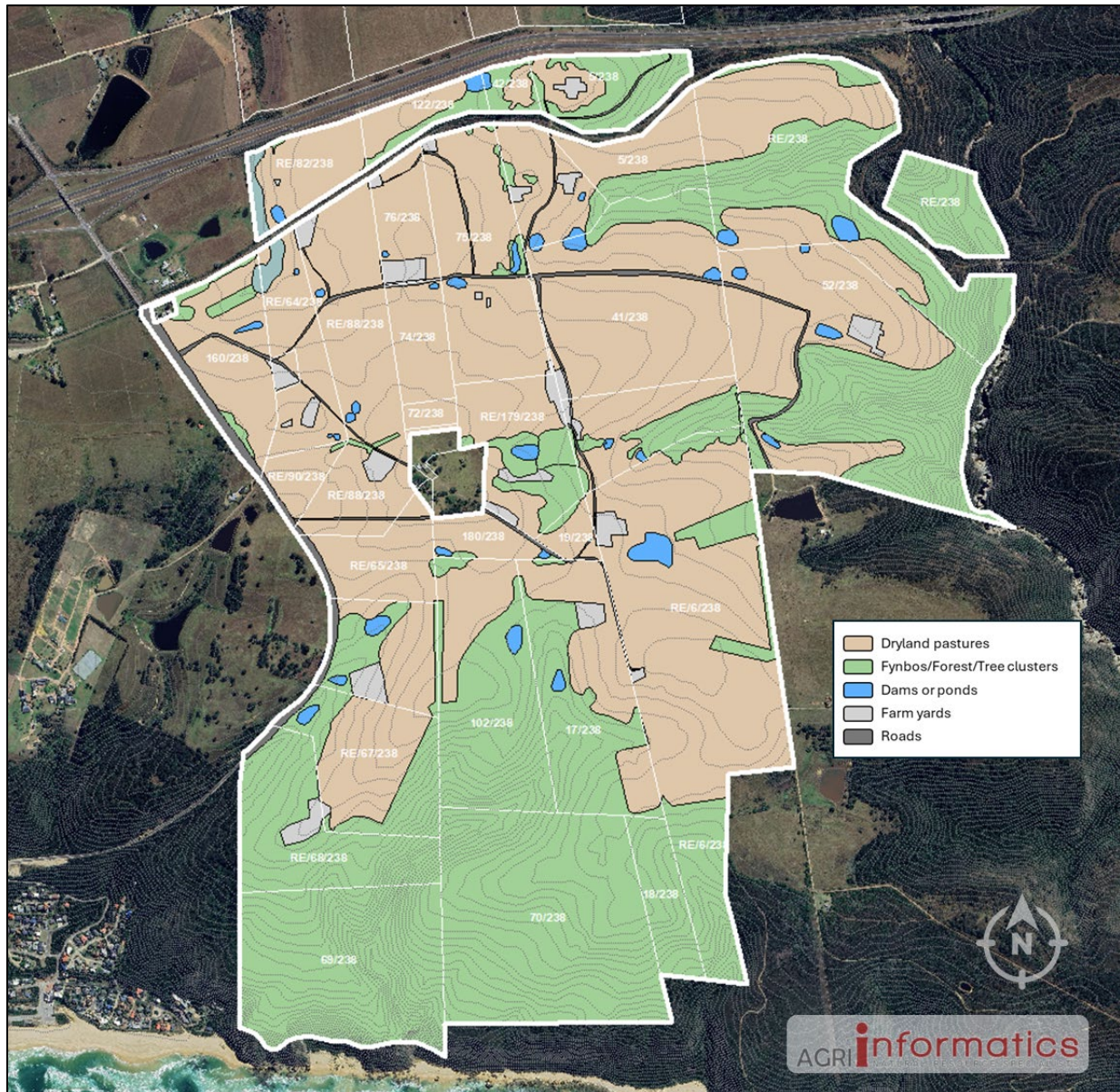


Figure 16: Current land use of the study area.

Source: Agri Informatics (2026)

Figure 17 illustrates a historical overview of Hoogekraal Farm 238 from 2015 to 2025. The time-lapse shows a permanent shift from intensive, localised irrigation to a broader, rain-fed (unirrigated) management system across the areas of the property where livestock graze. The dates of the aerial photos also show the effects of winter rainfall. These photos also align with the current land uses on the Hoogekraal Farm 238, as indicated in **Table 3**.

The grazing capacity of natural veld (as per the 2018 Cape Farm Mapper) is 71-80 ha/LSU (Large Stock Unit) (Malan, 2026). However, the grazing capacity of rain-fed pastures (low intensity) is estimated at 0,8 to 1,0 LSU's per ha (Agri Informatics, 2026). This significant difference is highlighted as an error in the Malan Report.

The historic (current) grazing capacity (on 257 ha) is estimated at about 300 LSU or 1 800 SSU. While George receives high rainfall, the natural vegetation in certain pockets (especially those with sandy or "sour" mountain fynbos) doesn't naturally provide high-protein grazing for cattle, which is likely why the shift moved toward higher-value permanent crops such as macadamia and avocado.



21 August 2015



11 August 2018



3 August 2020



14 May 2022



20 March 2024



14 September 2025



Figure 17: A time-lapse of agricultural activity at Hoogekraal Farm from 2015 to 2025.

Source: Agri Informatics, 2026



6.3 Natural resource base

While the George area is traditionally known for dairy, vegetables, and hops, it is emerging as a hub for cultivating high-value permanent crops such as macadamias and avocados. This shift is driven by a unique combination of its maritime climate, soil profile, and geographic position. Macadamias and avocados are subtropical trees that are notoriously frost-sensitive. George's proximity to the ocean helps regulate temperatures; George rarely experiences severe frost or extreme heat spikes (over 38°C), both of which could cause flower and fruit drop. The area typically records temperatures between 10°C and 28°C. For avocados, maintaining temperatures above 13°C during the flowering window (August/September) is critical for fruit set, and George can meet this condition.

Both crops require abundant water and high humidity to thrive. George is one of the few areas in South Africa with an "all-year-round" rainfall pattern. The area receives an average of 720 mm annually, as measured at the nearby Outeniqua experimental farm. While supplementary irrigation is still required for commercial yields, the high natural rainfall significantly reduces the risk of water stress compared with the drier northern provinces. High humidity (often exceeding 60% in George) reduces the trees' transpiration stress. This is vital during the hot summer months to prevent the nuts and fruit from shrivelling or falling prematurely.

Soils in the area have developed mainly from gneissic granite and granodiorite, resulting in shallow duplex soils (Malan, 2026). These soils are characterised by a light-textured topsoil (3-10% clay) overlying a heavy-textured subsoil (35-60% clay). The term Duplex therefore refers to a soil type with a sharp, abrupt contrast in texture between the topsoil (A horizon) and the subsoil (B horizon). Typically, it features sandy, porous topsoil overlying dense, heavy clay subsoil. Although duplex soils can be substantial in depth, this depth is often compromised after rain events, when water is retained in the underlying clay, leading to waterlogged conditions detrimental to plant roots. Malan (2026) indicates that most of these duplex soil types are categorised as low potential with a high erosion hazard. High-potential soils account for a small proportion (4,5%) of duplex soils.

Malan (2026) indicates that the suitability of the soils and the type of crop that may be suited to the soil class on the Hoogekraal Farm is as follows:

Percentage Class (Permanent Crops)	Proposed Agricultural Activity	Allocation (ha)
Not Recommended 59,2%	Grazing / Planted Pastures / Dryland Bale production, Vegetables	186
Conditionally Recommended 28,3%	Potential for Permanent crops – Avocado, Macadamia, Wine Grapes	89
Recommended 12,1%	Potential for Permanent Crops – Avocado, Macadamia, Wine Grapes	38
Highly Recommended 0,4%	High Potential for Permanent Crops - Avocado, Macadamia, Wine Grapes	1

Source: Malan (2026), p. 6

According to the Land Capability Assessment prepared by Schloms and Lambrechts (2005), as reported in Malan (2026), the farm is not viable for commercial cultivation of perennial or annual crops. This is partly due to limited soil potential and available irrigation water. Permanent crops such as avocados and macadamia nuts could be more suitable, depending on their profitability and the commercial viability of farming these crops. The area is rapidly becoming a popular growing area for these crops, as demonstrated by the neighbouring 60 ha avocado farm established by Summer 16.

The property has irrigation rights from the Maalgate River and has used them to fill some of the property's dams. Total water rights amount to roughly 100 000 m³ per annum (Malan, 2026). In total, 13 dams were built on the property to meet cattle water needs; limited, periodic irrigation is possible but uncommon. These dams will remain in use for future agricultural production. With an average annual rainfall of about 700 mm, supplemental irrigation will be needed in the drier summer months if macadamia and avocados are cultivated.

The Town Planner for the proposed development, Marike Vreken (2026), indicates that 475 ha of the Hoogekraal Farms would be reconfigured to represent agricultural and conservation smallholdings. The area for grazing/planted pastures is 186 ha (rounded). The remaining conditionally recommended, recommended, and highly recommended soils account for 41,8% (128 ha). For further analysis and determination of agricultural viability, 128 ha could be assessed for macadamia nut and avocado farming (refer to **Section 6.1**), ignoring water rights, annual rainfall and water availability, and based on soil potential. The pasture assessment, which refers to beef or mutton production and represents historic farming on the property, is based on 186 ha.

The proposed subdivision, as shown in an aerial view of Hoogekraal Farm 238 in **Figure 18**, considers the aquatic buffers applicable to the property.

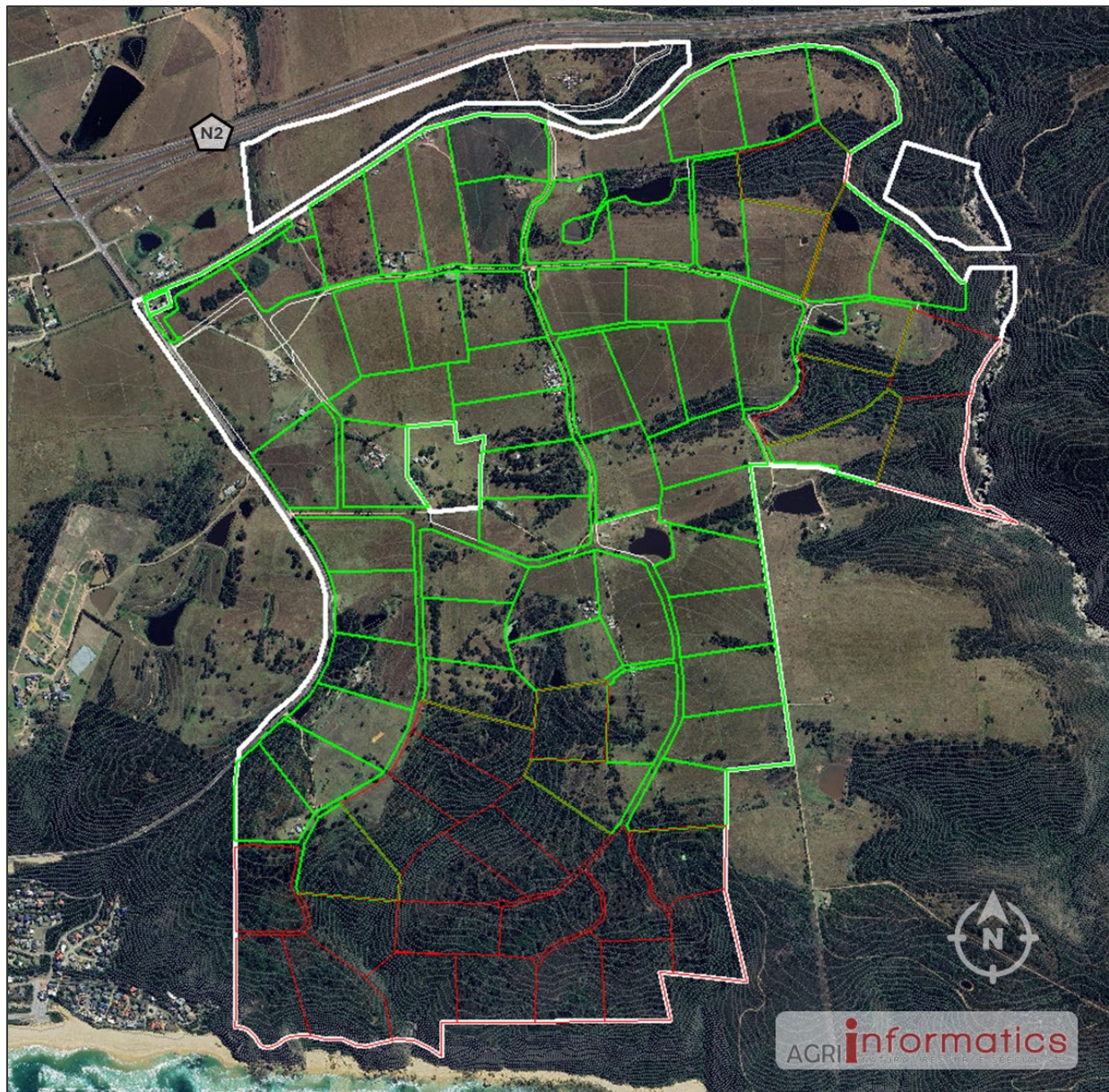


Figure 18: Proposed subdivision of the Hoogekraal farms. Agricultural smallholdings are indicated by green lines, and conservation parcels by red lines.

Source: Agri Informatics (2026)



6.4 Water requirement for avocado and macadamia trees per annum

In the George area of the Southern Cape, a mature avocado orchard typically requires approximately 8 000 to 9 000 m³ of water per hectare per annum (Carr, 2013). This figure represents the total crop water requirement. Because George is a year-round rainfall area (receiving about 700 mm annually), a significant portion of this requirement can be met by effective rainfall. However, to maintain commercial yields and fruit size, supplementary irrigation is essential, especially during the critical flowering and fruit-set stages.

For the George region, the supplemental water required for avocado orchards could range between 3 000 m³ and 4 500 m³/ha per annum (or approximately 300 mm to 450 mm of equivalent water depth; Taylor et al., 2021). For mature macadamia orchards in South Africa, the total annual crop water requirement (ETc) generally ranges from 7 500 to 9 500 m³/ha. A significant portion of this requirement can be met by effective rainfall. The net supplementary irrigation water required per annum for a hectare of macadamia nuts is 3 500 m³ to 4 500 m³. This supplemental water requirement is based on a 60% crop canopy coverage.

Number of hectares that can be cultivated with the supplemental water requirement:

Available water rights from existing dams: 100 000 m³

Average supplemental water requirement per annum per ha:

Avocado:	3 950 m ³
Macadamia:	4 000 m ³

Number of potential ha based on supplemental water requirement, water rights and availability:

Avocado:	25 ha (rounded)
Macadamia:	23 ha (rounded)

If supplemental water were not limited, then approximately 128 ha of orchards could be used for avocados or macadamia nuts. Based on the available water rights and the need for supplemental water for the orchards during the summer months, the number of hectares that could be cultivated is reduced to approximately 25 ha for avocados or 23 ha for macadamia nuts. The Agricultural Viability Analysis is based on the number of ha permissible given the water constraint, while the remaining arable land is used for dryland (rain-fed) pastures.

6.5 Viability of existing pastures and livestock farming

Figure 19 shows the farming units comprising the Hoogeland project south of the N2. The majority (20 of the 28 land portions) are less than 10 ha, and eight are larger than 10 ha. A single 43-ha farm is considered an outlier. The question is whether the individual farming units are viable for pasture and livestock farming.

For beef cattle to meet the commercial benchmark of an economically viable, independent livestock unit or enterprise, a herd of roughly 100 to 120 breeding cows is generally considered the baseline. To absorb fixed operational costs (handling facilities, bull genetics, transport, and labour), a minimum footprint of 60-80 ha is required. At a conservative dryland pasture stocking rate of 1,0 LSU per ha, a 70-hectare footprint sustainably carries about 70 adult stock units. Research suggests that if pasture management is optimised through intensive strip grazing or multi-species dryland mixes, it may be possible to reduce the footprint to 50-60 ha, but this reduces the safety buffer against anomalies that may occur in drier seasons.

Preservation and Development of Agricultural Land Act (PDALA) legislation refers to a viable farming unit that means “the minimum area of agricultural land required for a farming unit practising sustainable agriculture and that is economically viable and generates revenue from its agricultural production operations.....”. An evaluation of the land viability to develop a fully self-sustaining commercial livestock business without relying on external off-farm income, 80 ha of clean, arable dryland pasture is the safest structural minimum for cattle. Anything smaller transitions the venture into a part-time lifestyle farm or a specialised intensive backgrounding/feed lot system. **Figure 19** indicates that none of the individual farming units is viable based on the benchmark for a viable commercial production unit. Even the largest land portions fall short of the 60-ha benchmark.

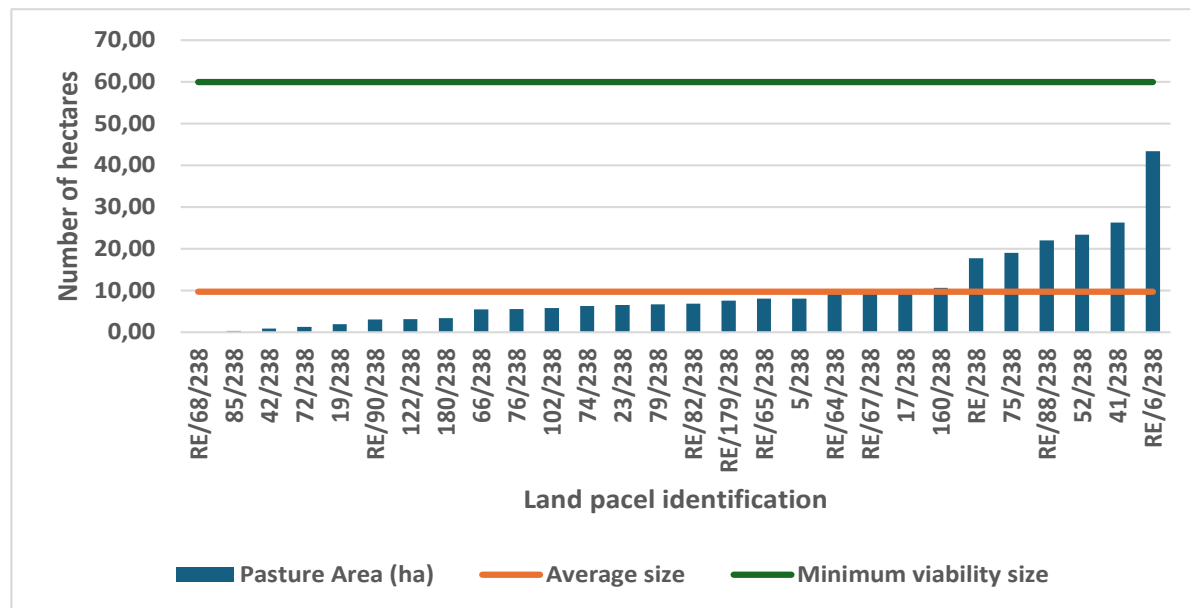


Figure 19: Farming units comprising the Hoogekraal Farm south of the N2.

In terms of Act 70 of 1970, there is case law, “Case CCT 78/07 [2008] ZACC 12: Wary Holdings (Pty) Ltd versus Stalwo (Pty) Ltd and Another”, to determine whether the Minister was correct in finding that the subdivision would result in the non-viability of the farm or lead to any part of the farm being uneconomical. *The essential purpose of the (Subdivision of) Agricultural Land Act has been identified as a measure by which the legislature, in the national interest, sought to prevent the fragmentation of agricultural land into small uneconomical units. In order to achieve this purpose, the legislature curtailed the common-law right of landowners to subdivide their agricultural property. It imposed the requirement of the Minister’s written consent as a prerequisite for subdivision, quite evidently to permit the Minister to decline any proposed subdivision which would have the unwanted result of uneconomic fragmentation.*” (Constitutional Court, 2008)

In Van der Bijl and Others v Louw and Another 1974 (2) SA 493 (C), the court considered the purpose of the Subdivision of Agricultural Land Act 70 of 1970. Baker J explained that the purpose of the Act is: “to prevent the situation where farming units are created which are not economical or could be described as non-viable sub-units.” The important implication from this judgment - and later SALA case law - is that the Act is aimed at **preventing the fragmentation of viable agricultural units into uneconomic units**, not at preserving land that is already economically non-viable as a farming unit.

In addition, Section 4.5 of the George Municipal Spatial Development Framework (MSDF) (2023-2027), which addresses Rural Development and Land Reform, outlines the George Municipality's intention to protect high-potential agricultural land while facilitating economic diversification. Intensification is highlighted as a policy that encourages the transition from "extensive" land uses (such as grazing) to "intensive" ones (such as orchards and berry crops), particularly in areas with proven water security and poor soil quality. However, embarking on such farming would need to be financially feasible (profitable) and carried out at scale.

6.6 Baseline model to estimate the historic agricultural viability for dryland pastures for raising beef cattle

The George Municipality acknowledges that grazing activity and pastures on the Hoogekraal Farms are declining, with a shift towards higher-value crops such as macadamia and avocado. From a grazing perspective, the area has been declining for various reasons. However, to establish a baseline and model the “maximum” agricultural potential, along with the area's related financial viability and sustainability, it seems reasonable to assess 257 ha for grazing and beef cattle rearing, even though this is not recommended in the Soil Suitability Analysis.



6.6.1 Methodology

It is assumed that the 2025/26 production costs and cattle prices are realistic and will remain constant throughout the 25-year assessment period. This means the estimated 2025/2026 profitability levels will form the basis for financial projections. Accordingly, projected monetary figures must be discounted at the real risk-adjusted rate to calculate a Present Value (PV). A cash flow model showing net cash flow is used for the financial calculations. As indicated, we assumed a 25-year assessment period, which is considered sufficient to illustrate the net cash flow effects of dryland pastures, avocado, and macadamia farming. The calculations are based on constant 2025/26 price levels. Future expected income and costs are discounted using a real risk-adjusted discount rate of 7,83% per annum (calculated from the current nominal prime rate of 10,25% per annum and an inflation rate (CPI) of 3,2%). A 1% premium is added to the real discount rate to reflect risk. The expected net cash flow is represented by the Net Present Value (NPV) in current terms over the 25-year assessment period.

6.6.2 Assumptions for dryland pastures and rearing of beef cattle

The Hoogekraal Farms are used for grazing cattle and for producing feed for the existing cattle and are not specifically farmed for lucerne production or dryland bale production. The approach adopted treats the combined properties as a footprint for dryland pastures and for the commercial rearing of beef cattle, reflecting the property's historic farming. **Table 4** indicates the key assumptions used for the analysis.

Table 4: Key assumptions adopted for dryland grazing and rearing beef cattle

Item	Value / Unit
Number of hectares (rounded)	257
Size of herd (Beef Cattle / LSU)	300
Stocking rate (ha per animal unit)	0.91 ha / LSU
Productive lifetime of breeding stock (years)	6 to 8
Age at first calving / marketing maturity (years)	2 to 2.5
Permanent labour / ha / year	R6 500
Management / ha / year	R4 200
Herd health and veterinary costs (R / LSU / year)	R450
Feed supplementation and licks (R / LSU / year)	R185
Operating costs of pastures (R / LSU / year)	R5 783
Stock handling and fencing maintenance / ha	R15 000
Mechanical and implements / ha	R48 000
Bare land outlay / ha (George / Southern Cape)	R55 000

Sources: Agribook (2024); Agrisell (2025); Red Meat Producers Organisation (2025); Western Cape Department of Agriculture (2024a)

Several items listed as assumptions in **Table 4** are unpacked below to support the inputs used in the cash flow modelling.

6.6.3 Revenue analysis

Revenue potential is determined by the market price per cattle unit and its weight per kg. Research on market prices and animal weight varies. For a semi-intensive operation focused on producing and selling weaners directly to feedlots, pricing is calculated per kilogram of live weight. National Benchmark indicates R40,50 – R42,90 per kg, and the Western Cape Specific Range is R37,80 – R41,90 per kg, based on a healthy 220 kg commercial weaner calf at local auctions (such as BKB or GWK sales in the George region).

We adopted this guidance to determine revenue, using an average price of R41,90 per kg and an average weight of 230 kg.



6.6.4 Establishment costs

The estimated establishment cost for the farm is R8 005 600, which translates to R29 325/ha (**Table 5**). The establishment costs are allocated based on an increasing production curve.

Table 5: Establishment costs and set-up capital requirements for a 257-ha dryland pasture

Category	Estimated Cost (R)	Key Items
Pasture Establishment	R2 025 000	Initial land preparation and agronomic inputs required to replace low-value native scrub or degraded veld
Fencing & Camp Layout	R175 250	Cost of dividing the property into a structured grid of grazing camps (paddocks) using durable, stock-proof fencing
Water Reticulation & Storage	R125 200	System required to extract, store, and pump clean drinking water across the entire camp layout, ensuring every single paddock has a reliable water source.
Handling, Kraals & Neck Clamp	R75 150	A centralised, heavy-duty sorting and processing facility (corral system) designed to safely confine, sort, and hold livestock for medical treatments, artificial insemination, branding, and loading.
Livestock purchase (herd and bulls)	R4 755 000	For dryland systems, the focus is strictly on hardy, adaptable breeds (such as Bonsmara, Brahman, or Nguni crossbreeds) that can cover long distances and maintain body condition on dry forage.
Machinery and implements	R850 000	The mechanised fleet and attached implements required to manage pasture maintenance, crop establishment, and daily farm logistics
Total	R8 005 600	

Sources: Western Cape Department of Agriculture (2025b)

6.6.5 Operating costs

For the purposes of the modelling, the operating costs are indicated per LSU (**Table 6**). Research suggests an estimated annual cost of R5 783 per LSU. The total annual operating costs for 300 beef cattle are R1 735 000 and are applied at constant rates over the assessment period.

Table 6: Breakdown of operating cost components per LSU

Cost Component	Description	Estimated Annual Cost per unit
Licks and supplements	Protein supplements (often containing urea) used during dry, dormant months to help the cattle digest coarse, dry grazing.	R1 500
Pasture fertilisation and feed	The cost of nitrogen, phosphorus, and potassium (NPK) fertilizers or lime applied to cultivated, irrigated, or dryland planted pastures (e.g., ryegrass, clover, or lucerne) to boost dry matter yield.	R1 500
Animal Health costs	Vaccinations and parasite control, veterinary care and medicines	R408
Marketing, Freight & Genetics	Commission fees paid to auctioneers or agents, freight: transport costs for hauling cattle and operating spend on artificial insemination (genetics)	R617
On-Farm Labour (Salaries & Casual)	Fence repairs, pump maintenance, equipment servicing	R575
Fuel, Implements and machinery (repairs and maintenance)	Salaries of permanent staff and casual labour, which could include temporary workers	R750



Cost Component	Description	Estimated Annual Cost per unit
Utilities, rates and security	Electricity costs for operating borehole pumps, electric fencing, pressure pumps, and farm workshop facilities, property rates on agricultural land and security costs related to safeguarding livestock	R433
Total		R5 783

Note: The initial capital cost does not include land acquisition costs, which are considered at R100 000 per ha.

Sources: KwaZulu-Natal Department of Agriculture and Rural Development (2021); Red Meat Producers' Organisation (2025); Western Cape Department of Agriculture (2025b)

6.6.6 Annual capital provision

At some point during the assessment period, certain asset upgrades and/or replacements will be required. Rather than providing lump-sum capital when the upgrade/replacement cost is incurred, a capital reserve is created with a constant annual funding provision. The annual capital provision is determined by the asset lifespans shown in **Table 7**. Based on the capital (asset) items and their estimated useful lives, an annual capital provision of R58 979 is included to create a sink fund for asset upgrades and replacements over the 25-year assessment period.

Table 7: Annual capital provision for farming equipment and irrigation infrastructure

Capital Expenditure Category	Primary Drivers / Components Included	Estimated Useful Life	Annual capital provision
Genetic Reinvestment	3 Commercial bulls, plus select replacement heifers	3 - 5 years	R31 000
Fencing & Camp Upgrades	High-tensile wire, treated poles, solar energisers, gates	10 - 15 years	R4 423
Water Infrastructure	Borehole pumps, solar panels, HDPE piping, concrete troughs	8 - 12 Years	R4 750
Pasture Renovation	Cyclical over-seeding equipment hire, seed varieties (perennial)	5 - 7 Years	R10 000
Handling Facilities Maintenance	Upgrades to crush pens, neck clamps, scales, and loading ramps	15 - 20 Years	R1 806
Machinery & Fleet Renewal	Tractor depreciation reserve/slasher parts, farm bakkie	7 - 10 Years	R7 000
Total estimated annual capex			R58 979

Sources: Meissner et al. (2013); Western Cape Department of Agriculture (2025b)

6.6.7 Annual net cash flow over 25 years in real terms

Table 8 shows annual net cash flow over 25 years, including the establishment year (year 0), at both constant and real prices. At a carrying capacity of 300 head of cattle, the cash flow at constant prices is R1 207 52. The term "initial capital" is phased in over 5 years. Land cost is a significant factor affecting the profitability of the farming enterprise.

The Net Present Value (NPV) over the 25 years is -R14,0 million (or -R46 728 per head of cattle), based on a real risk-adjusted discount rate of 7,83% and an IRR of -0,2%. This implies that revenue or income is insufficient to cover total operating costs and capital requirements in real terms, primarily due to land costs (estimated at R55 000 /ha) (Property24 / AgriConnect (2026). Based on the operating expenditure and capital input costs, the selling price will need to increase to R66,70 per kg to achieve a zero NPV at a real discount rate of 7,83%. This represents a 53,5% increase per tonne on the applied (assumed) market price of R43,50 per kg.



Table 8: Annual net cash flow per ha for 25 years in constant terms and real terms

Year	Number of cattle	Revenue	Operating Cost	Capex provision	Initial capital	Net Cash flow	Real net cash flow
0	0	R0	R0	R0	(R19 426 846)	(R19 426 846)	(R19 426 846)
1	50	R498 588	(R288 206)	(R58 979)	(R1 461 146)	(R1 309 743)	(R1 214 621)
2	96	R957 289	(R553 355)	(R58 979)	(R1 272 658)	(R927 703)	(R797 845)
3	152	R1 520 694	(R879 028)	(R58 979)	(R1 486 645)	(R903 958)	(R720 962)
4	218	R2 178 830	(R1 259 460)	(R58 979)	(R1 858 306)	(R997 915)	(R738 095)
5	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R828 264
6	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R768 110
7	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R712 325
8	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R660 592
9	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R612 615
10	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R568 123
11	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R526 863
12	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R488 598
13	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R453 113
14	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R420 205
15	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R389 687
16	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R361 386
17	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R335 140
18	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R310 800
19	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R288 228
20	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R267 295
21	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R247 882
22	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R229 879
23	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R213 184
24	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R197 701
25	300	R3 001 500	(R1 735 000)	(R58 979)	R0	R1 207 521	R183 343

Developing dry pastures and rearing beef cattle are affected by the bare land value per hectare. Given the LSU's carrying capacity and only 257 ha available, the scale may not be sufficient to generate a positive NPV over 25 years. A trend of decreasing cattle grazing and feed production on the Hoogekraal Farms is shifting towards higher-value crops, such as macadamia and avocado orchards. The reduction in cattle grazing and feed production is not the result of a single event, but rather a strategic shift in land use combined with regional economic pressures.

Strategic crop diversification, associated with the expansion of orchards for permanent crops, is the primary driver of reduced grazing and the shift from livestock to high-value horticultural crops. In the George and Garden Route region, there is a clear trend away from extensive cattle grazing towards intensive irrigation blocks for avocado and macadamia orchards. Permanent crops such as macadamia and avocado offer significantly higher returns on investment than cattle grazing, which in the Southern Cape typically relies on rain-fed pastures (low-intensity) with a grazing capacity estimated at 0.8 to 1.0 LSU per ha (Agri Informatics, 2026). By converting grazing land to orchards, the farm can generate more revenue from a smaller footprint.



6.7 Model to estimate the agricultural viability for macadamia and avocado farming

To evaluate the agricultural viability of Hoogekraal Farms, the Malan Report (2026) identified macadamia and avocado farming as suitable enterprises. Both are classified as permanent, high-value perennial orchard crops and are used in the financial evaluation. Macadamia and avocado farming are widely regarded as high-investment, high-reward ventures. They are capital-intensive and carry significant financial risks, mainly because of the "time-to-harvest" lag and the complexity of their biological requirements. Profitability is thus mainly determined by relative production and price levels.

6.7.1 Assumptions for avocado farming

The soil suitability analysis reported by Malan (2026) indicates that avocado farming is suitable for moderately recommended, recommended and highly recommended soils on the Hoogekraal Farm. Given water constraints and the need for annual supplemental water, along with existing water rights, about 25 ha of avocado orchards can be established. Table 9 summarises the key assumptions used in the avocado farming analysis, and the items below unpack the inputs used in the cash flow modelling.

Table 9: Key assumptions adopted for assessing the production of avocado farming

Item	Value / Unit
No of ha	27
Expected lifetime of orchards (years)	25
Years to full bearing (maturity) (years)	7
Permanent labour /ha/year	R82 500
Management /ha/year	R27 500
Establishment costs of pastures (R/ha)	R417 500
Running costs of pastures (R/ha/year)	R140 000
Irrigation water costs (R/ha/year)	R6 000
Irrigation outlay/ha	R100 000
Equipment outlay/ha	R225 000
Outlay for bare land (with irrigation water) (R/ha) (George/Southern Cape)	R450 000

Source: Western Cape Department of Agriculture (2024b, 2025a)

6.7.2 Yield analysis

Revenue or income potential depends on the product's market price and yield per hectare (**Table 10**). By Year 7 and onwards, the trees should reach maturity and achieve peak bearing levels.

Table 10: Expected yields of avocado over the lifecycle to maturity

Year	Growth Stage	Estimated Yield (Tons/Ha)
Year 1	Establishment	0
Year 2	Vegetative	0
Year 3	First Commercial	3,5
Year 4	Expansion	7,5
Year 5	Semi-Mature	12,5
Year 6	Mature Bearing	17,5
Year 7+	Maturity / Peak	20

Sources: ABSA (2026); South African Avocado Growers Association (2025-2026); Western Cape Department of Agriculture (2024b, 2025a)



South African Avocado Growers' Association (SAAGA) Industry Census & ZZZ Technical Reports indicate 18 to 22 t/ha at peak from years 8 to 15. From years 16 to 18, yields plateau at roughly 14 to 16 t/ha. At this stage, the tree is no longer increasing its canopy volume, and light penetration could become an issue. During the declining years from Year 19 onwards, yields often drop to 10-12 t/ha.

6.7.3 Establishment costs

The estimated establishment cost for 1 ha of avocado farming is R417 500, plus bare land value and management/labour costs of R560 000. The total establishment cost per ha is estimated at R977 500 (**Table 11**).

Table 11: Establishment costs and set-up capital requirements per ha for avocado

Category	Estimated Cost (R/ha)
Land Preparation	R42 000
Tree Stock (Seedlings)	R60 000
Irrigation System	R100 000
Wind Protection	R50 000
Planting Labour & Materials	R25 000
Infrastructure & Security	R107 500
Equipment (Allocated)	R32 500
Sub-total	R417 500
Management and labour	R110 000
Bare land with irrigation water (George/Garden Route)	R450 000
Total	R977 500

Sources: Subtrop (2025); South African Avocado Growers' Association (2025); Western Cape Department of Agriculture (2024b, 2025a - adjusted for 2026)

6.7.4 Selling prices

George is considered a late-window premium and seasonal market destination, which helps obtain higher prices. **Table 12** presents estimated prices for different market segments, with a percentage split among export, local, and processing. We adopted a blended price, or what could be termed a weighted-average price, of R23 225 per tonne to model and assess the financial viability of avocado farming.

Table 12: Estimated price per tonne and percentage market split for avocado markets

Classification	Estimated Price (Per Ton)	Percentage Split
Export (Gross)	R31 500	60%
Local Fresh Market	R14 000	25%
Local Processing	R5 500	15%

Sources: Absa (2026); AgriMag (2026); Subtrop (2025); South African Avocado Growers' Association (2026)

6.7.5 Running costs

Running costs are generally referred to as variable costs and include various items as listed in **Table 13**, but normally exclude labour and management expenses. For modelling purposes, management and labour costs are included in running costs, which are collectively referred to as operating costs. Permanent labour costs are estimated at R82 500 and management costs at R27 500 per ha per annum.



Table 13: Breakdown of running cost components for avocado farming per ha at full maturity (year 7)

Cost Component ⁷	Estimated Annual Cost (R/ha)
Fertilisers and lime	R35 000
Pest and disease control	R39 200
Seasonal labour harvest/prune	R28 000
Fuel and electricity	R14 000
Repairs and maintenance	R11 200
Pollination	R5 600
Total variable costs	R133 000

Sources: Farmers Weekly Q1 2026; SAAGA (2025); Subtrop (February/March 2026); Western Cape Department of Agriculture (2024b, 2025a)

The total annual operating cost for avocado farming at maturity is R 211 500 per ha and is applied at constant rates throughout the assessment period. In addition, variable costs increase until trees mature and reach peak delivery.

Table 14 shows the ramp-up in variable costs over the first seven years of the lifecycle, up to maturity.

Table 14: Progression of variable costs for the first seven years of an avocado orchard per ha

Year	Stage	Average variable cost (R/ha)
1	Establishing	R18 000
2	Vegetative	R28 000
3	Transition	R45 000
4	First Fruit	R68 000
5	Semi-Mature	R108 000
6	Near-Maturity	R128 000
7	Full Maturity	R133 000

Source: SAAGA (2017)

6.7.6 Annual capital provision

At some point during the assessment period, certain upgrades and/or replacements of assets are required. Rather than providing lump-sum capital when upgrade/replacement funding is required, a capital reserve is created with a constant annual contribution. The annual capital provision is determined by the asset lifespans shown in **Table 15**.

Table 15: Annual capital provision for farming equipment and irrigation for avocado farming

Component	Annual Replacement Reserve (Rand/ha)		Useful life (years)
	Year 1-3	Year 4-25	
Juvenile tree replacement	R4 259		3
Infrastructure renewal	R2 222	R2 222	5
Machinery and equipment upgrades or replacement	R3 148	R3 148	12
	R9 630	R5 370	

Note: Juvenile replacement only occurs in Years 1 - 3

⁷ **Fertilizers and Lime:** In the George area, higher rainfall levels can lead to more rapid soil acidification and nutrient leaching, requiring higher lime and fertilizer inputs compared to drier regions.

Chemicals: The high humidity of the Garden Route increases the risk of fungal diseases (like *Phytophthora* root rot and *Cercospora* spot), necessitating more intensive chemical spray programs.

Bee Rental (4%): This is a standard but critical operational cost for George avocado orchards to ensure fruit set, typically factored into the WCDa's intensive orchard models.



6.7.7 Re-establishment cost and declining production

No provision is made for re-establishment costs. However, according to the South African Avocado Growers' Association (2017), the landmark study *Economic Aspects of Avocado Production: Orchard Replacement* highlights that new technology, including new rootstocks like Dusa or higher-density planting patterns, often makes it more profitable to clear and re-establish a 20-year-old orchard rather than maintain a declining one. In the George area, older trees also become increasingly difficult to protect from wind and fungal disease as their height makes effective spraying harder.

We provided a replacement-cost scenario but used declining capacity to demonstrate the impact of declining production, thereby addressing the resulting losses or, conversely, the opportunity cost of not replacing the orchard. Table 16 shows the applied yields.

Table 16: Yield changes in the life cycle of avocado orchards

Phase	Year Range	Yield (Tons/ha)	Description of Decline
Peak Production	Years 1 – 7	18 - 22	Trees at full canopy capacity with maximum "fruit-bearing wood"
Early Decline	Years 13 – 17	14 – 17	Light Attenuation: Inner branches begin to die back due to shading (crowding)
Structural Decline	Years 18 – 22	10 – 13	The "Spray Ceiling": Trees become too tall for effective chemical penetration
Economic Threshold	Years 23+	< 9	Replacement Trigger: Costs exceed the value of the declining yield

Sources: SAAGA Yearbooks (2017-2026), which pinpoint Year 17–18 as the point when the amortised value of a new orchard exceeds the current margin of an old one. Western Cape Department of Agriculture (2025a): Capital Renewal guidelines for the Western Cape provide the specific yield-drop benchmarks that banks use to approve agricultural loans for replanting. The replacement per ha is estimated at R251 500, and it is envisaged that the replacement of the 27 ha of trees would occur over a period of six years, or some 4,1 ha per annum, from years 20 to 25. This could be extended to address cash flow shortfalls.

We adopted the above guidance, assessed the impact on profitability per ha, and provided for orchard replacement over the last six years of the assessment period. Table 17 shows an extract of the financial model for years 18 to 25.

Table 17: Net cash flow in constant terms for years 18 to 25 of the assessment period

Year	Yield (t/ha)	Revenue (R/ha)	Operating Cost (R/ha)	Orchard replacement capital (R/ha)	Capital asset provision (R/ha)	Net Cashflow (R/ha)
18	14,00	R325 150	(R249 000)		(R5 370)	R70 780
19	14,00	R325 150	(R234 060)		(R5 370)	R85 720
20	14,00	R325 150	(R220 016)	(R251 500)	(R5 370)	(R151 737)
21	14,00	R325 150	(R206 815)	(R251 500)	(R5 370)	(R138 536)
22	14,00	R325 150	(R194 406)	(R251 500)	(R5 370)	(R126 127)
23	9,00	R209 025	(R178 854)	(R251 500)	(R5 370)	(R226 699)
24	9,00	R209 025	(R164 546)	(R251 500)	(R5 370)	(R212 391)
25	9,00	R209 025	(R151 382)	(R251 500)	(R5 370)	(R199 227)



6.7.8 Annual net cash flow per ha over 25 years

Table 18 shows the net cash flow per ha per annum over 25 years, including the establishment year (year 0), in constant terms. At a yield of 20 tonnes per ha, the net cash flow at constant prices is estimated at R210 130 per ha. A salient point from the feasibility analysis is that, from year 13, the yield begins to decline, which means operating costs would also decline slightly due to lower harvesting labour, bin, and transport costs. This decline in operating costs continues as the production yield and stated costs decline.

Table 18: Net cash flow per ha per annum for 25 years of avocado farming

Year	Yield (t/ha)	Revenue (R/ha)	Operating Cost (R/ha)	Initial & replacement Capex (R/ha)	Replacement Capital (R/ha)	Net Cashflow (R/ha)
0	0,00	R0	(R55 000)	(R977 500)	R0	(R1 032 500)
1	0,00	R0	(R134 000)		(R9 630)	(R143 630)
2	0,00	R0	(R144 000)		(R9 630)	(R153 630)
3	3,50	R81 288	(R161 000)		(R9 630)	(R89 342)
4	7,50	R174 188	(R184 000)		(R5 370)	(R15 183)
5	12,50	R290 313	(R224 000)		(R5 370)	R60 942
6	17,50	R406 438	(R244 000)		(R5 370)	R157 067
7	20,00	R464 500	(R249 000)		(R5 370)	R210 130
8	20,00	R464 500	(R249 000)		(R5 370)	R210 130
9	20,00	R464 500	(R249 000)		(R5 370)	R210 130
10	20,00	R464 500	(R249 000)		(R5 370)	R210 130
11	20,00	R464 500	(R249 000)		(R5 370)	R210 130
12	20,00	R464 500	(R249 000)		(R5 370)	R210 130
13	18,00	R418 050	(R249 000)		(R5 370)	R163 680
14	18,00	R418 050	(R249 000)		(R5 370)	R163 680
15	18,00	R418 050	(R249 000)		(R5 370)	R163 680
16	18,00	R418 050	(R249 000)		(R5 370)	R163 680
17	14,00	R325 150	(R249 000)		(R5 370)	R70 780
18	14,00	R325 150	(R249 000)		(R5 370)	R70 780
19	14,00	R325 150	(R234 060)		(R5 370)	R85 720
20	14,00	R325 150	(R220 016)	(R251 500)	(R5 370)	(R151 737)
21	14,00	R325 150	(R206 815)	(R251 500)	(R5 370)	(R138 536)
22	14,00	R325 150	(R194 406)	(R251 500)	(R5 370)	(R126 127)
23	9,00	R209 025	(R178 854)	(R251 500)	(R5 370)	(R226 699)
24	9,00	R209 025	(R164 546)	(R251 500)	(R5 370)	(R212 391)
25	9,00	R209 025	(R151 382)	(R251 500)	(R5 370)	(R199 227)

Table 19 shows the net cash flow per annum in constant terms for 27 ha of avocado orchards, subject to water rights and available supplemental water (after accounting for annual rainfall). The Net Present Value (NPV) over the 25 years is negative R6,5 million (or negative R239 118 per ha), based on the real risk-adjusted discount rate of 7,83%, yielding an IRR of 5,8%. This implies an inherent risk later in the trees' lifecycle due to declining yields in current terms.

To achieve an NPV of 0, the blended price of R23 225 per tonne will need to be adjusted to R24 993 per tonne, an increase of 7,6%. Given the costly and risky nature of the production at the enterprise in question, it is doubtful



whether acceptable output levels of more than 20 tonnes per ha will be achievable. Even with a shift towards higher-value crops such as avocado orchards, the inherent risks remain. It will take approximately 10 years to recoup the capital invested in operations, at which point net cash flow at constant prices becomes positive. This implies that investors would only begin to achieve a cash-flow return on investment from 12 years onwards.

Table 19: Net cash flow per annum for 25 years for avocado production on 25 ha in constant and real terms⁸

Year	Yield (tonnes)	Revenue	Operating Cost	Initial & replacement Capex	Replacement Capital	Net Cash flow	Real cash flow
0	0	R0	R0	(R26 392 500)	R0	(R26 392 500)	(R26 392 500)
1	0	R0	(R3 618 000)	R0	(R260 000)	(R3 878 000)	(R3 596 355)
2	0	R0	(R3 888 000)	R0	(R260 000)	(R4 148 000)	(R3 567 371)
3	95	R2 194 763	(R4 347 000)	R0	(R260 000)	(R2 412 238)	(R1 923 908)
4	203	R4 703 063	(R4 968 000)	R0	(R145 000)	(R409 938)	(R303 205)
5	338	R7 838 438	(R6 048 000)	R0	(R145 000)	R1 645 438	R1 128 640
6	473	R10 973 813	(R6 588 000)	R0	(R145 000)	R4 240 813	R2 697 601
7	540	R12 541 500	(R6 723 000)	R0	(R145 000)	R5 673 500	R3 346 836
8	540	R12 541 500	(R6 723 000)	R0	(R145 000)	R5 673 500	R3 103 768
9	540	R12 541 500	(R6 723 000)	R0	(R145 000)	R5 673 500	R2 878 353
10	540	R12 541 500	(R6 723 000)	R0	(R145 000)	R5 673 500	R2 669 309
11	540	R12 541 500	(R6 723 000)	R0	(R145 000)	R5 673 500	R2 475 447
12	540	R12 541 500	(R6 723 000)	R0	(R145 000)	R5 673 500	R2 295 664
13	486	R11 287 350	(R6 723 000)	R0	(R145 000)	R4 419 350	R1 658 328
14	486	R11 287 350	(R6 723 000)	R0	(R145 000)	R4 419 350	R1 537 890
15	486	R11 287 350	(R6 723 000)	R0	(R145 000)	R4 419 350	R1 426 199
16	486	R11 287 350	(R6 723 000)	R0	(R145 000)	R4 419 350	R1 322 619
17	378	R8 779 050	(R6 723 000)	R0	(R145 000)	R1 911 050	R530 400
18	378	R8 779 050	(R6 723 000)	R0	(R145 000)	R1 911 050	R491 879
19	378	R8 779 050	(R6 319 620)	R0	(R145 000)	R2 314 430	R552 440
20	378	R8 779 050	(R5 940 443)	(R1 046 240)	(R145 000)	R1 647 367	R364 658
21	378	R8 779 050	(R5 584 016)	(R1 046 240)	(R145 000)	R2 003 794	R411 342
22	378	R8 779 050	(R5 248 975)	(R1 046 240)	(R145 000)	R2 338 835	R445 251
23	243	R5 643 675	(R4 829 057)	(R1 046 240)	(R145 000)	(R376 622)	(R66 491)
24	243	R5 643 675	(R4 442 733)	(R1 046 240)	(R145 000)	R9 702	R1 589
25	243	R5 643 675	(R4 087 314)	(R1 046 240)	(R145 000)	R365 121	R55 438

6.8 Macadamia farming

6.8.1 Assumptions for macadamia farming

The soil analysis results reported by Malan (2026) indicate that macadamia farming is suitable for moderately recommended, recommended and highly recommended soils on the Hoogekraal Farms. Given water constraints, the need for annual supplemental water, and the confines of existing water rights, about 23 ha of macadamia orchards could be established. **Table 20** indicates the key assumptions used for the macadamia farming analysis, and the section below unpacks several to support the inputs used in the cash flow modelling.

⁸ In an agricultural context, constant prices refer to a specific fixed base year. Real prices are adjusted to account for inflation, reflecting purchasing power over time.



Table 20: Key assumptions adopted for assessing the production of macadamia farming

Item	Value / Unit
No of ha	25
Expected lifetime of orchard (years)	25
Years to full bearing (maturity) (years)	12
Permanent labour /ha/year	R52 500
Management /ha/year	R25 000
Establishment costs of macadamia orchard (R/ha)*	R394 800
Running costs of orchard (R/ha/year) maturity	R75 000
Irrigation water costs (R/ha)	R3 000
Irrigation outlay/ha	R65 000
Equipment outlay/ha	R175 000
Bare land outlay/ha (George/Southern Cape)	R450 000

Source: Western Cape Department of Agriculture, 2024b, 2025a

* Excludes fixed canopy netting structure and bare land value per ha

6.8.2 Yield analysis

Revenue or income potential depends on product price and yield per hectare. Research on macadamia yields, expressed as tonnes per ha per annum, indicates yields progress toward maturity, as shown in **Table 21**. SAMAC (Macadamias South Africa) industry statistics (2025/26)⁹ indicate 2.0 to 3,2 t/ha in the maturation years from year 8 to 12. From Year 12 to 25, a yield of 4 tonnes/ha is assumed to represent peak maturity.

Table 21: Yield estimates for macadamia over the lifecycle to maturity

Yield progression	Tree Age	Yield (t/ha)	Development Status	Yield (t/ha) applied in the model
Establishment	Year 1 – 4	0,0 – 0,3	Vegetative growth; focus on structural pruning.	Year 1-3 = 0 Year 4 = 0,3
Early Bearing	Year 5 – 7	0,8 – 1,8	First commercial crops; volume doubles annually.	1,3
Maturation	Year 8 – 11	2,0 – 3,2	Rapid growth as the canopy expands to fill the rows.	2,75
Peak Maturity	Year 12 – 25	3,5 – 4,5	Full production; maximum yield efficiency.	4,0

Sources: Macadamias South Africa (2025, 2026); Western Cape Department of Agriculture (2025a)

6.8.3 Establishment costs

The establishment cost for 1 ha of macadamia trees is estimated at R89 750, plus set-up capital of R240 000 (**Table 22**). The total establishment cost, inclusive of the bare land value and a fixed canopy netting structure, is estimated at R1 284 750 per ha. Note that the bare land value for farms of 10 ha to 50 ha ranges from R450 000 to R850 000 (Western Cape Department of Agriculture, 2026). These prices are for farms closer to George, and the value is affected by proximity to the N2. The value used is the average of the range to reflect the property's location and potential utilisation.

⁹ The t/ha figures for early bearing (Years 5–7) and maturation (Years 8–12) are based on their annual Tree Census and Crop Production reports, which track the performance of approximately 81 000 hectares of macadamia orchards across the country.



Table 22: Establishment costs and set-up capital requirements per ha

Category	Estimated Cost (R/ha)
Nursery Trees	R18 000
Soil Preparation	R47 500
Soil Amelioration	R52 500
Irrigation and material	R6 500
Pest and weed control	R4 000
Planting Labour	R4 000
Fuel repairs and maintenance	R4 500
Sub-total	R89 750
Irrigation and equipment	R240 000
Fixed crop shade structure	R305 000
Bare land George/Garden Route)	R450 000
Total	R1 284 800

Sources: SAAGA (2025); Subtrop (2025); Western Cape Department of Agriculture (2024b, 2025a)

6.8.4 Selling prices

The macadamia pricing environment for the 2026 production season offers several positive indicators for growers in the Southern Cape and George areas as the global market transitions away from the sharp volatility seen over the previous few years. **Table 23** presents estimated prices for different market segments, with a percentage split among Nut-In-Shell (NIS), Whole Kernels (Style 0/1), and Halves and Pieces. We adopted a blended price, or weighted-average price, of R134 950 per tonne for macadamia nuts to model and assess the profitability of macadamia farming.

Table 23: Estimated price per tonne and percentage based on product split

Classification	Estimated Price (Per Tonne)	Percentage Split
Nut-In-Shell (NIS)	R70 000	55%
Whole Kernels (Style 0/1)	R233 000	35%
Halves & Pieces	R149 000	10%

Sources: Botha (2026b); FreshPlaza (2026); Macadamias South Africa (2025, 2026); Western Cape Department of Agriculture (2025a)

6.8.5 Running costs

Running costs, generally referred to as variable costs, include the items listed in **Table 24**, but exclude labour and management expenditure. For the modelling, management and labour costs are included in the running costs, which are collectively referred to as operating costs. Permanent labour is estimated at R50 000 per ha and management costs at R21 500 per ha per year.

Table 24: Breakdown of components of running costs for macadamia per ha at full maturity

Cost Component	Estimated Annual Cost (R/ha)
Fertiliser and nutrition	R21 250
Pest and disease control	R18 500
Direct seasonal labour	R14 250
Electricity and irrigation	R8 750



Cost Component	Estimated Annual Cost (R/ha)
Fuel and vehicle maintenance	R7 500
Repairs and maintenance	R4 750
Total Variable Costs	R75 000
Labour and management	R77 500
Total operating costs	R152 500

Source: Macadamias South Africa (2025)

In addition, variable costs also ramp up until trees are mature and deliver peak harvests. **Table 25** shows the increase in variable costs over the first seven years of the lifecycle.

Table 25: Progression of variable costs for the first seven years of a macadamia orchard per ha

Year	Stage	Average variable cost (R/ha)
1	Juvenile	R20 000
2	Juvenile	R25 000
3	Juvenile	R31 500
4	Pre-Bearing	R43 000
5	Initial Bearing	R53 000
6	Bearing	R60 000
7	Mature	R75 000

Sources: Agribiz (2026); Department of Agriculture (2025); Macadamias South Africa (2026); Western Cape Department of Agriculture (2026)

6.8.6 Annual capital provision

At some point during the assessment period, certain upgrades and/or asset replacements will be required. Rather than providing for a lump-sum capital requirement when the upgrade/replacement is needed, a capital reserve or provision is created as a sink fund with a constant annual contribution over the 25-year assessment period. **Table 26** shows the annual capital provision, based on the assets' lifespans.

Table 26: Annual capital provision for farming equipment and irrigation infrastructure

Provision Item	Annual Reserve (R/ha/year)	Detail of item
Rolling stock	R12 500	Tractors, trailers, and sprayers (10 to 12-year life)
Processing fixed assets	R4 500	De-hushing lines, drying bins, and moisture meters
Irrigation and water	R6 000	Pumps, pipes, and automation hardware
Infrastructure/fencing	R2 500	Security, sheds, and road maintenance
Total Capital annual provision	R25 500	Total annual "Sinking Fund" requirement

Sources:

Macadamias South Africa (2025, 2026): These provide technical requirements and standard lifecycle expectations for equipment such as tractors, sprayers, and de-hushing lines (e.g., a 10–12-year life for rolling stock).

Western Cape Department of Agriculture (2025a): This source provides foundational enterprise budgets and capital replacement guides specific to the Southern Cape, used to calculate the R/ha/year reserves for infrastructure, irrigation, and fixed assets.

Agbiz (2026): Current pricing for machinery and irrigation hardware is updated using recent market analysis from institutions to ensure the "Sinking Fund" reflects the replacement costs in the 2026 economic environment.



6.8.7 Re-establishment cost and declining production of macadamia

No provision is made for re-establishment costs, as the assessment period is 25 years and no decline in yield is anticipated. Industry benchmarking by Macadamias South Africa (2025, 2026) indicates that tree maintenance occurs from Year 25 to 40, which slightly reduces yield to between 3 and 3,5 tonnes per ha due to light competition and tree height. From Year 40, senescence (biological ageing of the trees) commences, and yields could decline to less than 2,5 tonnes per ha, a trend that could continue if aggressive rejuvenation is employed.

6.8.8 Net cash flow per ha per annum over 25 years for macadamia

Table 27 indicates the net cash flow per ha per annum over 25 years, including the establishment year (year 0). At a yield of 4 tonnes per ha, which represents the yield at maturity, the net cash flow is estimated at R361 800 per ha. From Year 8, the project achieves an annual net positive cash flow. In year 15, the cumulative net cash flow turns positive in constant terms. This is the first year that investors will receive a payback on their capital.

Table 27: Net cash flow for macadamia farming per ha per annum over 25 years

Year	Yield (t/ha)	Revenue (R/t)	Operating Cost (R/ha)	Initial & replacement Capex (R/ha) p.a.	Net Cashflow (R/ha)
0	0,00	R0	(R77 500)	(R1 284 750)	(R1 362 250)
1	0,00	R0	(R102 500)	(R25 500)	(R128 000)
2	0,00	R0	(R109 000)	(R25 500)	(R134 500)
3	0,00	R0	(R120 500)	(R25 500)	(R146 000)
4	0,30	R40 485	(R130 500)	(R25 500)	(R115 515)
5	1,30	R175 435	(R137 500)	(R25 500)	R12 435
6	1,30	R175 435	(R152 500)	(R25 500)	(R2 565)
7	1,30	R175 435	(R152 500)	(R25 500)	(R2 565)
8	2,75	R371 113	(R152 500)	(R25 500)	R193 113
9	2,75	R371 113	(R152 500)	(R25 500)	R193 113
10	2,75	R371 113	(R152 500)	(R25 500)	R193 113
11	2,75	R371 113	(R152 500)	(R25 500)	R193 113
12	4,00	R539 800	(R152 500)	(R25 500)	R361 800
13	4,00	R539 800	(R152 500)	(R25 500)	R361 800
14	4,00	R539 800	(R152 500)	(R25 500)	R361 800
15	4,00	R539 800	(R152 500)	(R25 500)	R361 800
16	4,00	R539 800	(R152 500)	(R25 500)	R361 800
17	4,00	R539 800	(R152 500)	(R25 500)	R361 800
18	4,00	R539 800	(R152 500)	(R25 500)	R361 800
19	4,00	R539 800	(R152 500)	(R25 500)	R361 800
20	4,00	R539 800	(R152 500)	(R25 500)	R361 800
21	4,00	R539 800	(R152 500)	(R25 500)	R361 800
22	4,00	R539 800	(R152 500)	(R25 500)	R361 800
23	4,00	R539 800	(R152 500)	(R25 500)	R361 800
24	4,00	R539 800	(R152 500)	(R25 500)	R361 800
25	4,00	R539 800	(R152 500)	(R25 500)	R361 800



Table 28 shows the net cash flow per annum for the 27 ha of macadamia orchards, subject to water rights and to the availability of supplemental water (after accounting for annual rainfall). The Net Present Value (NPV) over 25 years is negative R2,5 million (or negative R100 118 per ha) at a real risk-adjusted discount rate of 7,83%, yielding an IRR of 7,4%. The analysis does not indicate a viable outcome, and even at a 7,83% risk level, an NPV greater than 1 cannot be achieved, indicating that the project is not financially viable at the level of risk investors are prepared to take. To achieve an NPV = 0, the blended price of R134 950 per tonne will need to be adjusted to R139 374 per tonne, an increase of 3,3%.

Table 28: Net cash flow per annum for 25 years for macadamia production on 25 ha in constant and real terms

Year	Yield (tonnes)	Revenue	Operating Cost	Initial & replacement Capex	Net Cashflow (nominal)	Real Net cash flow (current)
0	0,0	R0	(R1 937 500)	(R32 118 750)	(R34 056 250)	(R34 056 250)
1	0,0	R0	(R2 562 500)	(R637 500)	(R3 200 000)	(R2 967 596)
2	0,0	R0	(R2 725 000)	(R637 500)	(R3 362 500)	(R2 891 824)
3	0,0	R0	(R3 012 500)	(R637 500)	(R3 650 000)	(R2 911 100)
4	0,3	R1 012 125	(R3 262 500)	(R637 500)	(R2 887 875)	(R2 135 982)
5	1,3	R4 385 875	(R3 437 500)	(R637 500)	R310 875	R213 236
6	1,3	R4 385 875	(R3 812 500)	(R637 500)	(R64 125)	(R40 790)
7	1,3	R4 385 875	(R3 812 500)	(R637 500)	(R64 125)	(R37 828)
8	2,8	R9 277 813	(R3 812 500)	(R637 500)	R4 827 813	R2 641 123
9	2,8	R9 277 813	(R3 812 500)	(R637 500)	R4 827 813	R2 449 308
10	2,8	R9 277 813	(R3 812 500)	(R637 500)	R4 827 813	R2 271 424
11	2,8	R9 277 813	(R3 812 500)	(R637 500)	R4 827 813	R2 106 459
12	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R3 659 872
13	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R3 394 069
14	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R3 147 570
15	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R2 918 974
16	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R2 706 980
17	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R2 510 382
18	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R2 328 062
19	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R2 158 983
20	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R2 002 184
21	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R1 856 773
22	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R1 721 923
23	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R1 596 866
24	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R1 480 891
25	4,0	R13 495 000	(R3 812 500)	(R637 500)	R9 045 000	R1 373 340

Farming macadamias in the George region offers unique opportunities but carries specific risks. As of 2026, the industry has shifted from a "boom" phase to a period of strategic consolidation, making efficiency and risk management more critical than ever (Absa, 2026). The South African macadamia nut industry is almost entirely export-driven. A stronger Rand can reduce on-farm income by up to 15%, even if global dollar prices remain stable (Botha, 2026a).

Changes in US tariffs (fluctuating between 10% and 15%) and the possible phase-out of the AGOA agreement create uncertainty for "Style 4" kernels, and rising costs for fertiliser, fuel, and specialised labour (pruning and harvesting)



continue to squeeze margins, especially for farms in "marginal" production areas. George and the broader Southern Cape are often considered "marginal" or non-traditional production areas compared to the core subtropical hubs like Limpopo, Mpumalanga, and KwaZulu-Natal. While the industry in George is growing, it faces specific regional constraints that differ from the "ideal" subtropical conditions found in the north. According to Macadamias South Africa (2024), the Western Cape accounts for 0,9% of the macadamia market (Botha, 2026a; FreshPlaza, 2026; Mundus Agri, 2026).

6.9 Conclusion

Pastures for grazing were, and to some extent still are, the historical farming enterprise of the Hoogekraal Farms. However, cattle grazing and feed production are declining in favour of higher-value crops such as avocado and macadamia. According to Malan (2026), these two crops could be considered for cultivation on 41,8% of the soils on the Hoogekraal Farms (all else being equal).

Strategic Crop Diversification (Orchard Expansion) is the primary driver of the reduction in grazing, as it reflects the transition from livestock to high-value horticultural crops. In the George and Garden Route region, there is a clear trend away from extensive cattle grazing towards intensive irrigation blocks for avocado and macadamia orchards. Permanent crops such as macadamia and avocado offer significantly higher returns on investment than cattle grazing, which in the Southern Cape typically relies on rain-fed pastures (low-intensity) with a grazing capacity estimated at 0.8 to 1.0 LSU per ha (Agri Informatics, 2026). By converting grazing land to orchards, the farm can generate more revenue from a smaller footprint.

The agricultural viability of avocados and macadamia nuts is assessed over a 25-year period. The financial viability analyses indicate that, given the assumptions, avocado and macadamia production will be under pressure to achieve acceptable profit levels (refer to **Tables 19** and **28**) if scale cannot be achieved.

The financial analysis confirms that the inherent agricultural viability of farming on the Hoogekraal land is limited by constrained irrigation capacity (supplemental water requirements), rising input costs, and other external factors, including foreign exchange fluctuations, given that large portions of the harvest are exported. Even assuming maximum historical land use for dryland pasture and livestock, the projected returns are insufficient to meet the definition of an economically viable and sustainable agricultural operation, with a negative NPV and a sub-optimal IRR over 25 years.

Farming avocados and macadamia with a more focused, capital-intensive strategy, concentrating production on higher-potential soils, would allow only a small cultivated footprint because of water constraints and the assumption that future returns will take time to realise. Both the avocado and macadamia farming models show negative NPV and a modest IRR; however, they perform better on a smaller agricultural footprint than the historic scenario of dryland pastures and livestock.

In comparative terms, historic farming (cattle) and farming of higher-value crops (avocados and macadamia) do not materially diminish agricultural output or the area's regional economic contribution relative to the area's realistic productive potential and should therefore not negatively impact food security or agricultural production in the area. Apart from retaining the land's agricultural capacity, the impact should be considered against the fact that none of the current farm units constitutes an economically viable and sustainable farming entity.

If one assumes that only 25 ha of avocado and 23 ha of macadamia orchards are possible, irrespective of the profitability of the farming enterprise, it would still be possible to reconfigure the remaining agricultural portion (excluding the conservation portion), resulting in a net 285 ha available for reconfiguration based on the avocado footprint and 287 ha based on the macadamia footprint. If the net 290 ha (net of the avocado footprint) and 292 ha (net of the macadamia footprint) are divided by 5 ha (the average envisaged size of the small-scale farming units), the envisaged number of 57 units would still be achieved (all else being equal). This may imply that avocado or macadamia orchards of up to 25 ha could still be included in the proposed reconfiguration of the property without reducing the number of small-scale agricultural units. As mentioned, a "co-operative"/out-grower model could be considered, with orchards located on the most suitable small-scale farms (soil and access to water), while the rest maintain dryland pastures and/or low-intensity vegetables or fruit trees for their own use.



7 SOCIO-ECONOMIC COST-BENEFIT ANALYSIS

7.1 Introduction

The aim of this Socio-Economic Cost-Benefit Analysis is to assess the proposal to reconfigure the existing Hoogekraal agricultural footprint (for which consent for consolidation and subdivision was granted in 2021 by the Department of Agriculture, Land Reform and Rural Development) (hereafter referred to as the Reconfiguration Proposal), against the continued use of the property for grazing and livestock farming, or the introduction and cultivation of high-value crops such as avocados and macadamia (noting the constraints of irrigation water, wind and other factors). This section should be read with the Agricultural Viability Analysis (see **Section 6**) and the Agriculture Agro-Ecosystem Assessment (Malan, 2026), which includes the Soil Suitability Analysis prepared by Schloms and Lambrechts (2005).

The Reconfiguration Proposal entails subdividing 529 ha into 57 small-scale agricultural farms, each at least 5 ha, and 24 conservation parcels, resulting in 81 subdivided freehold properties. Notably, there is no change in land use under the proposed Reconfiguration. The proposal ensures the properties remain agricultural, while owners of portions sold on a freehold basis can establish a farming enterprise on a 4,5-ha portion of the farm unit, with a maximum hard-surface footprint of 0,5 ha for a dwelling and other supporting infrastructure. The farming enterprise could involve dryland (rain-fed) pastures and livestock farming, or high-value crops such as avocados or macadamias. Based on their water requirements, these high-value (irrigated) crops would be restricted to 25 ha of avocados, or 23 ha of macadamias, or a mixture of these that doesn't exceed 24 ha. The owners may also consider other crops, such as vegetables.

The objectives of the Socio-Economic Cost-Benefit Analysis are as follows:

- To develop a socio-economic cost-benefit model to estimate the impacts associated with the construction of dwellings and envisaged farming activities on each reconfigured land parcel.
- To use the Agricultural Viability Analysis (see **Section 6**) to provide the necessary input to offset against the benefits associated with farming on the small-scale farming units and conservation of the conservation properties.
- To quantify the socio-economic, monetary and fiscal benefits arising from the proposed reconfiguration, including the determination of property rates associated with the development of a residential unit on the small-scale farming units and conservation properties, and the treatment of farming or conservation activities on the remainder as agriculture for the rates base.
- To assess, on a like-for-like basis, whether a net benefit is achieved by reconfiguring the Hoogekraal approved subdivision, rather than using the land for pastures and livestock farming or for avocado or macadamia production.

7.2 Methodology

This Socio-Economic Cost-Benefit Analysis deviates slightly from the traditional cost-benefit analysis, which aims to determine whether costs exceed benefits, or *vice versa*, in current terms over a predetermined period, using an appropriate discount rate for a single project. The cost-benefit methodology illustrated in **Figure 20** compares dryland farming pastures and livestock, or avocado or macadamia nuts, with the Reconfiguration Proposal to determine whether a net benefit or cost would accrue. In this instance, the Reconfiguration Proposal is considered the "benefit," and the "cost" relates to farming either dryland pastures and livestock or avocados or macadamias.

A Socio-Economic Cost-Benefit Analysis is an equation that balances costs on one side and benefits on the other. One major challenge in a cost-benefit analysis is determining what constitutes a cost or a benefit. Once the quantifiable costs and benefits are categorised, all figures are converted to equivalent annual Rand amounts, the assessment period is determined, and a discount rate is applied to convert constant net cash flows (costs) and benefits into current terms.

We have developed three scenarios to assess whether the Reconfiguration Proposal (5-ha farms with agricultural activity permissible on 4,5 ha) would deliver a net benefit when compared to farming with pastures and livestock or high-value crops such as avocados or macadamia (i.e. without the Reconfiguration):

- **Scenario 1:** A reconfiguration of 529 ha to represent 57 small-scale farming units and 24 conservation parcels, as opposed to 257,0 ha of dryland pasture and livestock production.
- **Scenario 2:** A reconfiguration of 529 ha to represent 57 small-scale farming units and 24 conservation parcels as opposed to 25 ha of potential avocado orchards (constrained due to irrigation requirements).
- **Scenario 3:** A reconfiguration of 529 ha to represent 57 small-scale farming units and 24 conservation parcels as opposed to 23 ha of potential macadamia farming (constrained due to irrigation requirements).

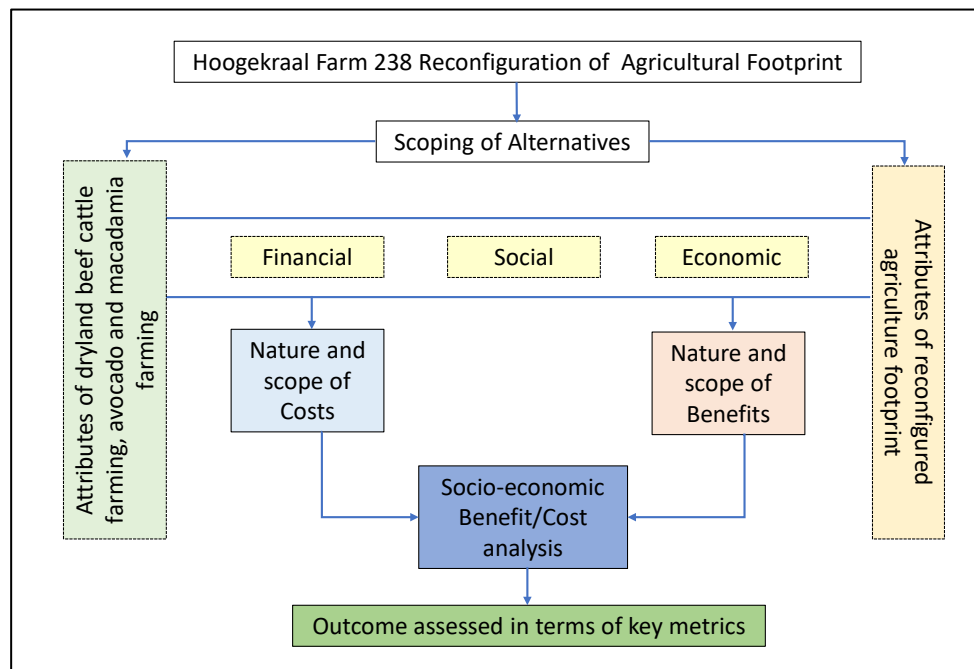


Figure 20: Methodology for a Socio-Economic Cost-Benefit Analysis of three scenarios

Source: Multi-Purpose Business Solutions (2026)

This Socio-Economic Cost-Benefit Analysis distinguishes two approaches of presenting the results, rather than a single blended figure.

The first is a **Micro cost-benefit approach**. This decision test compares the capital expenditure required for the Reconfiguration Proposal with the recurring economic income the reconfigured land use generates once operational (farming and conservation activities on the small-scale units), with each discounted at the same rate. This approach excludes economic income generated during construction because that income is produced by the capital expenditure being tested as a cost. Counting the same amount as both a cost and a benefit would overstate the case for the Reconfiguration Proposal.

The second is a broader **Macroeconomic impact approach**. This adds the economic income generated during construction, and the induced effects of household spending, to the recurring operational income, and compares the total to the capital expenditure. It is retained because it reflects the total economic and social contribution of the Reconfiguration Proposal, and because construction and induced effects are a legitimate part of that contribution. It is not, however, a benefit-cost decision test in the strict sense, because it counts the capital expenditure as a cost while simultaneously counting the value that same capital expenditure produces as a benefit.

Both approaches are presented for each of the three scenarios in **Section 7.9**, together with a reconciliation of the two, so the reader can see what each answers and is not left to infer which figure is decision-relevant.



7.3 Clarification of cost-benefit principles

It is necessary to note that the following items do not form part of a Socio-Economic Cost-Benefit Analysis:

- **Sunk costs** are irrecoverable cash outlays incurred before the project is assessed and are therefore excluded; only present and future costs and benefits are assessed. For instance, process-related fees and any past farming costs are sunk costs and are excluded.
- **Depreciation** is not a cash item and relates to cash expenditure on capital acquisitions in previous periods. Depreciation on capital items (assets) is also excluded from a cost-benefit analysis, as the basis for cost-benefit analysis is cash, not accruals.
- **Financing charges** involve transferring money from the borrower to the lender and do not represent the actual consumption of resources. Actual resource costs (materials, labour, land, etc.) are important, and the benefits produced stem from the utilisation of resources, not from how the capital requirement is financed.

The converse of what is stated above is that any change to the status quo (i.e. the Reconfiguration Proposal) results in a benefit or a cost. This means that capital expenditure and operating costs are incurred to achieve future benefits (which may include savings) and are expressed in current or real terms.

7.3.1 Benefits

The benefit is the reconfiguration of the existing DALRRD approval for subdivision into farming units of varying sizes, with a minimum size of 5 ha. The Reconfiguration Proposal has social, economic, fiscal, and monetary impacts. Social benefits arise from temporary employment opportunities and associated spending during the construction of dwellings, and from permanent employment associated with the envisaged agriculture that owners of the small-scale farming units would introduce on the 4,5-ha footprint. Various small businesses, such as garden services, plumbers, electricians, and general handymen, would periodically benefit from services required by residents and by the commercial and social components. To be included in the Socio-Economic Cost-Benefit Analysis, benefits must be quantified. If insufficient information prevents quantification, the benefits are classified as intangible and excluded from the analysis.

Property rates accruing to the George Municipality are treated differently from the other benefits. A property rate is a transfer from a ratepayer to the Municipality rather than new value created by the Reconfiguration Proposal. Fiscal and monetary revenue benefits are therefore shown as a stand-alone item alongside the results in **Section 7.9**, and are excluded from the net benefit calculated under the Micro cost-benefit approach described in **Section 7.2**, though they remain part of the broader Macroeconomic impact approach.

7.3.2 Costs

The cost included in this Socio-Economic Cost-Benefit Analysis refers to the farming “offset”, i.e., the amount that reduces the impact (positive benefit) of the Reconfiguration Proposal. In this case, the reference would be a 257-ha farming footprint, taking into account soil suitability and irrigation constraints (all else being equal). This entails consideration of “historic” agricultural activity (pastures for grazing and livestock), or the introduction of avocado or macadamia orchards.

The premise for assessing the cost side of the cost-benefit equation is to understand the potential of farming, expressed in constant terms, as the net cash flow derived from revenue, operating costs, and capital expenditure. An economic-financial perspective on the production potential of dryland pasture and livestock (historically), avocados or macadamia provides annual information over a 25-year period.

7.3.3 Intangible impacts

Intangible costs or benefits cannot be measured in monetary terms. Although these non-quantified items cannot be included in a Socio-Economic Cost-Benefit Analysis, they should be stated and contextualised. The following, which is not an exhaustive list, are considered intangible (non-quantifiable) impacts:

- Monetary benefit accruing to the local Municipality in terms of the sale of electricity and water.



- Transitioning from large-scale monoculture to smaller, diversified agricultural units often creates micro-habitats, reduces chemical runoff, and improves soil health. This improves natural pest control, pollination, and water retention, enhancing ecosystem services and biodiversity.
- Smaller, specialised units encourage the adoption of high-value, niche crops and advanced farming techniques. This creates a hub for agricultural experimentation and skills development, supporting knowledge transfer and innovation.
- Retaining the rural landscape character through the Reconfiguration Proposal preserves the visual and cultural heritage of an area, which can have indirect positive impacts on local agritourism.

All these non-quantified benefits would accrue once the reconfiguration is complete and owners begin farming. Therefore, the fact that these benefits are non-quantifiable does not mean there is no subsequent impact once small-scale farms become operational.

Various assumptions underpin the calculation of benefits and costs. These assumptions need to be credible and realistic, as they affect the outcome when costs are offset against benefits. The following section sets out the assumptions used to determine the benefits and costs.

7.4 Limitations of the assessment

Any assignment presents challenges, particularly the need for data and information to make informed decisions and develop defensible models. It is necessary to state the limitations in relation to the envisaged objectives and potential outcomes. The following limitations were noted:

- Not all benefits and costs are quantifiable, and only those that can be quantified are included in the socio-economic cost-benefit model. The analysis notes non-quantifiable or intangible benefits and costs but does not include them in the Net Present Value (NPV) calculation.
- Estimates of other/additional costs of a capital and/or operational nature are currently unknown; they may arise and/or require adjustment due to the long timeframe considered for the analysis.
- The nature of farming is unknown, as is the nature of the input, i.e. whether a low-, moderate- or high-end farming enterprise will be introduced and the nature of the farming (e.g. avocado, macadamia, fruit orchards, vegetables, dryland (rain-fed) pastures and livestock, etc.).
- Revenue accruing to the George Municipality from the sale of electricity and water depends on the tariff in force at the time and on the occupancy or take-up of the 81 properties.
- Annual escalation rates, where applicable, are held constant for an assessment of agriculture over the term to estimate future benefits and costs, whereas capital expenditure for the construction of the permissible dwellings and hard surfaces is escalated by CPI, which is unknown over time.
- It is not possible to assess the potential downside or upside risk with any degree of accuracy in relation to the envisaged returns that may accrue to the developer. Notwithstanding, we have considered the nature and scope of the project and current market trends when determining the introduction of services, the sell-out curve for farming units, the construction of dwellings on small farms and conservation parcels, and the commencement of farming activity.

7.5 Premise and Assumptions for Socio-Economic Cost-Benefit Analysis

A Socio-Economic Cost-Benefit Analysis is forward-looking, needs to be realistic and requires credible assumptions. The information derived from research, specialist input and other sources is believed to be reliable, but no representation or warranty, express or implied, is made as to its accuracy, completeness or correctness. The assumptions are made on the basis that all other things are equal (*ceteris paribus*).



A Socio-Economic Cost-Benefit Analysis aims to determine the Net Present Value (NPV) of future benefits and costs. This requires using a discount rate to convert future annual benefits and costs into present value. The discount rate applied is a nominal interest rate adjusted for inflation and a risk premium. By way of explanation, the proposed reconfiguration and development of small-scale agricultural farms and conservation land parcels over 25 years (benefit) results in a positive NPV if “historical” farming with pastures and livestock, or with high-value crops such as avocados or macadamia (referred to as the three crops and considered as “cost”), does not yield a value greater than the benefit. A negative NPV for farming with any of the three crops is treated as a saving and therefore added back, rather than offset against the benefit (i.e., the Reconfiguration Proposal). The premise is that losses from farming any of the three crops impose an opportunity cost, implying that the funds required to cover those losses could be used for other purposes, such as funding the infrastructure for the Reconfiguration Proposal. Opportunity cost is an economic term that refers to the value of the next-best alternative forgone when making a choice. Therefore, the negative NPV of farming operations associated with either of the three crops is added back as a “saving”, thereby enhancing the benefit resulting from the Reconfiguration Proposal.

7.5.1 Assumptions to prepare financial models used for the cost-benefit analysis

7.5.1.1 Infrastructure assumptions

Jodan Construction (2026) prepared a Bill of Quantities (BoQ) with cost items for the infrastructure requirements associated with the Reconfiguration Proposal for Matla Quantity Surveyors. This BoQ covers internal works and external civil bulk upgrades. The infrastructure cost forms part of the capital expenditure requirement and is apportioned to the three core development components (workers' village, small-scale agricultural units and conservation parcels) as follows:

Farmworker village	2%
Agri small farms	69%
Nature conservation area	29%

It is also assumed that the infrastructure will be introduced over three years, with the village infrastructure introduced in Year 0. The Town Planning Application (Marika Vreken, 2026) indicates that the farm worker village needs to be completed before embarking on the small-scale agriculture farms and conservation parcels. This will complete the relocation and enable the introduction of the Reconfiguration Proposal. The allocation of infrastructure to the agriculture and conservation footprint over the three years is assumed as follows:

Percentage infrastructure	Year 1	Year 2	Year 3
Agri small farms	30%	40%	30%
Nature conservation area	20%	50%	30%

7.5.1.2 Curve for sell-out, dwelling construction development of freehold portions

The financial modelling used to determine annual expenditure, and therefore the socio-economic impact and cost-benefit outcomes, depends on assumed projections of sales, the construction of dwellings, other structures, and infrastructure, the establishment of farming activities on small-scale agricultural farms, and the introduction of trails and low-impact amenities on the conservation parcels. Shared costs may be incurred between adjacent landowners of conservation parcels. For this analysis, we assume each landowner will introduce their own trails and low-impact amenities and that an average cost applies. The assumed sale of properties is spread over 10 years, with construction of dwellings and other top and infrastructure following a 1-year lag, while the establishment of agriculture and provision of amenities on the conservation parcels occur two years after the sale. Sales follow a normal distribution, with the annual allocation presented in **Table 29**.



Table 29: Sell-out curve, timing for construction of different project components

Sell-out curve over 10 years	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Number of units	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Agriculture															
Sell	100%	2%	3%	5%	10%	15%	20%	18%	12%	9%	6%				
Build	100%		2%	3%	5%	10%	15%	20%	18%	12%	9%	6%			
Unit (sell)	57	1	2	3	6	9	11	10	7	5	3	0			
Units (build)		0	1	2	3	6	9	11	10	7	5	3			
Establish agriculture				1	3	5	5	4	4	7	5	4	5	5	4
Conservation															
Sell	100%	2%	3%	5%	10%	15%	20%	18%	12%	9%	6%				
Build	100%		2%	3%	5%	10%	15%	20%	18%	12%	9%	6%			
Unit (sell)	24	0	1	1	2	4	5	4	3	2	1	0			
Units (build)			0	1	1	2	4	5	4	3	2	1			
Establish lifestyle				0	1	1	2	4	5	4	3	2	1		
Village	100%		50%	50%											
Build	110		55	55											

7.5.1.3 Financial models for farming

Farming with pastures and livestock, or with avocados or macadamias, is based on the Agricultural Viability Analysis provided in **Section 6**. The annual net cash flow in constant terms is incorporated into the socio-economic cost-benefit model for each crop. The intention is not to highlight each assumption applied in the Agricultural Viability Analysis, but to focus on the primary categories of assumptions:

- **Capital** refers to establishment costs, irrigation, equipment, farm buildings and homesteads, and the value of bare land. A provision for asset upgrades and replacement is made annually, rather than providing funding as a lump-sum capital amount in the year the expenditure is required.
- **Revenue** for the three crops is based on the following extent:
 - 257 ha for dryland pasture and livestock
 - 25 ha for Avocado production (limited by irrigation water)
 - 23 ha for Macadamia production (limited by irrigation water)

An outgrower model is proposed to enable the development of a variable farming unit (see **Section 6**).

- **Operating costs, management and labour costs** include management, labour and running costs and are applied to farming with either of the three crops.
- **Assumptions to determine property rates for dwellings and agriculture:**
 - Property rate tariffs determined by the George Municipality for agriculture (2025/2026)
 - Property rates are applied per annum, indicated at nominal prices reflecting a 4% annual increase.
 - Bare land value is applied as follows:
 - R1 650 000/ha is applied to the 0,5-ha representing the hard surfaces (including the dwelling(s) and residential property rates apply
 - Property rates for agriculture are determined based on the following bare land value:
 - R100 000/ha for dryland pasture and livestock
 - R650 000/ha for macadamia farming
 - R450 000/ha for avocado farming
- The estimated annual escalation in value, which is unknown, is aligned with the increase in the annual property rates.



7.5.1.4 Development of the farming units (excluding agricultural portion)

As stated previously, the 5-ha small-scale farms have a permissible hard-surface footprint of 5 000 m², with the remainder used for agricultural activities. The following assumptions are used to determine the breakdown of the allocated footprints and to derive the size of the dwellings:

Development footprint:

Hardened surface (m ²)		5 000
Top structures:	Farmhouse	650
	Farm Manager's House	350
	Garage and outbuildings	1 500
	Driveways and yard paving	2 500

The average house size is derived by deducting the farm manager's dwelling, garage, outbuildings, driveways, and yard paving from the permissible hard service footprint. These figures are estimates, and each owner will tailor development within their 5 000 m² footprint to suit their lifestyle. Construction cost rates per m² are sourced from AECOM, as stated in the Rode Report (2025:4). The BER Escalation Building Cost Index is used to project per-m² construction cost rates for the envisaged construction period.

7.5.1.5 Small-scale agriculture within an irrigation water constraint¹⁰

The same water rights available for conventional farming also apply to small-scale agriculture. The 100 000 m³ of water rights indicated in the Malan (2026) report is divided equally among the 57 small-scale farming units, which translates to 1 754 m³ per annum. The question then is what could be cultivated within the constraints of an average rainfall of about 700 mm per annum and the stated water allocation.

With an average annual rainfall of 700 mm in the George area, the area is considered "sub-humid," typical of the Garden Route. However, the supplementary water allocation of 1 754 m³ per annum is equivalent to only 36,5 mm of additional "rainfall". In this environment, rain-fed (dryland) farming for small-scale farming units is likely to be viable, with the supplementary water used exclusively as an "insurance policy" for high-value micro-blocks. Several options/models provide guidance on selecting crops for farming.

A "Focused High-Value" Model aims to provide full irrigation to a very small portion of the footprint. For instance, macadamias or avocados could be cultivated on 0,4 to 0,5 ha. A mature orchard in George requires about 3 500 m³ to 4 500 m³/ha of irrigation to supplement the 700 mm annual rainfall (refer to **Section 6**). It would be possible to maintain about 0,4 ha (about 120 to 160 trees) at full production levels with a 1 754 m³ irrigation water allocation.

Dryland (rain-fed) pasture and livestock farming (e.g. beef cattle) would be suitable if the small-scale farmer's objective is livestock or land maintenance. Livestock, such as beef cattle, are considered units that cannot be used for high-value crops.

Small, high-value crops such as avocados and macadamia are likely suitable for farming. We identified three possible options for 57 agricultural units and apportioned uptake based on water constraints, crop requirements and the previous analysis. Other fruit orchards may also be applicable, but to demonstrate the socio-economic impact, the selected crops are a fair representation of what farming may include. Note, this assumes that all 57 farms participate, but only 24 ha of avocado or Macadamia can be irrigated based on the available water rights.

Avocado	5%
Macadamia	5%
Dryland (rain-fed) pastures and livestock	89%
	100%

¹⁰ Department of Agriculture, Forestry and Fisheries (2020); Fereres and Connor (2012); Gush and Taylor (2014); Raath (2012); Water Research Commission (2022)



Farming activities will not commence in the same year. We used a 13-year timeframe and split the farming enterprise across agricultural activity types. A 2-year lag is applied from the date of sale to determine the year in which the establishment costs associated with the agricultural and conservation parcels are incurred, after which maintenance commences.

	Units	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Total	57	1	3	5	5	4	4	7	5	4	5	5	4	5
Avocado	3	1		1	1									
Macadamia	3		1	1	1									
Dryland pasture (rain-fed) & livestock	51		2	3	3	4	4	7	5	4	5	5	4	5

7.6 Implementing an Outgrower model after sub-division

Regardless of whether farming is considered a lifestyle, and to demonstrate the viability of the farming unit, we propose establishing an outgrower organisation (often synonymous with contract farming). Individual small-scale farming units are unlikely to be viable except for lifestyle purposes. However, a collective approach could be considered to demonstrate that the farming units, collectively, could be viable.

The proposal is a structured partnership between a commercial company (which the owners may establish themselves) and a network of independent small-scale farmers (Eaton and Shepherd, 2001). The structure mitigates risk for both parties: the company secures a stable supply of high-quality produce without owning all the land, while farmers gain access to technical expertise, inputs, and a guaranteed market. The stakeholders are the following core participants

- **The Integrator**, which may be a buyer and/or a processor, is a private company with a processing plant (e.g. a macadamia processing facility). They provide the "pull" factor by guaranteeing to buy the crop at a pre-agreed price or according to a formula.
- **The Outgrowers** are farmers who are independent landowners who provide the labour and land. They are contractually bound to follow specific production protocols set by the integrator.

Given the nature of the proposed farming with high-value crops, i.e., avocados and macadamia, the structure is a centralised, pure buyer-driven model in which the company owns no land but manages farmers identified through an analysis of the 57 small-scale farming units that produce these crops.

We demonstrate that the risk independently borne by each small-scale farmer, arising from high establishment and running costs, is mitigated through offtake agreements that farmers could collectively establish, thereby enhancing the value chain. In addition, substantial savings in establishment capital costs could be achieved, for example, by using shared equipment to serve each small-scale farm. Labour benefits would also accrue.

The functional components of a well-structured outgrower organisation include technical support to ensure farmers' compliance with organic standards, the correct application of fertilisers and pesticides, and accurate yield forecasting to plan processing schedules. In addition, input supply and credit linkages are provided, offering liquidity often lacking and acting as a credit vehicle (e.g. provision of trees, fertilisers, and equipment upfront in the form of an "in-kind loan" or a clawback mechanism, where the costs of the inputs are deducted from the farmer's final payout at harvest).

A proposal is to split avocado and macadamia cultivation; a group structure is proposed, with one centralised outgrower organisation comprising two legs: one for avocados and one for macadamia. This provides a shared-services outcome, dealing with both crops under one umbrella. The pastures and livestock could form an additional arm within the outgrower model.



7.6.1.1 Rationale for the outgrower model

A farming operation needs a certain scale to be viable and ultimately feasible. Regarding the Reconfiguration Proposal, it is necessary to determine the minimum size of an avocado and macadamia orchard to be considered viable. Research provides some indication of whether the approach of considering 12 ha of avocados and 12 ha of macadamia (aligned with the maximum number of ha, about 24 ha, for either crop (see **Section 6**) is reasonable.

Avocado farming

In the George and broader Garden Route region, determining the minimum feasible size for a commercial avocado orchard requires assessing operational and logistical viability, as well as the household's economic survival. George is a late-maturing production zone that offers a distinct market-window advantage. However, high establishment costs and specific machinery requirements would guide the scale thresholds.

For an independent, standalone commercial venture, 5-10 ha is widely considered the absolute operational minimum, though this depends on whether it is a fully commercial export venture or a diversified or part-time operation¹¹. For instance, utilisation of machinery or equipment is not financially justified on footprints of less than 5 ha. On smaller footprints, this expensive capital expenditure is idle most of the year, resulting in a declining return on investment. The same rationale of scale applies to logistics.

Although the agricultural viability of a farming unit is key under the PADALA legislation, a part-time or intensive smallholding of 2–3 ha would require an orchard to be considered a high-value diversification block on an existing farm, leveraging shared tractors, labour, and water infrastructure. Tree spacing would require high-density layouts, with planting up to 800 trees per ha, and reliance on manual labour or contracted services for spraying and harvesting to keep fixed overheads within acceptable bounds.

Macadamia farming

In the George and Garden Route area, research indicates that a financially and operationally feasible standalone commercial macadamia orchard would be 10 to 15 ha¹². While macadamias share many climatic similarities with avocados, the unique harvesting, sorting, and drying requirements necessitate a larger minimum footprint to achieve profitability.

Macadamia nuts are picked directly from the tree and sent to a packhouse for immediate, specialised on-farm processing before entering other elements of the value chain. This post-harvest processing creates a high "capital expenditure floor" that requires scale to justify. On a small parcel of 2-3 ha, the fixed overhead cost of the processing infrastructure per kilogram of nuts significantly reduces net margins. If the orchard is added as a high-value diversification block to an existing farm that already owns tractors and spray infrastructure, the threshold drops to 5 ha. A minimum of 10 ha is required to generate the tonnage needed to amortise this equipment.

For farming purposes, an avocado and macadamia footprint could fit within the 4,5 ha of a small farm, but the large capital outlay would require consolidation to recoup the investment. The outgrower option provides an opportunity to overcome the limitations outlined above and achieve the required economies of scale. It addresses the viability of the farming unit and enables the crops to be sold commercially.

7.7 Assumptions

7.7.1 Farming the small-scale farms

The underlying assumptions for small-scale farming are based on a split among avocados, macadamia, and livestock pastures. The establishment and operating costs for avocados, macadamia and pastures with livestock are provided below.

Avocado orchards (12 ha)

Introducing avocado orchards covering 12 ha within the ambit of the small-scale farms would require 2,7 of the 4,5-

¹¹ Franco Sánchez (2018)

¹² Western Cape Department of Agriculture (2024b); Macadamias South Africa (2025)



ha farms available for agriculture. We researched the establishment costs and determined a range of R140 000 to R180 000 per ha¹³. These costs typically include land preparation and soil amelioration, certified tree seedlings, irrigation system (micro/drip), windbreak establishment, trellising, fencing, and basic field piping. No bare land cost is considered, as the farming unit is bought regardless of whether farming occurs.

Operating costs could range between R110 000 and R150 000 per ha¹⁴ and include fertilisers and soil nutrition, crop protection chemicals and biologicals, irrigation and energy (electricity for pumping), direct and seasonal labour, fuel, repairs and maintenance and sundries.

Macadamia orchards (12 ha)

Introducing macadamia orchards covering 12 ha within the ambit of the small-scale farms would require 2,7 small-scale farms of the 4,5 ha available for agriculture. We researched the establishment costs and determined a range of R142 000 to R182 000 per ha¹⁵. Land preparation and earthworks, irrigation infrastructure, trees and planting material, fencing and windbreaks, and a contingency based on the estimate of first-year expenses.

Operating costs could range between R516 000 and R660 350 per ha and include crop protection chemicals, electricity for irrigation, casual labour for weeding and harvesting, fuel and mechanisation running costs and interest on working capital

Dryland (rain-fed) pastures and livestock for 249 ha

The remaining agricultural areas, totalling 51 units or 249 ha, could be used for dryland (rain-fed) grazing and rearing, say, beef cattle. Research suggests that using a ratio of 1,4 ha per LSU across the 249 ha indicates a carrying capacity of 178 LSUs. For a standard commercial cow-calf system, this supports a breeding herd structure of 165 mature cows, 6 bulls, and approximately 30 replacement heifers/young stock remaining on the farm at any given time.

To prepare the pastures and acquire the LSUs, an establishment cost of R48 373 and R81 550 per ha¹⁶ is assumed. These establishment costs include pasture establishment (planting & rectifications), fixed infrastructure (fencing, kraals, handling gear, solar water), a core breeding herd (165 cows, 6 bulls), and a working capital reserve that represents a contingency for the first operational year.

Operating costs could range between R8 070 and R14 200 per LSU¹⁷ for pastures and livestock farming and includes crop protection chemicals, electricity for irrigation, casual labour for weeding and harvesting, fuel and mechanisation running costs and interest on working capital.

7.7.2 Conservation land parcels

A total of 24 small-scale conservation units with a land area of 5 ha or more have a permissible hard-surface footprint of 2 000 m². According to the Town Planning Report (Marike Vreken, 2026), the remainder that doesn't form part of the demarcated 2 000 m² footprint will be preserved as natural landscape, with trails or low-impact amenities designed to minimise ecological disturbance. The following assumptions are applied:

Development footprint:

Hardened surface (m²)	2 000
Top structures:	
Dwelling	650
Garage and outbuildings	500
Driveways and yard paving	850

¹³ Western Cape Department of Agriculture (2024b); SAAGA (2024a, b)

¹⁴ Western Cape Department of Agriculture (2024b)

¹⁵ Western Cape Department of Agriculture (2025a)

¹⁶ Land Bank (2025) pp. 32-35; Western Cape Department of Agriculture (2025b)

¹⁷ Land Bank (2025) pp. 40-44; Western Cape Department of Agriculture (2025b)



The average house size is derived by deducting the garage, outbuildings, driveways, and yard paving from the permissible hard service footprint. These numbers are estimates, and each owner will tailor the development on their 2 000 m² footprint to suit their lifestyle. The sources for the construction costs are AECOM, as stated in the Rode Report (2025:4). As before, the Escalation building cost index of the Bureau for Economic Research (BER)¹⁸ is used for projecting building rates per m² over the envisaged development period.

Establishment costs

To align with the Town Planning Application, we considered introducing trails and low-impact amenities on each conservation land unit. The premise for the determination of capital expenditure and ongoing maintenance is based on the following:

- Trail density: 1,5 – 3,0 km of walking trails (low-impact loop network)
- Trail type: natural surface and minimal grading (no heavy engineering)
- Amenities: basic “low-footprint” infrastructure
- Terrain: mixed (edges, moderate slope variability)

Initial establishment costs for the trails and low-impact amenities are estimated at R376 000 for each conservation property. The capital expenditure for 24 conservation parcels, assuming the average cost of R376 000, is R9,0 million (International Mountain Bicycling Association (IMBA) South Africa / Amarider, 2023)

Item	Assumption	Amount
Trails		
Trail length (km)	2 km average	
Basic cleared trail (/km)	R500 – R10k/km	R15 000
Moderate engineered sections (30–40%)	R20k – R50k/km	R26 000
Small boardwalk crossings (50–150 m total)	Localised	R150 000
Sub-total		R191 000
Low Impact Amenities		
Picnic node (benches, shade structures)		R65 000
Composting toilet (eco unit)		R120 000
Sub-total		R185 000
Total		R376 000

The trails and low-impact amenities (picnic node, benches, shade structures) and composting toilet (eco unit) require annual maintenance.

Maintenance expenditure: Trails

Trail maintenance includes vegetation clearing/trimming, erosion repairs (storm damage, washouts), path resurfacing (gravel/natural stabilisation), boardwalk inspections and minor repairs (if any), invasive alien plant control, firebreak maintenance (where applicable), and habitat protection/rehabilitation. The average maintenance cost for the trails is estimated at R127 500 per annum per conservation parcel.

Maintenance expenditure: Low-impact amenities

Maintenance for the low-impact amenities includes activities such as composting toilet servicing (sludge removal and cleaning), picnic area upkeep (benches, shade coverings), and signage repair/replacement. The average maintenance cost for the low-impact amenities is estimated at R44 000 per annum per conservation parcel. Should

¹⁸ Bureau for Economic Research published forecasts of in-contract building costs based on the Haylett Formula



both trails and low-impact amenities be introduced, the total annual maintenance cost in Year 1 could be about R171 500 per conservation parcel.

7.7.3 Farmworker village

The envisaged farm worker village aims to resettle 110 farm workers spread across the Hoogekraal Farm. The assumptions applied are as follows:

Number of units	110
Size of unit (m ²)	60
Rate/m ²	R5 500

7.8 Economic income and employment impact of farmworker village and reconfigured agricultural land parcels

The economies of the Western Cape, Garden Route and George will benefit from temporary employment, the procurement of goods and services, and the spending of wages and salaries by construction workers and others associated with the development of small-scale farming units and conservation parcels, as well as the construction of the workers' village. Once complete, the operational phase commences, further impacting the economy and the sustainability of employment opportunities.

A high-level estimate of socio-economic impacts during construction and operations requires an analysis based on a Social Accounting Matrix (SAM) applicable to the Western Cape. The results would also apply to the George economy, although its narrow economic base would lead to a lower impact, given the high prevalence of leakages relative to the Western Cape Province. The economic impact of construction and operations expenditure is represented by GGP, income and output multipliers, temporary job opportunities, and the impact of household spending on wages for workers directly or indirectly involved in the construction and operational phases. The impacts are direct, indirect, and induced, with the latter representing spending on salaries and wages in the local economy by workers associated with the development and operational phases of the Reconfiguration Proposal.

7.8.1 Construction

Construction of the top structures is envisaged for the farmworker village, farmsteads, and manager dwellings on the small-scale farming units, for dwellings on the conservation parcels, and for the establishment of small-scale farms. **Figure 21** shows the nominal combined capital cost of infrastructure, top structures, and capital related to the establishment of the farms over approximately 15 years.

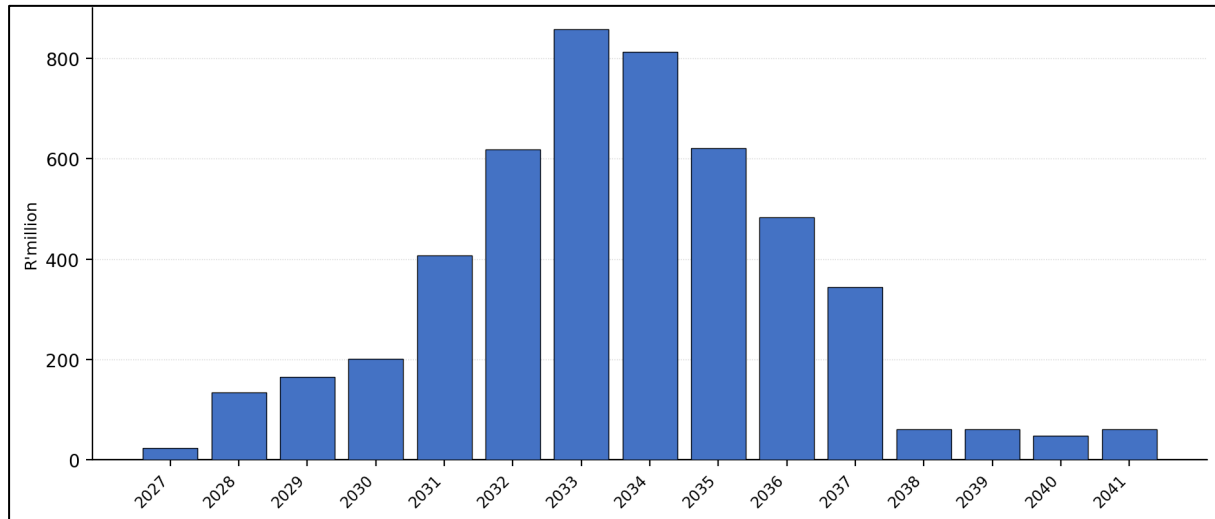


Figure 21: Estimated infrastructure, top structure and capital related to the establishment of farm and conservation lifestyle (2027 - 2041)

The anticipated sell-out curve and subsequent development cycle will be determined by market demand and by the proposed development's nature and scope. As with many building projects, traction may take some time. We have adopted a conservative approach, using the bell curve (normal distribution) as an indicator of sales. Total capital expenditure in nominal terms over the development cycle to completion is R4 899,8 million, or an average of R408,3 million per annum. The highest capital spend, R858,2 million, is expected in 2033. Most capital expenditure in the first three years relates to infrastructure.

Table 30 estimates the economic impact of the envisaged construction spending from 2027 to 2041, focusing on Output¹⁹, Gross Geographic Product (GGP)²⁰, jobs, and nominal household income.

Table 30: Estimates of direct, indirect and induced impact of spending related to GGP, output, household income and jobs during construction (2027 - 2041)

Economic measure	Direct	Indirect	Induced	Total
Gross Geographic product (GGP) (R' million)	R944,2	R1 954,0	R1 000,0	R3 898,2
Production (output) (R' million)	R4 157,5	R5 642,3	R2 524,2	R12 323,9
Household income (R' million)	R550,0	R913,5	R402,7	R1 866,1
Jobs sustained by construction expenditure	2 906	10 839	3 362	17 106

Source: Multi-Purpose Business Solutions SAM model

Note that employment opportunities do not necessarily imply NEW jobs, but rather sustainable employment for employees of contracted service providers who are not operating at full capacity. If the company doesn't have spare capacity, it may appoint additional workers, in which case NEW jobs will be created during the construction phase. Thereafter, the employment opportunities will taper off. Certain highly skilled and skilled jobs may be sourced from outside the George Municipality.

The information in **Table 30** indicates the following for the envisaged construction period:

- An estimated R4 899,8 million of capital investment in nominal terms could generate R12 323,9 million in **new business sales**, referred to as the production (or output) that generates or creates the demand for business activity during construction. This translates to an average of R821,6 million per annum in nominal terms over 15 years.
- The increase in production output could add R3 898,2 million (net of import leakage) to the **GGP** of the

¹⁹ Output is the quantity of goods or services produced within a specific period.

²⁰ Gross Geographic Product is the total monetary or market value of all the finished goods and services produced in a region in a specific period.



Western Cape, with the George Municipal area a direct and significant beneficiary. This translates to an average of R259,9 million per annum in nominal terms over 15 years.

- The capital spending on the project over the construction period could **sustain** about 17 106 (rounded) **employment opportunities** (direct, indirect and induced). This translates to sustaining an average of 1 140 jobs per annum over 15 years.
- Spending of salaries and wages by employees associated with the construction elements of the Reconfiguration Proposal could increase **economic income** by R1 866,1 million over 15 years, which translates to R124,4 million in nominal terms (escalated values) on average per annum.

Figure 22 illustrates the annual impacts for the individual items used to assess the impact, covering the indicative 15-year construction period.

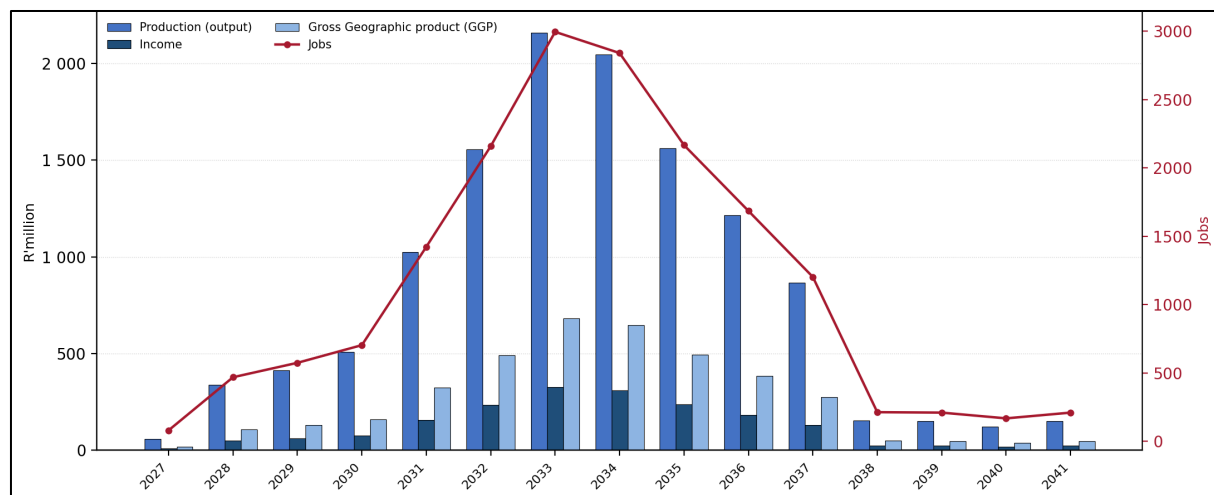


Figure 22: Impact of infrastructure, construction of top structures and farm establishment on an annual basis over 15 years

Table 31 indicates figures for several key economic indicators:

- The economy will benefit by an average of R259,9 million per annum after leakages, with a maximum of R682,8 million and a minimum of R18,4 million.
- The average output from 2027 to 2041 is estimated at R821,6 million per annum, reaching a maximum of R2 158,5 million and a minimum of R58,0 million.
- An average number of 1 140 direct, indirect and induced jobs could be sustained per annum over the construction period from 2027 to 2041, reaching a maximum of 2 996 and a minimum of 81.

Table 31: Impact of capital expenditure over the construction period

Economic measure	Total	Average (p.a.)	Maximum	Minimum
Gross Geographic product (GGP, R' million)	R3 898,2	R259,9	R682,8	R18,4
Production (output, R' million)	R12 323,9	R821,6	R2 158,5	R58,0
Income (household spending) (R' million)	R1 866,1	R124,4	R326,8	R8,8
Sustainable jobs (number)	17 106	1 140	2 996	81

Source: Multi-Purpose Business Solutions SAM model



7.8.2 Operations

Maintenance of dryland (rain-fed) pastures and livestock, or of avocado or macadamia, constitutes ongoing operational expenditure throughout the agricultural activity's lifecycle. In addition, the trails and low-impact amenities on the conservation parcels need to be maintained, and this is also included as operational expenditure. To assess the operational impact, we assumed a 25-year term (2030 to 2054) for operations, aligning with the assessment of farming dryland (rain-fed) and livestock, or avocados or macadamia, on a conventional basis without the Reconfiguration Proposal.

Table 32 estimates the socio-economic impact of the envisaged operational spending over the period 2030 - 2054, focusing on Output²¹, Gross Geographic Product (GGP)²², jobs, and nominal household income. Note that employment opportunities do not necessarily imply NEW jobs, but rather sustainable employment for employees of contracted service providers who are not operating at full capacity. If the company doesn't have spare capacity, it may appoint additional workers, in which case NEW jobs will be created during the construction phase. Thereafter, employment opportunities will taper off. Certain highly skilled and skilled jobs may likely be reserved for individuals from outside the George Municipality.

Table 32: Estimates of direct, indirect and induced impact of operational spending related to GGP, output, household income and jobs during operations (2030 – 2054)

Economic measure	Direct	Indirect	Induced	Total
Gross Geographic product (GGP, R' million)	R1 186,3	R733,3	R624,0	R2 543,7
Production (output, R' million)	R2 518,3	R1 607,6	R1 547,4	R5 673,4
Income (household spending) (R' million)	R538,5	R289,8	R251,8	R1 080,2
Sustainable jobs (number)	2 091	2 265	2 107	6 462

Source: Multi-Purpose Business Solutions SAM model

The information provided in **Table 32** indicates the following for the operational period:

- An estimated R1 992,1 million of operational spending over the period, in nominal terms, could generate R5 673,4 million in **new business sales**, referred to as the production (or output) that generates or creates the demand for business activity during operations. This translates to an average of R226,9 million per annum over 25 years, in nominal terms.
- The increase in production output could add R2 543,7 million (net of import leakage) to the **GGP** of the Western Cape, with the George Municipal area a direct and significant beneficiary. This translates to an average of R101,7 million per annum over 25 years.
- The capital spending on the project over the development period could **sustain** about 6 462 (rounded) **employment opportunities** (direct, indirect and induced) during operations. This translates to sustaining an average of 258 jobs per annum over 25 years.
- Spending on salaries and wages by employees associated with operations could increase **economic income** by R1 080,2 million over 25 years. This translates to an average of R43,2 million per annum.

Figure 23 illustrates the annual impacts for the individual items used to assess the impact, covering the indicative 25-year operational period.

²¹ Output is the quantity of goods or services produced within a specific period.

²² Gross Geographic Product is the total monetary or market value of all the finished goods and services produced on a region in a specific period.

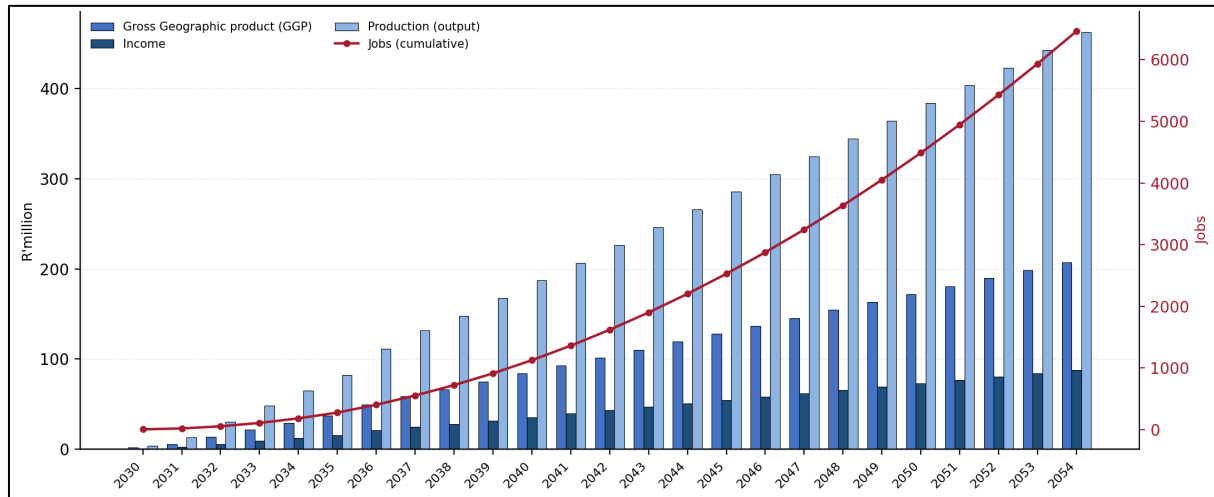


Figure 23: Impact of operational spending on an annual basis over 25 years

Table 33 indicates figures for several key economic indicators:

- The economy will benefit by an average of R101,7 million per annum after leakages, with a maximum of R207,3 million and a minimum of R1,7 million.
- The average output from 2030 to 2054 is estimated at R226,9 million per annum, reaching a maximum of R462,5 million and a minimum of R3,8 million.
- A total of 258 direct, indirect and induced jobs could be sustained each year on average over the operational period from 2030 to 2054, reaching a maximum of 527 and a minimum of 4.

Table 33: Impact of capital expenditure during the first 25 years of operations

Economic measure	Total	Average (p.a.)	Maximum	Minimum
Gross Geographic product (GGP, R' million)	R2 543,7	R101,7	R207,3	R1,7
Production (output, R' million)	R5 673,4	R226,9	R462,5	R3,8
Income (household spending) (R' million)	R1 080,2	R43,2	R88,1	R0,7
Sustainable jobs (number)	6 462	258	527	4

Source: Multi-Purpose Business Solutions SAM model

7.9 Socio-economic cost-benefit analysis results and interpretation

Cost-benefit methods evaluate an investment in broad economic terms and are based on a financial model of the proposed project. The Benefit-Cost Ratio is a key metric, representing the annual value of benefits divided by the annual value of costs, expressed in current terms and discounted over a predetermined period using an appropriate discount rate. Benefits and costs are determined by converting all applicable items to annual equivalents, since many development projects have long economic lives and are generally phased.

We assessed whether the identified costs and benefits could be quantified. The following items are considered in the Socio-Economic Cost-Benefit Analysis of the Reconfiguration Proposal as opposed to farming without it.

- Financial cost, which includes capital expenditure, relates to bulk services, internal infrastructure and top structures, as well as capital for establishing farming activities on the small-scale farming units and for introducing trails and low-impact amenities within the conservation parcels.
- Socio-economic benefit is represented by the generation of economic income due to capital expenditure during construction and to spending during operations on the maintenance of farming activities and the upkeep of trails and low-impact amenities.



- Agricultural offset (annual equivalent cash flow) if the NPV is positive for farming over 25 years, based on an agricultural footprint of 257 ha for dryland (rain-fed) and livestock production, 25 ha for avocados and 23 ha for macadamia farming.
- Fiscal and monetary revenue benefits in the form of property rates accruing to the George Municipality from completed residential dwellings and agricultural activities on the small-scale farming units. Agricultural rates are also applied to the undeveloped areas of the conservation parcels.
- Social benefits are represented by the spending of wages and salaries of employees directly or indirectly associated with the development of infrastructure and top structures, and by employment in agriculture or conservation activities that are part of the Reconfiguration Proposal.

As previously indicated, we have developed three scenarios to assess whether the Reconfiguration Proposal would deliver a net benefit when compared to farming with pastures and livestock or avocados or macadamia (i.e. without the Reconfiguration Proposal):

- **Scenario 1:** A reconfiguration of 529 ha to represent 57 small-scale farming units and 24 conservation parcels, as opposed to 257,0 ha of dryland pasture and livestock production.
- **Scenario 2:** A reconfiguration of 529 ha to represent 57 small-scale farming units and 24 conservation parcels as opposed to 25 ha of potential avocado orchards (constrained due to irrigation requirements).
- **Scenario 3:** A reconfiguration of 529 ha to represent 57 small-scale farming units and 24 conservation parcels as opposed to 23 ha of potential macadamia farming (constrained due to irrigation requirements).

Several metrics could be used to assess the results of the three scenarios in current terms and are also suitable for comparative purposes:

- Net socio-economic benefit/(loss) as a percentage of capital expenditure (socio-economic return)
- Net socio-economic benefit/(loss) per R1 investment
- Net socio-economic benefit/(loss) per employee (construction & operations)
- Socio-economic NPV (current terms) (R'million)
- Net socio-economic NPV per capita in George Municipality (2022)
- Net socio-economic NPV per household in George Municipality (2022)
- Net Jobs sustained per R1m of capital cost (construction)
- Net Jobs sustained per R1m of operational spend

A Benefit-Cost Ratio (BCR) is also considered, but this metric is not applicable to the scenarios, as the “cost” side (farming) for each of the three crops is negative.

The results and interpretation of the three scenarios are presented hereafter by summing the benefits and costs in current terms over 25 years, categorising them as applicable to the construction of infrastructure and top structures on the small-scale farming units and conservation parcels and for farming, calculating an NPV for each land use, and computing several metrics to inform the findings of each scenario.

For each scenario, the results are presented under the Micro cost-benefit approach and the Macroeconomic impact approach described in **Section 7.2. Tables 34, 36, and 38** report both approaches, together with a reconciliation. The Micro cost-benefit approach is the decision test from a bona fide agriculture perspective. However, this is not conventional farming but a mix of lifestyle farming and biodiversity protection.

7.9.1 Scenario 1: Utilisation of 257 ha of dryland pasture and livestock farming

For an assessment of the 257 ha of dryland pasture and livestock farming, free cash flow figures are used (see **Section 6**), covering a 25-year period starting in 2029 (year 0).



Section 7.8 provides information on the costs and benefits of capital expenditure on the construction of dwellings and other infrastructure, the capital required to establish farming, and the capital required for trails and amenities on the conservation parcels. **Table 34** presents the benefit and cost items for capital costs and operational expenditure for the Reconfiguration Proposal and for dryland (rain-fed) pasture and livestock farming over 25 years.

It shows the individual cost and benefit items of the Reconfiguration Proposal and dryland pasture and livestock farming, in current terms, together with the results under the Micro cost-benefit approach and the Macroeconomic impact approach described in **Section 7.2**. Capital expenditure on infrastructure, top structures, and the establishment of farming represents an outflow of funds. This spending creates direct, indirect, and induced socio-economic impacts, as well as impacts from wages and salaries earned by employees during the construction and operations phases, which are spent in the local economy. The latter is recorded as a social benefit under the Macroeconomic impact approach.

Table 34: Dryland (rain-fed) pasture and livestock farming (Scenario 1) offset against the Reconfiguration Proposal over 25 years in current terms

Land use (R'million)	Total (R 'million)
N. Micro cost-benefit approach: Benefit (PV)	R499,2
N. Micro cost-benefit approach: Cost (PV)	R3 038,6
N. Micro cost-benefit approach: Net Present Value	(R2 539,4)
N. Micro cost-benefit approach: Benefit-Cost Ratio	0,164x
M. Macroeconomic impact: Benefit (PV)	R3 249,8
M. Macroeconomic impact: Cost (PV)	R3 038,6
M. Macroeconomic impact: Net Present Value	R211,2
M. Macroeconomic impact: Benefit-Cost Ratio	1,070x

Notes:

- Net-benefit refers to the socio-economic benefits/costs of farming offset against the socio-economic benefits of the Reconfiguration Proposal of 529 ha of the Hoogekraal Farm over a period of 25 years in current terms
- As the intention is to determine a net benefit or cost, the property rates applicable to agriculture (dryland and livestock without the Configuration Proposal) are subtracted, as this is treated as a cost and therefore an offset in the cost-benefit analysis, even though it is a positive benefit to the fiscus.
- Figures in parentheses refer to negative numbers and are treated as a cost.

The results in **Table 34** can also be presented as a waterfall of costs and benefits under each approach. **Figure 24** presents the outcome as a flow of funds, showing the benefits and costs of the Reconfiguration Proposal under both the Micro cost-benefit approach and the Macroeconomic impact approach.

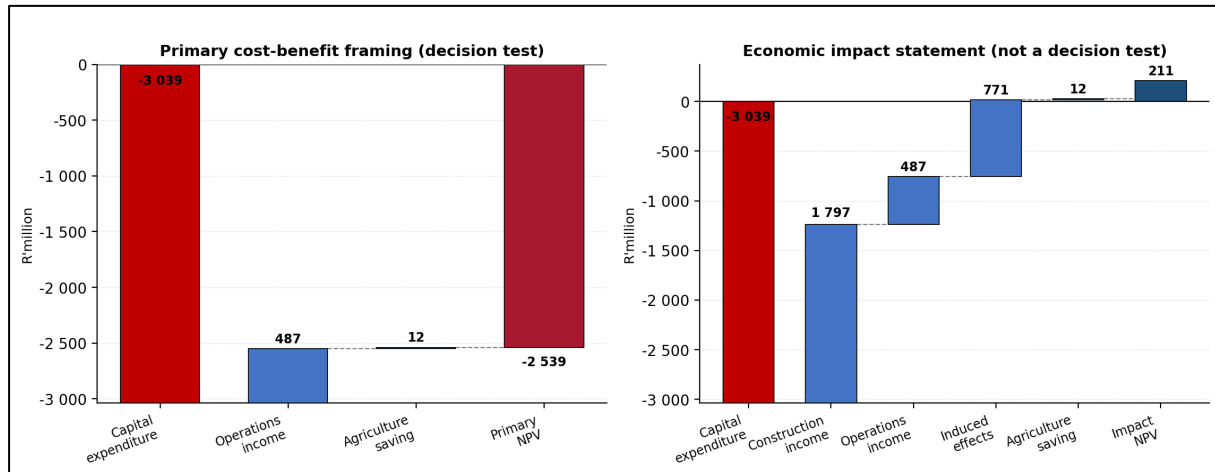


Figure 24: Reconciled waterfall of dryland pasture and livestock (257 ha, Scenario 1) against the Reconfiguration Proposal, showing the Micro cost-benefit approach and the Macroeconomic impact approach separately

Part 2 of **Table 34** presents the results under the Micro cost-benefit approach and the Macroeconomic impact approach described in **Section 7.2**. Under the Micro cost-benefit approach, which compares the capital expenditure of R3 038,6 million against the recurring operations income of R499,2 million (including the saving from the loss-making dryland pasture and livestock offset), the net present value is minus R2 539,4 million, and the benefit-cost ratio is 0,164. Ongoing operations alone do not recover the capital invested. Under the broader Macroeconomic impact approach, which also counts construction income, property rates and induced household spending, the benefit is R3 249,8 million against the same R3 038,6 million cost, giving a net present value of R211,2 million and a benefit-cost ratio of 1,070.

The two approaches answer different questions and should not be blended into one figure. The Micro cost-benefit approach tests whether the capital invested in the Reconfiguration Proposal pays for itself through the recurring value of ongoing farming and conservation operations, without also counting the construction spending that the same capital produced as a separate benefit. The Macroeconomic impact approach states the total economic and social contribution of the Reconfiguration Proposal, including construction income, property rates and induced household spending, and is not a benefit-cost decision test in the strict sense. Both figures are presented in **Table 34**.

To assess whether the benefits exceed the costs in current terms, a Benefit-Cost Ratio (BCR) could be used, calculated as the Present Value (PV) of the costs and benefits associated with the Reconfiguration Proposal, divided by the PV of the costs and benefits associated with dryland pasture and livestock farming on 257 ha over a period of 25 years, in current terms.

The following equation demonstrates the calculation of the BCR:

$$BCR = \frac{\sum_{t=1}^n \frac{B_t}{(1+d)^t}}{\sum_{t=1}^n \frac{C_t}{(1+d)^t}}$$

where BCR represents the Benefit-Cost Ratio;
" B_t " is the benefit in time " t " (Reconfiguration Proposal);
" C_t " is the cost in time " t "; (pastures and livestock, avocado or macadamia)
" d " represents the discount rate to reflect the cost of capital

A Benefit-Cost Ratio is determinable under both approaches once they are kept separate and consistently



discounted. Under the Micro cost-benefit approach, the ratio is 0,164, meaning the recurring value produced does not recover the capital invested. Under the Macroeconomic impact approach, the ratio is 1,070, meaning the total economic and social contribution, including construction and induced effects, exceeds the capital cost. The same approach applies to avocado and macadamia farming in **Sections 7.9.2 and 7.9.3**.

The metrics in **Table 35** are calculated on the Macroeconomic impact approach, consistent with the figures presented in **Table 34**, and are not benchmarked against the Micro cost-benefit approach. On this basis, the Reconfiguration Proposal generates a net socio-economic return of 6,95% in current terms, equivalent to 6c per Rand of capital expenditure, and the socio-economic benefit per employee at peak employment over the 25-year period is R9 212. The impact-approach NPV is positive at R211 million. Under the Micro cost-benefit approach described in **Section 7.2**, the net present value is minus R2 539 million and the benefit-cost ratio is 0,164, meaning the capital invested is not recovered from recurring operations alone.

Table 35: Metrics (indicators) of a socio-economic nature related to Scenario 1

Indicators (current terms)	Impact of Reconfiguration Proposal - Scenario 1
Net socio-economic benefit as a percentage of capital expenditure (socio-economic return)	6,95%
Net socio-economic benefit per R1 investment	R0,07
Net socio-economic benefit per employee (construction & operations)	R9 212
Socio-economic NPV (current terms)	R211
Net socio-economic present value per capita in George Municipality (2022)	R718
Net socio-economic present value per household in George Municipality (2022)	R2 464
Net Jobs sustained per R1m of capital cost (construction)	5,44
Net Jobs sustained per R1m of operational spending	3,24

Note: These metrics are not benchmarked but offer a comparison with other land uses

The impact at the municipal level suggests a per-capita benefit of R718, based on the net socio-economic benefit of the Reconfiguration Proposal (in current terms) and George Municipality's 2022 population (294 929)²³. The current net socio-economic benefit is R2 464 per household in the George Municipality, based on 2022 figures²⁴. Based on the cumulative number of employment opportunities created by the Reconfiguration Proposal during construction, the equivalent of 5,44 jobs could be sustained for every R1 million of capital spent. Operational spend from farming and conservation activities suggests that 3,24 jobs could be sustained for every R1 million of estimated operational expenditure (essentially maintenance and operations for small-scale agricultural farming and maintenance and upkeep of trails and low-impact amenities on the conservation parcels).

The Reconfiguration Proposal, as opposed to dryland pasture and livestock farming, is underpinned by the fact that even with a benchmark of dryland pasture and livestock farming that assumes maximum (historical) land use on 257,0 ha, the projected returns are insufficient to meet the definition of an economically viable and sustainable pasture and livestock farming operation. A negative NPV of R14,0 million (rounded) and an IRR of 0,2% over 25 years, which would not meet the minimum required return that investors would require. This does not mean the Reconfiguration Proposal recovers its own capital cost outright: under the Micro cost-benefit approach, it does not. It means the Reconfiguration Proposal is the better of the two options considered, and that its broader economic and social contribution, under the Macroeconomic impact approach, is positive.

7.9.2 Scenario 2: Utilisation of 25 ha for avocado farming

For a similar assessment of avocado farming, free cash flow figures are used (see **Section 6.7**), covering a 25-year period starting in 2029 (year 0). **Section 7.8** provides information on the costs and benefits of capital expended on constructing dwellings and other infrastructure, and on the capital required to establish farming, trails, and

²³ George Municipality 2024/2025 Annual report

²⁴ George Municipality Integrated Development Plan (IDP): The 2026/2027 IDP review is based on a household size of 3,4.



amenities on the conservation parcels.

Table 36 presents the benefit and cost items for the impact of capital costs and operational expenditure for the Reconfiguration Proposal compared to the potential to farm avocados on a 25-ha footprint over 25 years (constrained by irrigation water).

Table 36: Avocado farming (Scenario 2) offset against the Reconfiguration Proposal over 25 years in current terms

Land use (R'million)	Total (R'million)
N. Micro cost-benefit approach: Benefit (PV)	R492,9
N. Micro cost-benefit approach: Cost (PV)	R3 038,6
N. Micro cost-benefit approach: Net Present Value	(R2 545,7)
N. Micro cost-benefit approach: Benefit-Cost Ratio	0,162x
M. Macroeconomic impact: Benefit (PV)	R3 243,4
M. Macroeconomic impact: Cost (PV)	R3 038,6
M. Macroeconomic impact: Net Present Value	R204,9
M. Macroeconomic impact: Benefit-Cost Ratio	1,067x

Notes:

- Net-benefit refers to the socio-economic benefits/costs of farming offset against the socio-economic benefits of the Reconfiguration Proposal of 529 ha of the Hoogekraal Farm over a period of 25 years in current terms
- As the intention is to determine a net benefit or cost, the property rates applicable to agriculture (dryland and livestock without the Configuration Proposal) are subtracted, as this is treated as a cost and therefore an offset in the cost-benefit analysis, even though it is a positive benefit to the fiscus.
- Figures in parentheses refer to negative numbers and are treated as a cost.

Table 36 presents the results under the Micro cost-benefit and the Macroeconomic impact approaches described in **Section 7.2**. Under the Micro cost-benefit approach, the capital expenditure of R3 038,6 million is compared against recurring operations income of R492,9 million (including savings from the loss-making avocado offset), giving a net present value of minus R2 545,7 million and a benefit-cost ratio of 0,162. Under the broader Macroeconomic impact approach, which also counts construction income, property rates and induced household spending, the benefit is R3 243,4 million against the same cost, giving a net present value of R204,9 million and a benefit-cost ratio of 1,067.

Table 36 indicates a net benefit of R205,3 million in current terms for the reconfiguration proposal relative to farming on 25 ha with avocados over 25 years (Scenario 2). The results in **Table 36** can also be presented as a waterfall of costs and benefits under each approach. **Figure 25** presents the outcome as a flow of funds, showing the benefits and costs of the Reconfiguration Proposal compared with farming 25 ha of avocados, under both the Micro cost-benefit approach and the Macroeconomic impact approach.

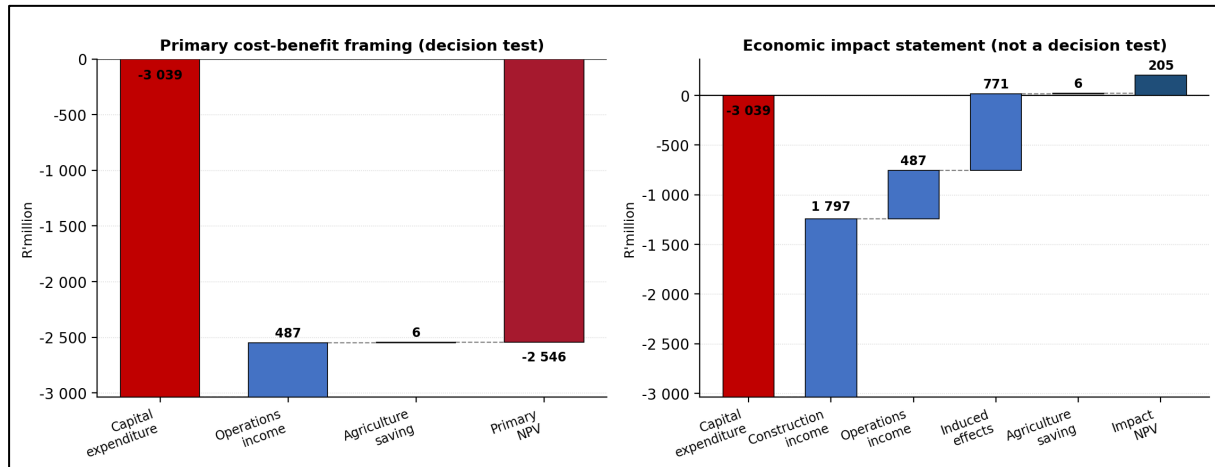


Figure 25: Reconciled waterfall of avocado farming (25 ha, Scenario 2) against the Reconfiguration Proposal, showing the Micro cost-benefit approach and the Macroeconomic impact approach separately

A Benefit-Cost Ratio is determinable under both approaches once they are kept separate and consistently discounted, as set out in **Section 7.9.1**. Under the Micro cost-benefit approach, the ratio is 0,162. Under the Macroeconomic impact approach, it is 1,067. The metrics calculated for Scenario 1 (see **Section 7.9.1**) are also applied to Scenario 2 (**Table 37**), on the Macroeconomic impact approach.

Table 37: Metrics (indicators) of a socio-economic nature related to Scenario 2

Indicators (current terms)	Impact of Reconfiguration Proposal - Scenario 2
Net socio-economic benefit as a percentage of capital expenditure (socio-economic return in current terms)	6,74%
Net socio-economic benefit per R1 investment	R0,07
Net socio-economic benefit per employee (construction & operations)	R8 927
Socio-economic NPV (current terms)	R205
Net socio-economic present value per capita in George Municipality (2022)	R695
Net socio-economic present value per household in George Municipality (2022)	R2 388
Net Jobs sustained per R1m of capital cost (construction)	5,44
Net Jobs sustained per R1m of maintenance spending	3,24

The metrics in **Table 37** are calculated on the Macroeconomic impact approach, and are not benchmarked against the Micro cost-benefit approach. On this basis, the Reconfiguration Proposal generates a net socio-economic return of 6,74% in current terms, equivalent to 6c per Rand of capital expenditure, and the socio-economic benefit per employee at peak employment over the 25-year period is R8 927. The impact-approach NPV is positive at R205 million. Under the Micro cost-benefit approach, by contrast, the net present value is minus R2 546 million, and the benefit-cost ratio is 0,162.

The impact at the municipal level suggests the per capita benefit is R695, based on the net socio-economic benefit of the Reconfiguration Proposal (in current terms) and George Municipality's 2022 population (294 929)²⁵. The current net socio-economic benefit is R2 388 per household in the George Municipality, based on 2022 figures²⁶. Based on the cumulative number of employment opportunities created by the Reconfiguration Proposal during

²⁵ George Municipality 2024/2025 Annual report

²⁶ George Municipality Integrated Development Plan (IDP): The 2026/2027 IDP review based on a household size of 3,4



construction, the equivalent of 5,44 jobs could be sustained for every R1 million of capital spent. Operational spend from farming and conservation activities suggests that 3,24 jobs could be sustained for every R1 million of estimated operational expenditure (essentially maintenance and operations for small-scale agricultural farming and maintenance and upkeep of trails and low-impact amenities on the conservation parcels).

Even under a benchmark of avocado farming that assumes maximum land use on 25 ha (within the irrigation constraints), the projected returns appear insufficient to meet the definition of an economically viable and sustainable farming operation, with a negative NPV of R6,0 million and a sub-optimal IRR of 5,8% over 25 years. As with Scenario 1, this shows that the Reconfiguration Proposal is the better of the two options considered, and that its broader economic and social contribution is positive under the Macroeconomic impact approach; however, it does not recover its own capital cost under the Micro cost-benefit approach.

7.9.3 Scenario 3: Utilisation of 23 ha for macadamia farming

To assess macadamia nut farming, free cash flow figures are used (see **Section 6.8**), covering a 25-year period starting in 2029 (year 0). **Section 7.8** provides information on the costs and benefits of capital expenditure for constructing dwellings and other infrastructure, and on the capital required to establish farming, trails, and amenities on the conservation parcels. **Table 38** presents the benefit and cost items for the impact of capital costs and operational expenditures for the Reconfiguration Proposal and for the potential to farm 23 ha of macadamia within irrigation water constraints over 25 years.

Table 38: Macadamia farming (Scenario 3) offset against the Reconfiguration Proposal over 25 years in current terms

Land use (R'million)	Total (R 'million)
N. Micro cost-benefit approach: Benefit (PV)	R488,3
N. Micro cost-benefit approach: Cost (PV)	R3 038,6
N. Micro cost-benefit approach: Net Present Value	(R2 550,3)
N. Micro cost-benefit approach: Benefit-Cost Ratio	0,161x
M. Macroeconomic impact: Benefit (PV)	R3 238,9
M. Macroeconomic impact: Cost (PV)	R3 038,6
M. Macroeconomic impact: Net Present Value	R200,3
M. Macroeconomic impact: Benefit-Cost Ratio	1,066x

Notes:

- Net-benefit refers to the socio-economic benefits/costs of farming offset against the socio-economic benefits of the Reconfiguration Proposal of 529 ha of the Hoogekraal Farm over a period of 25 years in current terms
- As the intention is to determine a net benefit or cost, the property rates applicable to agriculture (dryland and livestock without the Configuration Proposal) are subtracted, as this is treated as a cost and therefore an offset in the cost-benefit analysis, even though it is a positive benefit to the fiscus.
- Figures in parentheses refer to negative numbers and are treated as a cost.

Table 38 presents the results under the Micro cost-benefit approach and the Macroeconomic impact approach described in **Section 7.2**. Under the Micro cost-benefit approach, the capital expenditure of R3 038,6 million is compared against a recurring operations income of R488,3 million (including the saving from the loss-making macadamia offset), giving a net present value of minus R2 550,3 million and a benefit-cost ratio of 0,161. Under the broader Macroeconomic impact approach, which also counts construction income, property rates and induced household spending, the benefit is R3 238,9 million against the same cost, giving a net present value of R200,3 million and a benefit-cost ratio of 1,066.

Table 38 shows the individual cost and benefit items of the Reconfiguration Proposal and macadamia farming, in current terms, together with the results under the Micro cost-benefit approach and the Macroeconomic impact approach described in **Section 7.2**. These results can also be presented as a waterfall of costs and benefits under each approach. **Figure 26** presents the outcome as a flow of funds, showing the benefits and costs of the Reconfiguration Proposal under both the Micro cost-benefit approach and the Macroeconomic impact approach.

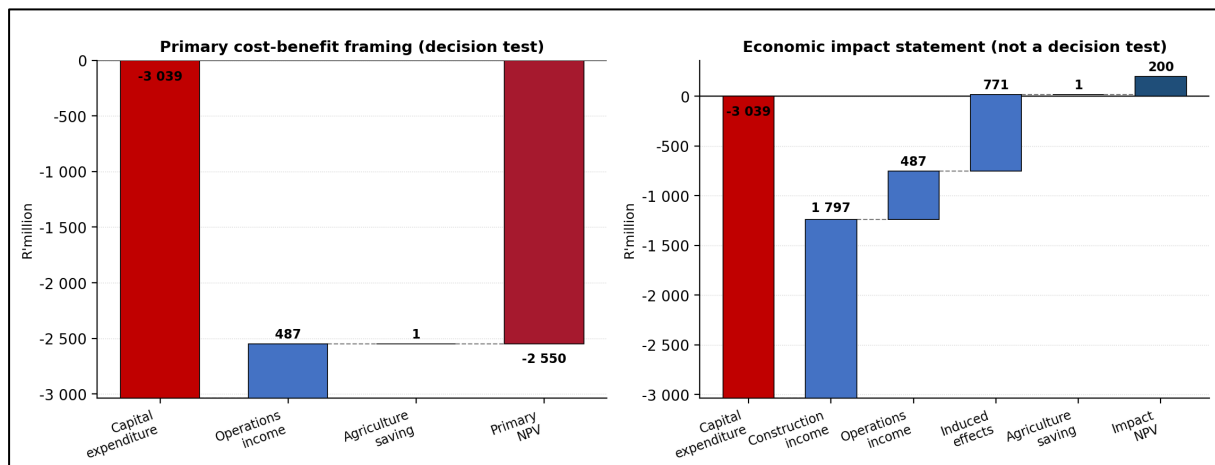


Figure 26: Reconciled waterfall of macadamia farming (23 ha, Scenario 3) against the Reconfiguration Proposal, showing the Micro cost-benefit approach and the Macroeconomic impact approach separately

A Benefit-Cost Ratio is determinable under both approaches once they are kept separate and consistently discounted, as set out in **Section 7.9.1**. Under the Micro cost-benefit approach, the ratio is 0,161. Under the Macroeconomic impact approach, it is 1,066. The metrics calculated for Scenario 1 (see **Section 7.9.1**) are also applied to Scenario 3 (**Table 39**), on the Macroeconomic impact approach.

Table 39: Metrics (indicators) of a socio-economic nature related to Scenario 3

Indicators (current terms)	Impact of reconfiguration proposal - Scenario 3
Net socio-economic benefit as a percentage of capital expenditure (socio-economic return in current terms)	6,59%
Net socio-economic benefit per R1 investment	R0,07
Net socio-economic benefit per employee (construction & operations)	R8 722
Socio-economic NPV (current terms) (million)	R200
Net socio-economic present value per capita in George Municipality (2022)	R680
Net socio-economic present value per household in George Municipality (2022)	R2 333
Net Jobs sustained per R1m of investment (construction)	5,44
Net Jobs sustained per R1m of maintenance spending	3,24

The metrics in **Table 39** are calculated on the Macroeconomic impact approach, and are not benchmarked against the Micro cost-benefit approach. On this basis, the Reconfiguration Proposal generates a net socio-economic return of 6,59% in current terms, equivalent to 7c per Rand of capital expenditure, and the socio-economic benefit per employee at peak employment over the 25-year period is R8 722. The impact-approach NPV is positive at R200 million. Under the Micro cost-benefit approach, by contrast, the net present value is minus R2 550 million, and the benefit-cost ratio is 0,161.

The impact at the municipal level suggests the per capita benefit is R680, based on the net socio-economic benefit of the Hoogeland development (in current terms) and George Municipality's 2022 population (294 929)²⁷. The current net socio-economic benefit is R2 333 per household in the George Municipality, based on 2022 figures²⁸. Based on the cumulative number of employment opportunities created by the Reconfiguration Proposal during

²⁷ George Municipality 2024/2025 Annual report

²⁸ George Municipality Integrated Development Plan (IDP): The 2026/2027 IDP review based on a household size of 3,4



construction, the equivalent of 5,44 jobs could be sustained for every R1 million of capital spent. Operational spend from farming and conservation activities suggests that 3,24 jobs could be sustained for every R1 million of estimated operational expenditure (essentially maintenance and operations for small-scale agricultural farming and maintenance and upkeep of trails and low-impact amenities on the conservation parcels).

Even under a benchmark macadamia farming scenario, which assumes the use of 23 ha due to irrigation constraints, the projected returns are insufficient to meet the definition of an economically viable and sustainable macadamia farming operation, with a negative NPV of R1,1 million and a sub-optimal IRR of 7,4% over 25 years. This is most likely due to the working capital requirement and the need for scale, which is not achievable on a small footprint (all else being equal). As with Scenarios 1 and 2, this establishes that the Reconfiguration Proposal is the better of the two options considered under the Macroeconomic impact approach; it does not mean the Reconfiguration Proposal recovers its own capital cost under the Micro cost-benefit approach.

7.10 Comparison of current benefits and costs for Scenarios 1 -3

Table 40 presents the benefits and costs of the three scenarios in current terms, and the net benefit of considering the Reconfiguration Proposal compared with farming 257 ha of dryland (rain-fed) and livestock, 25 ha of avocados, or 23 ha of macadamia. All the scenarios assume the Reconfiguration Proposal as a baseline. The net outcome depends on farming the three crops under irrigation constraints, all else equal. The property rates applicable to the agricultural value (without the Reconfiguration Proposal) are offset by the property rates generated by the introduction of the Reconfiguration Proposal.

The figures in **Table 40**, **Table 41** and **Table 42** are presented on the Macroeconomic impact approach described in **Section 7.2**, consistent with the individual scenario tables. Under the Micro cost-benefit approach, which excludes construction income, property rates and induced effects to avoid double counting against the capital expenditure, the net present value is minus R2 539,4 million for Scenario 1, minus R2 545,7 million for Scenario 2, and minus R2 550,3 million for Scenario 3, with a benefit-cost ratio ranging from 0,161 to 0,164 across the three scenarios. Under none of the three scenarios is the capital expenditure recovered from recurring operations income alone. The reconciliation of the two approaches for each scenario is presented in **Sections 7.9.1 to 7.9.3**.

Table 40: Three farming options (Scenario 1, 2 and 3) offset against the Reconfiguration Proposal over 25 years in current terms

Indicator (R'million)	Scenario 1	Scenario 2	Scenario 3
N. Micro cost-benefit approach: Benefit (PV)	R499,2	R492,9	R488,3
N. Micro cost-benefit approach: Cost (PV)	R3 038,6	R3 038,6	R3 038,6
N. Micro cost-benefit approach: Net Present Value	(R2 539,4)	(R2 545,7)	(R2 550,3)
N. Micro cost-benefit approach: Benefit-Cost Ratio	0,164x	0,162x	0,161x
M. Macroeconomic impact: Benefit (PV)	R3 249,8	R3 243,4	R3 238,9
M. Macroeconomic impact: Cost (PV)	R3 038,6	R3 038,6	R3 038,6
M. Macroeconomic impact: Net Present Value	R211,2	R204,9	R200,3
M. Macroeconomic impact: Benefit-Cost Ratio	1,070x	1,067x	1,066x



Verdict at the assumptions applied	Costs exceed benefits (Micro); benefits exceed costs (impact)	Costs exceed benefits (Micro); benefits exceed costs (impact)	Costs exceed benefits (Micro); benefits exceed costs (impact)
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Note: Scenario 1, Reconfiguration Proposal replaces 257 ha of dryland pasture and livestock. Scenario 2, Reconfiguration Proposal replaces 25 ha of avocado orchards. Scenario 3, Reconfiguration Proposal replaces 23 ha of macadamia orchards.

Note: Scenario 1, Reconfiguration Proposal replaces 257 ha of dryland pasture and livestock
Scenario 2, Reconfiguration Proposal replaces 25 ha of avocado orchards
Scenario 3, Reconfiguration Proposal replaces 23 ha of macadamia orchards

7.10.1 Net benefit-cost in nominal terms and current terms

The premise of the Socio-Economic Cost-Benefit Analysis is to determine whether a net benefit or cost results from offsetting the costs against the benefits. In this case, agricultural use only (dryland pastures and livestock, avocados or macadamia) is offset against the benefits of the Reconfiguration Proposal under Scenarios 1, 2 and 3. **Table 41** indicates the current and nominal net benefit/(cost) over 25 years and on an average annual basis.

Table 41: Comparison of net benefit/(cost) in current and nominal terms for each scenario over 25 years and on average per annum

(R 'million)	Scenario 1	Scenario 2	Scenario 3
Nominal net benefit/(cost)	R2 182,9	R2 154,8	R2 085,3
Nominal net benefit/(cost) p.a.	R87,3	R86,2	R83,4
Current net benefit/(cost) (Macroeconomic impact approach)	R213,1	R205,3	R200,4
Current net benefit/(cost) (Micro approach)	(R2 539,4)	(R2 545,7)	(R2 550,3)
Current net benefit/(cost) p.a.	R8,5	R8,2	R8,0

Note: Scenario 1, Reconfiguration Proposal replaces 257 ha of dryland pasture and livestock
Scenario 2, Reconfiguration Proposal replaces 25 ha of avocado orchards
Scenario 3, Reconfiguration Proposal replaces 23 ha of macadamia orchards

Cost-benefit analysis focuses on net benefit or cost, expressed in current terms. The nominal figures are provided for information purposes only. **Table 41** indicates a positive net benefit for the Reconfiguration Proposal across all three scenarios. This highlights that the Reconfiguration Proposal offers a superior return compared to farming on a more conventional basis (without the Reconfiguration Proposal), which yields a negative NPV and sub-optimal IRR.

Table 41 presents the net benefit on the Macroeconomic impact approach. On the Micro cost-benefit approach, the comparable current net cost is minus R2 539,4 million (Scenario 1), minus R2 545,7 million (Scenario 2), and minus R2 550,3 million (Scenario 3), reflecting that the capital expenditure is not recovered from recurring operations income alone in any of the three scenarios.

7.10.2 Key comparative metrics

The comparison of key metrics in **Table 42** highlights the differences between the three scenarios. The metrics clearly show that, all else being equal, the Reconfiguration Proposal offers a net benefit in current terms over dryland (rain-fed) and livestock, avocado, and macadamia nut farming covered in the analysis. More significantly, the Reconfiguration Proposal generates more than R680 per capita in the George Municipal area. The construction and operational spending, given that the Reconfiguration Proposal is intended to create a viable farming operation within the constraints of irrigation water using a co-operative/outgrower model, will add value through the scope of farming envisaged and enable ongoing employment and sustainability, particularly once farming commences.

Table 42: Key metrics related to outcomes of the Reconfiguration Proposal in terms of each scenario



Indicators (current terms)	Scenario 1	Scenario 2	Scenario 3
Net socio-economic benefit as a percentage of capital expenditure (socio-economic return in current terms)	6,95%	6,74%	6,59%
Net socio-economic benefit per R1 investment	R0,07	R0,07	R0,07
Net socio-economic benefit per employee (construction & operations)	R9 212	R8 927	R8 722
Socio-economic NPV (current terms) (Macroeconomic impact approach)	R211	R205	R200
Socio-economic NPV (current terms) (Micro approach)	(R2 539)	(R2 546)	(R2 550)
Net socio-economic present value per capita in George Municipality	R718	R695	R680
Net socio-economic present value per household in George Municipality	R2 464	R2 388	R2 333
Net Jobs sustained per R1m of capital cost (construction)	5,44	5,44	5,44
Net Jobs sustained per R1m of operational spend	3,24	3,24	3,24

Note: Scenario 1, Reconfiguration Proposal replaces 257 ha of dryland pasture and livestock
Scenario 2, Reconfiguration Proposal replaces 25 ha of avocado orchards
Scenario 3, Reconfiguration Proposal replaces 23 ha of macadamia orchards

The metrics in **Table 42** are calculated on the Macroeconomic impact approach. Under the Micro cost-benefit approach, the benefit-cost ratio ranges from 0,161 to 0,164 across the three scenarios, meaning the capital invested is not recovered from recurring operations income alone; the Macroeconomic impact approach benefit-cost ratio, ranging from 1,066 to 1,070, reflects the total economic and social contribution once construction income, property rates and induced effects are included.

Note that these metrics provide context and are not assessed against a benchmark, except for the net socio-economic return, which is considered within the “good” range. However, they are useful for comparing the three scenarios. For instance, the GGP per capita in the George area in 2022 was estimated at R109 780 (George Municipality (2023)). The net benefit of the Configuration Proposal in current (2025) terms is estimated to be R680. If we deflate this number by three years (Western Cape Provincial Treasury, 2026) to align with the 2022 per capita figure based on the Gross Value Added (GVA), the figure is R571, which represents 0,5% of the GGP per capita in George in 2022.

7.11 Social/employment comparison

Any change in land use has social implications reflected in “on-site” employment. It is possible to consider the employment impact of the Reconfiguration Proposal, which enables employment creation at three levels. The small-scale farms would generate employment from farming activities and the residential component. For the conservation parcels, employment creation relates to conservation-lifestyle living (residential component) and the upkeep of the conservation lifestyle (trails and low-impact amenities). The converse entails assessing employment for dryland pasture and livestock, avocado, or macadamia, to the extent permissible under irrigation constraints (without the Reconfiguration Proposal). This part of the analysis excludes direct on-site construction employment, as it represents temporary jobs that will taper off once the infrastructure is in place and the top structures are complete.

7.11.1 Employment related to small-scale farms and conservation properties

The Reconfiguration Proposal entails 57 small-scale farming units and 24 conservation parcels. Given the nature of the properties and the dwellings' high-end focus, the following scenarios could unfold. We assumed a mix between Family-Focused and Fully Staffed, as per the guidance below, and applied an average of three staff per household (main dwelling) across agricultural smallholdings and conservation properties. We also assume that one person will be employed to maintain the farm manager's dwelling on the agricultural properties. The staffing complement for the agricultural properties is as follows: main farm dwellings (171) and farm managers' houses (57), resulting in a total of 229 direct employment equivalents. For the conservation units, 72 direct employment equivalents are envisaged, with a total permanent employment complement of 301 associated with the dwellings on the small-scale farming units and conservation properties once all the dwellings are built and occupied.



Tier	Number of Staff	Typical Roles	Focus Area
Tier 1: Core / Basic	1 to 2	1 Full-Time Housekeeper & 1 Gardener	Basic cleaning, laundry, property upkeep, and exterior maintenance.
Tier 2: Family-Focused	2 to 3	1 Housekeeper, 1 Nanny / Au Pair, 1 Gardener	Adds childcare and active supervision while covering the home and grounds.
Tier 3: Fully Staffed	3 to 5	1 House Manager/Butler, 1–2 Housekeepers, 1 Private Chef, 1 Groundskeeper	Comprehensive service, cooking, entertaining, and high-end wardrobe/interior care.

Source: Tiger Recruitment (2024)

7.11.2 Employment related to farming with dryland pasture and livestock, avocado or macadamia

We adopted an approach that considers three types of agricultural activity on smallholdings, with the following assumed apportionment of small-scale farms: Dryland pasture and livestock (51), avocado (3), and macadamia (3). This allocation is based on irrigation water availability. Guidance on the permanent and seasonal employment for the three crop types is provided below.

Crop Type	Permanent workers (per ha)	Total FTE ²⁹ needed (4,5 ha)	Seasonal harvest labour	Primary labour activities
Dryland and livestock	0,05 - 0,10 FTE	1 - 2 workers	Low (1)	Fence maintenance, rotational grazing shifts, water infrastructure monitoring, basic animal husbandry, weed management and pasture fertilisation.
Macadamias	1 FTE	4 - 5 workers	Low (1-2 additional)	Harvesting, pruning, weeding, and orchard floor management
Avocados	1 to 1,2 FTE	5 - 6 workers	Moderate (3-5 additional)	Harvesting, foliar spraying, manual weed control, and pruning

Source: Western Cape Department of Agriculture (2025a, b)

Based on the above guidance, we adopted the following breakdown for permanent and seasonal workers on a 4,5-ha small-scale farm. Based on the crop allocation, a weighted average of four (rounded) permanent and seasonal workers would be required. **This translates to a total weighted employment of 228 persons for the 57 farming units.**

Crop type (per 4,5 ha)	Permanent	Seasonal	Total
Dryland (rain-fed) and livestock	2	1	3
Macadamia	4	2	6
Avocados	5	4	9
Arithmetic Average	5	4	9

7.11.3 Employment related to conservation lifestyle areas

²⁹ FTE = Full-Time Equivalent



The conservation area (excluding the dwelling), which is assumed to have trails and low-impact amenities, would require regular upkeep using a lean staffing model. For these purposes, the following guidance is used:

- A full-time, dedicated conservation worker for a 4,8-ha conservation property is rarely required unless the land is heavily infested with alien invasive plants (AIPs). Most conservation lifestyle areas of this scale operate effectively with **one permanent general worker** (or a half-time staff member) who manages both the conservation area and general property maintenance.
- Seasonal and specialised employment is required for alien clearing (annual/biannual), which requires a specialised contractor team (typically 4 - 8 people) for 2 - 5 days, once or twice a year, to perform intensive hacking or spraying. Trail Reconstruction (post-rainy season) may be required due to the climate, and heavy rains can cause erosion on slopes in the Garden Route. A seasonal team may be needed for one week per year to repair drainage bars and re-surface trail sections. A permanent worker could maintain firebreak preparation. However, the initial clearing of a 4,8-ha perimeter often requires a "blitz" effort over 2 - 3 days involving a team of 3 - 4 people to ensure the area is compliant before the peak fire season.

Based on annual employment, using the number of person-days (see below) as a guide and 21,67 workdays per month, the staff requirement is three persons (rounded). Annually, the staff requirement is less than one. **For the 24 conservation properties envisaged, the guidance specifies a staff requirement of 72.**

Task Type	Frequency	Estimated Effort (Person-Days)
Routine Trail Maintenance	Monthly	2–4 days per month
Amenity Inspection/Cleaning	Weekly	1 day per month (cumulative)
Invasive Plant Management	Quarterly	5–10 days per year
Boundary Firebreak Maintenance	Annual	3–6 days per year
TOTAL ESTIMATED³⁰	Annual	45–65 person-days

7.11.4 Employment with and without the Reconfiguration Proposal

The employment analysis below contrasts the employment impact under the Reconfiguration Proposal with that of conventional farming on 257 ha of dryland pasture, 25 ha of avocado, or 23 ha of macadamia. **Table 43** presents the full-time direct jobs and seasonal employment associated with the Reconfiguration Proposal and conventional farming. It also provides a further breakdown of employment created by dwellings and farming activities, per crop type, on small-scale farming units. In addition, a breakdown of employment figures is also provided for the conservation properties as they relate to dwellings and maintenance of trails and low-impact amenities.

Table 43: Direct full-time and seasonal employment with and without the Reconfiguration Proposal

Crop	Permanent	Seasonal	Total
RECONFIGURATION PROPOSAL			
Agri small-scale units (57)	239		265
Dwellings	229		229
Agriculture	10		36
Avocado Orchards (12)	4	13	17
Macadamia Orchards (12)	4	10	14
Dryland and livestock (249)	2	3	5

³⁰ The specific labour ratios (e.g., 45–65 person-days) are derived from **comparative land-use modelling**. This involves taking the **Full-Time Equivalent (FTE)** coefficients for "Low-Input Horticulture" or "Extensive Pasture Management" provided by Elsenburg and adjusting them for non-commercial conservation activities, such as AIP Management: Using the Working for Water (DWS) standards for clearing person-days per hectare based on density. Trail Maintenance: Using standard SANParks or CapeNature guidelines for "Light Footpath Maintenance" which averages 1 man-day per kilometre of trail per month.



Crop	Permanent	Seasonal	Total
Conservation properties (24)	96		96
Dwellings	72		72
Conservation lifestyle	24	47	71
Total			361
FARM UTILISATION (NO RECONFIGURATION)			
Dryland and livestock (257 ha)	2	3	5
Avocado (25 ha)	10	20	30
Macadamia (23 ha)	8	15	23
Arithmetic Average	7	13	20

The information in **Table 43** is further analysed and unpacked below, focusing on salient points. Conventional farming with any of the three crops on the Hoogekraal Farm would, on average, sustain 20 jobs per annum (noting that provision can only be made for one crop), while the Reconfiguration Proposal could sustain 361 jobs per annum. Jobs from conventional farming represent only 5,5% of the total jobs created by the Reconfiguration Proposal. Stated differently, implementing the Reconfiguration Proposal creates 18 jobs for every 1 job in conventional farming (without the Reconfiguration Proposal). **Figure 27** illustrates the employment created through conventional farming vs the Reconfiguration Proposal. The Reconfiguration Proposal accounts for almost 72,8% of employment, while 27,2% is associated with conservation properties

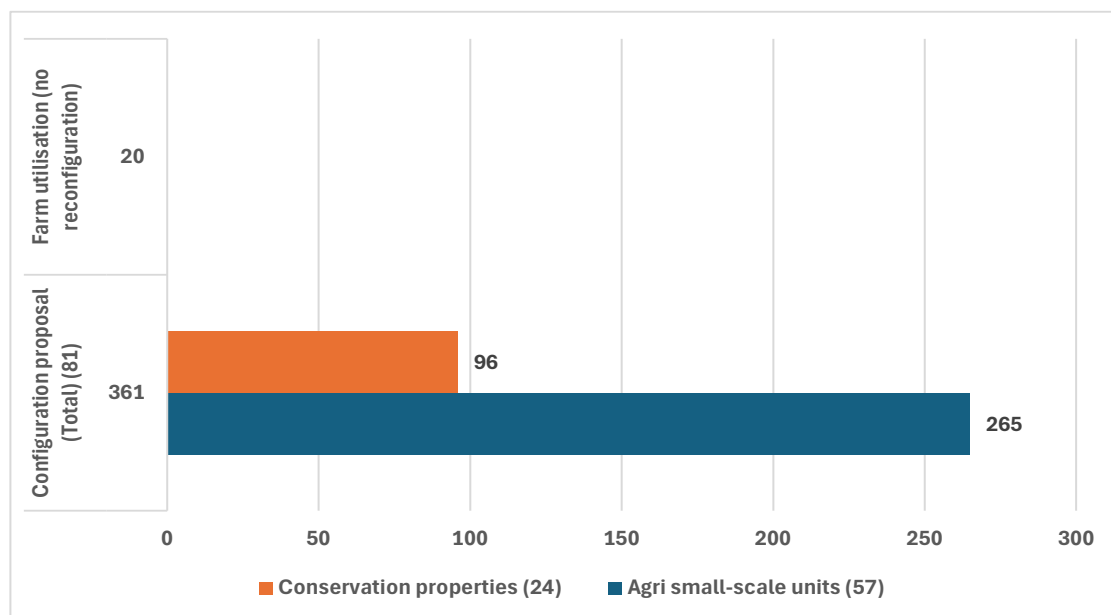


Figure 24: Total employment for conventional farming and the Reconfiguration Proposal

Figure 28 illustrates a breakdown of total employment (permanent and seasonal) across the three types of agricultural activities used for small-scale farming and related to the dwellings. Avocado is the most labour-intensive, while pastures and livestock are the least labour-intensive. The dwellings provide the largest staff complement.

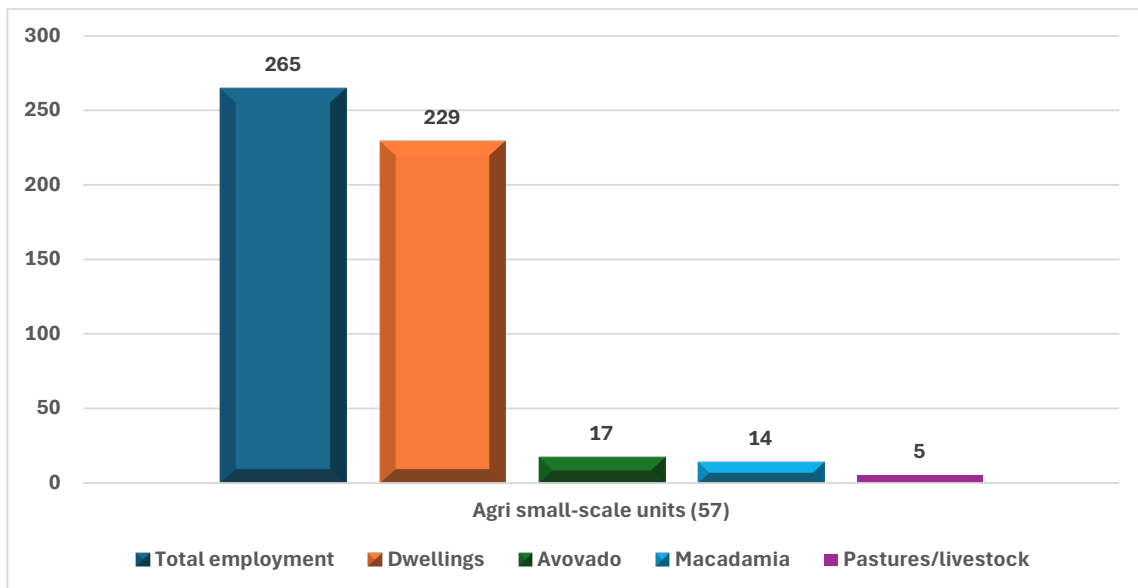


Figure 25: Total full-time and seasonal employment applicable to farming units that farm with dryland pastures and livestock, avocado and macadamia, as well as dwelling units

7.12 Conclusion

Consent for the consolidation and subdivision of several farms to create the 529-ha Hoogeland development was granted in 2021 by the Department of Agriculture, Land Reform and Rural Development), but this development was never taken forward. A new Reconfiguration Proposal for the Hoogeland footprint entails subdividing 529 ha into 57 small-scale agricultural farms, each with a minimum size of 5 ha, and 24 conservation parcels, resulting in 81 subdivided freehold properties. The proposal ensures the properties remain agricultural, while owners of portions sold on a freehold basis could establish a farming enterprise on a 4,5-ha portion of the farm unit, with a maximum hard-surface footprint of 0,5 ha for a dwelling and other supporting infrastructure.

The results suggest that conventional farming, whether with dryland pastures and livestock or with avocados or macadamia, is not economically viable under the applied assumptions. Higher-value crops are constrained by irrigation water availability and, therefore, by the number of hectares that could be planted, suggesting that scale may be a challenge in justifying working capital and establishment costs. This results in a negative NPV; although the Internal Rate of Return (IRR) is positive for avocado and macadamia, it is sub-optimal given the risk associated with the nature and scope of farming. This represents an opportunity cost, implying that funding losses should be channelled to the next-best option, namely the Reconfiguration Proposal. Subtracting a negative NPV for conventional farming effectively adds to the NPV of the Reconfiguration Proposal, as it represents a saving. The results for the three scenarios are as follows:

Indicator (R'million)	Scenario 1	Scenario 2	Scenario 3
Micro cost-benefit approach: Net Present Value	(R2 539,4)	(R2 545,7)	(R2 550,3)
Micro cost-benefit approach: Benefit-Cost Ratio	0,164x	0,162x	0,161x
Macroeconomic impact approach: Net Present Value	R211,2	R204,9	R200,3
Macroeconomic impact approach: Benefit-Cost Ratio	1,070x	1,067x	1,066x
Internal Rate of Return (IRR) (no reconfiguration)	0,2%	5,8%	7,4%

Under the Micro cost-benefit approach, the decision-relevant test, the capital invested in the Reconfiguration Proposal is not recovered from the recurring value of ongoing farming and conservation operations alone, in any of the three scenarios (benefit-cost ratio ranging from 0,161 to 0,164). Under the broader Macroeconomic impact approach, which also includes construction income, property rates and induced household spending, the Reconfiguration Proposal shows a positive net benefit relative to conventional farming with pastures and livestock, avocado, or macadamia (within the constraints of irrigation water) over 25 years. The questionable feasibility of



conventional farming under irrigation water constraints, compared with the Reconfiguration Proposal, which would incur a loss of only 16,2 ha of low-quality soil, suggests that the Reconfiguration Proposal remains the preferable option among those assessed, based on its broader economic and social contribution.

The analysis also shows that conventional farming with any of the three crops would, on average, sustain 20 jobs per annum (noting that provision can only be made for one crop), while the reconfiguration proposal could sustain 361 jobs per annum. The Reconfiguration Proposal accounts for almost 72,8% of employment, while 27,2% is associated with conservation properties. A breakdown of total employment (permanent and seasonal) indicates that avocado farming is the most labour-intensive, while pastures and livestock are the least labour-intensive. However, the dwellings provide the largest staff complement.



8 ASSESSMENT OF IMPACTS

8.1 Introduction

Various qualitative and quantitative impacts are associated with a property-related development project; these impacts can be divided into the construction and post-construction (operational) phases. Indications are that construction of the proposed reconfiguration (including the introduction of the requisite infrastructure) will be phased over 12 years.

Potential positive socio-economic impacts during construction and/or operations associated with the proposed reconfiguration include the following: -

- Creating new employment opportunities (construction and operations)
- Local economic income (construction and operations)
- Revenue accruing to local authorities (operations)
- Agricultural production and new business opportunities (operations)
- Providing housing and amenities to farmworkers (operations)
- Impact on surrounding property values (operations)

Potential negative socio-economic impacts are as follows: -

- Nuisance factors, such as dust and noise (construction)
- Influx of job seekers (construction)
- Increase in local crime (construction)
- Impact on vehicular traffic (construction and operations)
- Sense of place (operations)

As per NEMA EIA Regulations (2014, as amended – see **Annexure B**), the potential impacts of the Preferred Alternative 1 are assessed and compared with the No-Go Alternative using the impact rating methodology described in **Annexure A**:

- **Preferred Alternative:** 57 Agricultural Farms, 24 Nature Conservation Farms, 110 group housing units in the Farming Village, and Private Open Spaces
- **No-Go Alternative:** No reconfiguration, i.e. the 2021 consolidation and subdivision are retained.

Cumulative impacts refer to other developments and existing activities in the immediate area that could compound any positive or negative impacts associated with the proposed reconfiguration. This usually refers to similar developments whose construction and/or operational phases may overlap with that of the proposed reconfiguration, thus contributing to a cumulative impact on sensitive receptors.

Where applicable, appropriate **mitigation measures** are proposed to reduce the significance of the specific impacts. **Residual impacts** are the significance scores that remain after the implementation of mitigation measures.

8.2 Construction Phase

The negative qualitative impacts during the construction phase mainly involve large construction vehicles on access roads, noise and dust, influx of job seekers, and increased criminal activity in the area. Potential positive impacts include temporary employment and a contribution to local economic development, particularly in the construction, retail, and services sectors. Note that the duration of these impacts is based on a 12-year construction period.

8.2.1 Vehicular traffic due to construction activities

Nature of impact

The movement of large construction vehicles will affect traffic flows and residents along the access routes.

Scope and consequence of impact

The proposed reconfiguration comprises 81 upmarket residential erven and 110 formal housing units for low-income residents, to be retained within the Agri-Village footprint. EDS Structural, Civil, and Transportation Engineers (2026b) carried out a Traffic Impact Assessment for the proposed reconfiguration. The assessment identifies two main access points: one south of the N2 for the 81 farm units, and a service entrance nearer the N2 that will also serve the 110 Agri-Village units (**Figure 29**). Access to the site will be via two public roads: Morrison Road (MR 348), forming the western boundary south of the N2, and OP 6847, which passes through farms north of the N2. Entry to the site will be through Main Road 348 onto existing minor roads. The proposed reconfiguration is estimated to generate an additional 59 peak-hour trips during the morning and afternoon peaks, which is not significant from a traffic engineering perspective.

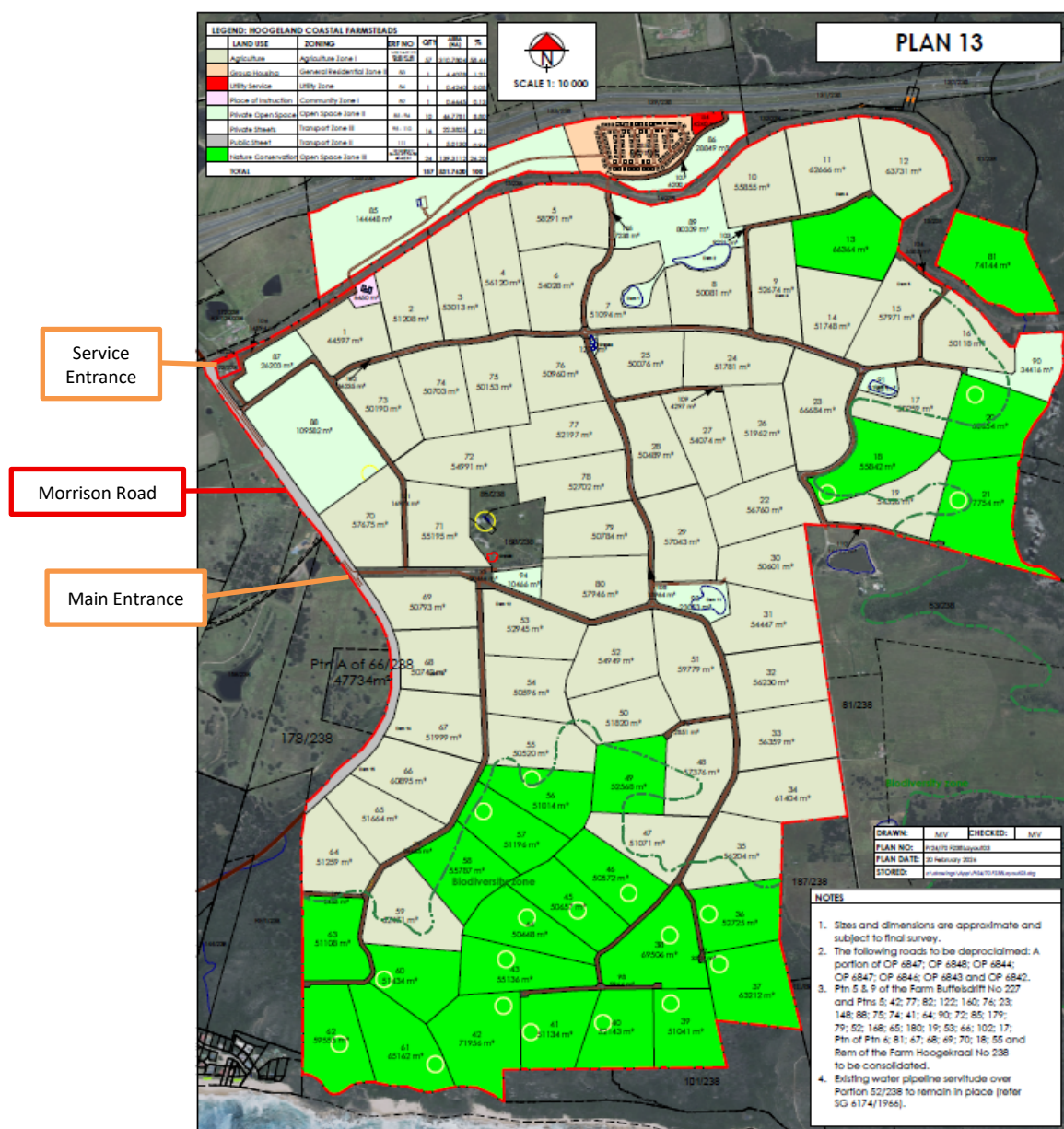


Figure 26: Proposed access roads and entry points for the Hoogeland Farmstead development

Source: EDS Structural, Civil and Transportation Engineers (2026b)



No-Go Alternative

Without the proposed reconfiguration, there will be no traffic impact linked to the site.

Cumulative Impact

Other developments in the immediate area would increase the number of vehicles on the access routes (MR348 and Main Road).

Mitigation measures

The Traffic Impact Assessment recommends that dedicated right- and left-turn lanes be provided at the development accesses on Morrison Road and Main Road, as well as at the service entrance, to reduce congestion at the accesses and improve traffic safety.

Impact Rating

The Transport Impact Assessment did not assess the significance of the impact but recommended implementing mitigation measures to avoid congestion.

8.2.2 Nuisance factors (dust and noise)

Nature of impact

Construction activities generate dust and noise that would affect nearby receptors.

Scope and consequence of impact

During the introduction of bulk services and the construction of top structures, large earth-moving equipment will generate noise and dust. Although these will be confined to the construction site, prevailing winds could carry dust and noise towards nearby properties, thereby affecting residents, their living conditions, and the surrounding environment. The residents most likely to be affected are land users just west of Morrison Road and along the N2 north of the development site (see **Section 2.2**). Significant site preparation will be required for the Farming Village, with dust potentially affecting road users along the N2.

The impact of nuisance factors could be significant in an urban setting where the receptors are close to the development site. However, Hoogeland is in a rural area with significant distances between homesteads, resulting in nuisance factors affecting only a few sensitive receptors.

No-Go Alternative

Without the proposed reconfiguration, there will be no impact linked to the site.

Cumulative Impact

Additional construction activities in the immediate area will compound the nuisance factors if they coincide with or overlap with construction at Hoogeland Farmsteads.

Mitigation measures

Dust and noise emissions during construction should be minimised by implementing a Construction Environmental Management Plan (CEMP) that includes measures and trigger mechanisms to mitigate potential impacts on nearby receptors.

Impact Rating

The impact will be **direct**, with a **low negative** residual significance and a similar cumulative impact.

8.2.3 Influx of job seekers

Nature of impact

An influx of job seekers will lead to competition with residents for employment opportunities.



Scope and consequence of impact

Contractors working on large development projects usually have permanently employed construction workers who move from site to site. These workers are often away from their families for extended periods, depending on the site location. If the latter requires them to reside near the construction site, they may seek out the local community for leisure and social activities. This could lead to an increase in alcohol and drug abuse, or sexual interactions that could lead to an increase in prostitution, unwanted pregnancies and sexually transmitted diseases (STDs), including HIV. All these may impact local families and their social structures, but can also damage the construction workers' family structures at home.

An influx typically involves individuals from outside the Municipal area who flock to the construction site in search of casual employment. While the rise in job seekers may not cause direct social impacts, this movement can still lead to indirect social issues, including harm to community networks, increased crime, and disruption of social services. Since construction is limited to a specific period, non-local workers might be stranded in the area afterwards, leading to increased competition for jobs, housing, and social services.

Given the project's scale and nature, contractors with existing workforces are likely to be engaged. During the building phase, workers with earth-moving and construction skills can be hired, with further opportunities in security, transport, and related fields. The George area has high unemployment, with many low-income communities nearby, especially Pacaltsdorp and Thembaletu, from which job seekers are likely to come. Some farm workers currently residing on the properties may also seek employment.

No-Go Alternative

Without the proposed reconfiguration, there will be no impact on the site, but other construction activities in the area may attract job seekers.

Cumulative Impact

Given the high unemployment in the area, multiple construction projects are likely to draw job seekers from the local communities.

Mitigation measures

Contractors must commit to employing local residents.

Impact Rating

The impact will be **direct**, with a **low negative** residual significance and a similar cumulative impact.

8.2.4 Increase in local crime

Nature of impact

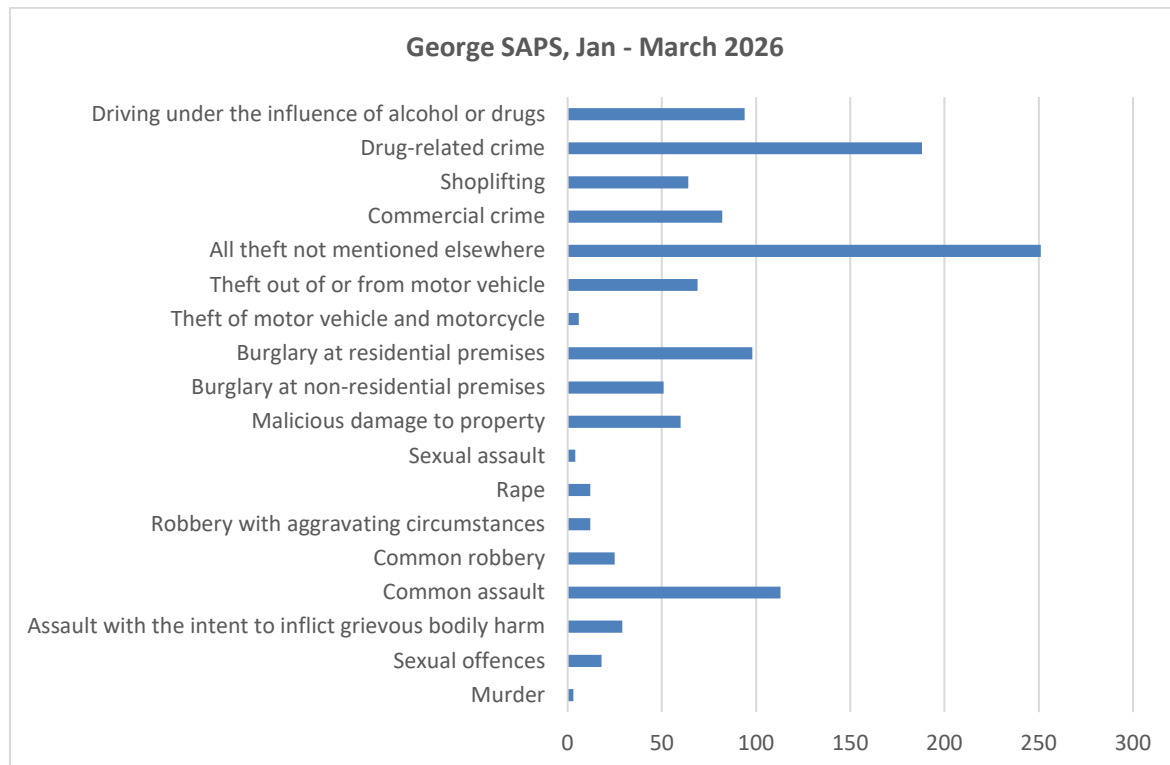
Construction activities and workers may increase criminal activities in the surrounding area.

Scope and consequence of impact

The presence of construction workers and vehicles often increases the risk of criminals gaining unauthorised access to the construction site, which can lead to increased criminal activity in the vicinity. This may involve petty theft on-site, theft of building materials, the sale of sensitive security information, or burglaries and thefts at nearby properties. According to George SAPS, there were 200 contact crime cases from January to March 2026, consisting mainly of 142 cases of Common assault and Assault with intent to inflict grievous bodily harm, and 142 cases of Common robbery and Robbery with aggravating circumstances. There were also 98 burglaries at residential locations and 51 at non-residential sites, alongside 60 cases of Malicious damage and 69 thefts from or out of motor vehicles. Drug-related crimes represented 188 cases, including 94 cases of driving under the influence. Other serious crimes - such as various thefts not detailed elsewhere, Commercial crime and shoplifting - totalled 397 cases in this quarter (SAPS, 2026).

No-Go Alternative

Without the proposed reconfiguration, no increase in criminal activities will be linked to the site, but it will remain sensitive to other activities.



Cumulative Impact

Construction activities tend to attract criminals seeking easy targets. While each new development may raise the risk of crime, effective security measures can confine incidents to the site with minimal broader effects.

Mitigation measures

The total development footprint is too large to fence in, but on-site crime could be mitigated through effective security measures and access controls. Effective collaboration between the Developer and contractors is essential to safeguard the area around the proposed construction site. Implementing on-site security measures—such as perimeter fencing, controlled access points, security guards, and regular patrols—would help minimise potential risks.

Impact Rating

The impact will be **direct**, with a **low negative** residual significance and a similar cumulative impact.

8.2.5 Creating local economic income and employment during construction

Nature of impact

The economies of the Western Cape, Garden Route District and George Municipality will benefit from temporary employment, procurement of goods and services, and spending of workers' wages and salaries.

Scope and consequence of impact

As noted in **Section 7.10**, the economic impact of construction spending is measured using an income-and-output multiplier. This multiplier illustrates the temporary job opportunities created and the influence on the household incomes of workers directly or indirectly engaged in construction. The impacts are classified as direct, indirect, and induced, with induced impacts arising from spending on salaries and wages within the local economy.

The construction of the main structures for the farmworker village, farmsteads, manager residences, and dwellings on conservation parcels, as well as the establishment of small farms, is expected to take around 12 years. Using a conservative estimate, the total capital expenditure in nominal terms over the development cycle until completion



is R4 899,8 million, or an average of R408,3 million per annum. The highest capital spend, R858,2 million, is expected in 2033. Most capital expenditure in the first three years relates to infrastructure.

An estimated R4 899,8 million in nominal capital investment could generate R12 323,9 million in new business sales, referred to as the production (or output) that creates the demand for business activity during construction. This translates to an average of R821,6 million per annum in nominal terms over 15 years. The increase in production output could add R3 898,2 million (net of import leakage) to the **GGP** of the Western Cape, with the George Municipal area a direct and significant beneficiary. This translates to an average of R259,9 million per annum in nominal terms over 15 years. Capital spending on the project over the construction period could sustain about 17 106 (rounded) employment opportunities (direct, indirect, and induced). This translates to sustaining an average of 1 140 jobs per annum over 15 years. Employee spending on salaries and wages associated with the construction elements of the Reconfiguration Proposal could increase economic income by R1 866,1 million over 15 years, translating to R124,4 million per annum on average in nominal terms (escalated values).

Note that employment creation does not necessarily imply **NEW** jobs, but rather sustainable employment for employees of contracted service providers who are not operating at full capacity. If the company doesn't have spare capacity, it would create **NEW** employment. The recruitment process should also promote gender equality by employing women wherever possible.

No-Go Alternative

Without the proposed reconfiguration, local income and jobs will not see the potential boost. Still, other nearby projects will support the local economy regardless of this proposal.

Cumulative Impact

Additional development projects in the area could enhance local economic growth and generate more jobs.

Mitigation measures

No mitigation applies as it represents a positive direct and indirect impact.

Impact Rating

Our assessment suggests that the **direct** and **indirect** impacts will be **medium positive**, also from a cumulative perspective.

8.3 Operational Phase

The operational phase raises concerns about the sense of place, traffic, and surrounding land values. On the positive side, the reconfiguration will generate more employment and income, improve agricultural land use, offer new opportunities for agricultural businesses, and create additional housing and amenities for farmworkers. George Municipality will also gain revenue from property rates and utility charges.

8.3.1 Sense of place

Nature of impact

The proposed reconfiguration will impact the sense of place for surrounding land users.

Scope and consequence of impact

Sense of place typically describes how individuals perceive and relate to locations such as streets, neighbourhoods, cities, or regions. This perception can affect their well-being, interactions, descriptions of the place, and the value they assign to it. A sustainable community functions like a living system where human, natural, and economic components are interconnected and mutually supportive (Roseland, 1998). Community members usually recognise and uphold people's sense of well-being, which encompasses belonging, connection to the place, self-esteem, safety, and harmony with nature.



Jenna Lavin's 2026 **Archaeology Impact Assessment** (AIA) included a Heritage Survey of all structures within the project site. The report noted that the area has experienced extensive cattle grazing and cultivation, now mainly covered in grass. It is predominantly flat, lightly populated, and features small worker "villages" with informal structures and access paths. The survey identified several significant resources, including burial grounds, certain contextual structures, and ruins. The Hoogekraal Farm werf precinct is a crucial heritage site, yet it is not included in the proposed reconfiguration. Overall, the archaeological sensitivity of the development zone is LOW, except for small areas marked as VERY HIGH.

Rüde (2026) indicates that Hoogeland occupies a transitional landscape of cultivated farmland, fynbos hills and open plains, a setting in which value lies not in any single feature but in the continuity of the whole. The development proposal responds to that continuity. Further context is provided by considering the site's environmental, architectural and landscape appropriateness.

Environmental Appropriateness, achieved through environmental restraint, is built into the land-use structure, not appended to it. As indicated previously, the Eco Properties (within the more natural fynbos areas of the site) are limited to a 2 000 m² developable area per five-hectare farm, inclusive of all buildings and hard surfaces, meaning that over 96% of each such farm is retained as natural landscape. Buildings and roads will follow existing contours and drainage patterns to minimise earthworks; wetlands, watercourses, mature trees and fynbos clusters are to be retained and designed around; and riverine, dam and wetland edges must be protected, rehabilitated and planted exclusively with indigenous and preferably endemic species. Rainwater harvesting, greywater reuse, rooftop solar, passive design and locally sourced materials are required where feasible. Topsoil is to be stripped, stored and reinstated; alien species are excluded; threatened species are protected throughout all construction phases.

According to Rüde (2026), **Architectural Appropriateness** refers to a guideline that commits the development to a Contemporary Agricultural Vernacular: simple barn-and-farmhouse forms, modest footprints, low profiles, pitched, mono-pitched or skillion roofs, restrained detailing, and a shared palette of materials and colours across dwellings, outbuildings, and common structures. Outbuildings must follow the primary dwelling in material and proportion, and agricultural infrastructure remains subordinate to it. The result is an architecture that reads as a continuation of the Cape rural building tradition rather than as an insertion into it. Because the palette and massing rules apply equally to private and communal buildings, the estate will register in the wider landscape as a coherent agricultural settlement rather than a collection of individual statements — the same visual logic that makes existing Garden Route farmsteads sit comfortably in their setting.

In addition, Rüde (2026) refers to **Landscape Appropriateness**, noting that to the north the site adjoins an established agricultural landscape and is conceived as a seamless continuation rather than a break. On the Agri Properties, small crops, grazing paddocks and small-scale livestock farming will carry that working-farm character across the boundary and through the estate, so that Hoogeland reads as part of the productive landscape it borders. Within this framework, the wider landscape approach is one of design with nature: rehabilitation, conservation and responsiveness, with indigenous planting selected from a curated estate palette of Cape trees, shrubs, proteas, ericas, buchus and restios. Formal lawns and exotics are excluded from the natural portions of Eco Properties in favour of fynbos and meadow planting. Roads, driveways, trails, and equestrian paths are permeable, narrow, and contour-following, with bioswales and biofilters that slow and clean stormwater before it reaches watercourses. Open space, trails and retained vegetation are structured to maintain habitat connectivity across the property, so that ecological corridors survive the introduction of dwellings rather than being severed by them. Buffer zones between farms and sensitive areas prevent both overcrowding and habitat fragmentation.

No-Go Alternative

The current sense of place will be retained, but other nearby developments would have an independent impact.

Cumulative Impact

Additional construction activities in the immediate area will compound the impact of the Hoogeland Farmsteads on the rural sense of place.

Mitigation measures

The Heritage Impact Assessment concluded that the proposed project will not negatively impact significant archaeological resources, on condition that:



- The Hoogekraal Farm Werf precinct is excluded from the development activities.
- The structures graded IIIC are retained.
- No construction activities should impact the areas of high archaeological sensitivity. An archaeologist must monitor any construction activities within these areas.
- The current informal cemetery will be formalised by the erection of a fence, with access guaranteed throughout the project.
- A thorough survey of the sea-cut caves in the cliffs should be undertaken to determine their scientific value and to inform a Conservation Management Plan to ensure the appropriate management of these resources for the life of the project, should it be deemed necessary.

Impact Rating

Rüde (2026) concludes that Hoogeland proposes a low-intensity, tightly governed form of rural development in which the vast majority of the land remains natural or productive, and ecological function is protected by enforceable limits rather than aspiration. Therefore, the impact will be **direct**, with a **low positive** significance and cumulative impact.

8.3.2 Increased vehicular traffic

Nature of impact

Residents and additional agricultural activities will increase vehicular traffic along the access routes.

Scope and consequence of impact

The proposed plan entails 81 upscale residential plots and 110 formal housing units for low-income residents within the agri-residential village. These low-income households typically have very low vehicle ownership and employment rates. The **Traffic Impact Assessment** (EDS Structural, Civil and Transportation Engineers, 2026) for the proposed reconfiguration identifies two main access points: one south of the N2 for the 81 farm units, and a service entrance near the N2 that will also serve the 110 agri-village units. Access to the area will also be provided by two public roads: Morrison Road (MR 348), forming the western boundary south of the N2, and OP 6847, which passes through the farms north of the N2. Entry to the site will be via Main Road 348, connecting to the existing minor roads.

The Traffic Impact Assessment indicates that the new recreational facilities—such as a polo field, show-jumping arena, horse trails, and communal spaces—are expected to generate only occasional traffic surges, mainly on weekends when residential trip-making is at its lowest. Other proposed uses, including small-scale farming, are primarily for residents' private use and will not increase external traffic. The proposed reconfiguration is expected to generate an additional 59 vehicle trips during morning and afternoon peak hours. This increase is minimal from a traffic engineering standpoint. The analysis shows the intersections can handle this traffic volume comfortably without upgrades, using side-road stop control.

No-Go Alternative

Without the proposed reconfiguration, there will be no direct traffic impact linked to the site.

Cumulative Impact

Other developments in the immediate area would increase vehicle volumes along the access routes.

Mitigation measures

The Traffic Impact Assessment suggests installing dedicated right- and left-turn lanes at the development accesses on Morrison Road and at the service entrance to reduce congestion and enhance traffic safety.

Impact Rating

The Transport Impact Assessment did not score the impact's significance.



8.3.3 Provision of housing and amenities to farmworkers

Nature of impact

A residential village for farmworkers with tenure rights will include 110 units and various amenities.

Scope and consequence of impact

The proposed Hoogeland Farming Village is a group housing project comprising 110 residential units (17 units/ha), available only to beneficiaries with established tenure rights in the application area. The property lies between the N2 National Road and the railway line. The proposal is to create a sustainable village with recreational facilities, communal food gardens and a community hall. The existing Hoogekraal Primary School on Portion 10 of Farm No 238 will be retained and accommodated on (new) Erf 82. Beneficiaries will receive a constructed house with ownership via sectional title. The Farming Village will be developed first, and beneficiaries will be relocated there before the Hoogeland Coastal Farmsteads are developed and occupied.

The proposed Hoogeland Farming Village aims to consolidate informal housing clusters on the Hoogeland properties into a single, serviced, and dignified residential community. This initiative promotes an inclusive rural economy aligned with SPLUMA principles of spatial justice, resilience, and efficiency. It will provide essential infrastructure, including water, sanitation, energy, waste management, and social facilities such as a crèche, community hall, training centre, and school (Marika Vreken, 2026). Relocating ESTA-holders to this formalised village will enable organised skills development, enterprise support, improved access to services, improved livelihoods, secure tenure, and reduced social vulnerability.

No-Go Alternative

Without the proposed reconfiguration, the farm workers will retain tenure on the farm properties but will have no prospect of improving their living conditions.

Cumulative Impact

Housing and amenities provided by other developments in the area may improve the living conditions of other farmworkers.

Mitigation measures

No mitigation applies, as this represents a positive impact.

Impact Rating

The impact would be **direct** and **highly positive** for the 110 beneficiaries, but **low positive** in the bigger picture (including cumulative effects).

8.3.4 Increased agricultural production and new enterprises

Nature of impact

The proposed reconfiguration will contribute to sustainable agricultural production through an outgrower model.

Scope and consequence of impact

The Reconfiguration Proposal for the Hoogeland footprint suggests splitting the 529 ha area into 57 small-scale farms, each at least 5 ha, together with the 24 conservation parcels. This results in 81 subdivided freehold properties. It preserves agricultural activity, allowing owners to develop a farming enterprise on 4,5 ha of each farm.

The Agricultural Viability Analysis (**Section 6**) indicates a trend towards planting more profitable crops, such as avocados and macadamia, to replace cattle grazing and feed production. Although about 40% of the Hoogekraal footprint can support these high-value crops, limited irrigation capacity restricts the viable farming area to 25 ha for avocados or 23 ha for macadamia. Both crops yield negative NPVs and modest IRRs, but perform better on a smaller scale than traditional dryland pastures and livestock options. The analysis indicates that, over 25 years, the net benefits of the Reconfiguration Proposal exceed those of conventional pasture and livestock farming or crop cultivation under current irrigation limits. Given the water restrictions, the proposed reconfiguration is expected to generate greater socio-economic advantages than pasture and livestock.



The Reconfiguration Proposal assumes that avocado or macadamia farming will remain within irrigation water limits, with the remaining land used for livestock pastures. It notes that small farms probably won't generate sufficient profit to justify investment. To address this, proposals suggest forming a co-operative or outgrower group to pool owners' efforts, thereby achieving the economies of scale necessary for a profitable and sustainable farming enterprise. The Homeowners Association could lead this effort, promoting unity and coordination among owners, or a group of owners could take the initiative to develop production and agro-processing opportunities, including a small off-site facility near the Hoogeland.

No-Go Alternative

The status quo will likely cause the gradual cessation of farming activities, which are currently neither productive nor financially sustainable.

Cumulative Impact

Losing several portions of productive agricultural land could negatively affect the area's ability to meet the local Municipality's growing food needs.

Mitigation measures

No mitigation applies, as this represents positive impacts.

Impact Rating

Based on the Agricultural Viability Analysis, the **direct** impact on agricultural production will be **low and positive**, with a similar cumulative impact given the water restrictions.

8.3.5 Impact on surrounding property values

Nature of impact

The proposed reconfiguration may affect the perceived value of properties in the surrounding area.

Scope and consequence of impact

Factors such as supply and demand, interest rates, local economic growth or contraction, population growth, and changes in disposable income-to-debt ratios shape a property's value. Relative property values also depend on supply and demand. As these factors and their benefits change, so do the relative prices reflected in land values. Future land value in an area also depends on spatial planning policies, land availability for various uses, the location's importance, and the perceived desirability of the surrounding area as a good investment with growth potential.

The proposed reconfiguration could increase the perceived agricultural value of surrounding properties, depending on water constraints and other factors that may limit production and, consequently, the feasibility of such an enterprise. The Hoogeland proposal will not directly affect the value of surrounding farms, but it may draw attention to the potential of high-value crops, although this would be limited by soil suitability and water availability. However, Hoogeland is premised on an existing subdivision approval, which further affects future value. It is unlikely that any land use other than agriculture would be permitted on adjacent farms, which could curtail value.

No-Go Alternative

Local property values would adjust and rebalance independently of the proposed project.

Cumulative Impact

Additional nearby developments might worsen negative effects on land users by affecting the sense of place and traffic patterns. Conversely, these developments could boost the perceived value of agricultural properties through heightened interest and increased agricultural activity.

Mitigation measures

A positive impact would not require mitigation measures, but any reduction in the impact on the sense of place and traffic will enhance the perceived value of surrounding properties.



Impact Rating

The residual impact will be **indirect** and **low positive** if a viable farming enterprise can be established. Given that other similar developments are unlikely, the cumulative impact would remain low positive.

8.3.6 Local economic income and employment impact during operations

Nature of impact

The project will sustain existing employment and create new opportunities.

Scope and consequences of impact

As outlined in **Section 7.10**, maintaining agricultural activities and low-impact amenities on the conservation parcels involves continual operational costs throughout the project's lifecycle. The operational impact was evaluated over a 25-year period (2030 to 2054) for dryland farming and livestock, as well as for crops such as avocados and macadamia, using a standard approach that excluded the Reconfiguration Proposal.

The assessment suggests that an operational investment of approximately R1 992,1 million could generate around R5 673,4 million in new business sales, averaging R226,9 million per annum over 25 years in nominal terms. This increase in production could add R2 543,7 million (excluding import leakage) to the Western Cape's GGP, averaging R101,7 million per annum over 25 years. The project could create about 6 462 jobs (direct, indirect, and induced positions) during its operational phase, averaging 258 jobs annually over 25 years. These employment opportunities may include livestock or crop management, landscaping, and garden services. Salaries paid to these employees could boost economic income by R1 080,2 million over 25 years (R43,2 million per year).

No-Go Alternative

Without the proposed development, the local economy will not be supported, and no jobs will be created.

Cumulative Impact

Several new projects could create critical mass or economies of scale for companies producing new goods and services, expanding employment opportunities for residents.

Mitigation measures

No mitigation applies as it represents a positive impact, but local procurement should be prioritised and should promote gender equality, with women employed wherever possible.

Impact Rating

Our assessment indicates a **direct** and **indirect low positive** impact, with a similar cumulative effect.

8.3.7 Revenue from property rates accruing to local authorities

Nature of impact

The George Municipality will receive monetary benefits via property rates.

Scope and consequence of impact

The George Municipality will apply Agricultural property rates to undeveloped areas, including conservation parcels. Once construction begins on dwellings and other structures, residential property rates will be based on the improved value of the 0,5 ha hard-surface footprint. The following assumptions were used to calculate property rates for dwellings and agricultural land.

- Property rate tariffs as per the George Municipality for agriculture (2025/2026). Agricultural property rates are determined based on the following bare land value:
 - R100 000/ha for dryland pasture and livestock
 - R650 000/ha for macadamia farming



- R450 000/ha for avocado farming
- Residential property rates of R1 650 000/ha is applied to the 0,5-ha representing the hard surfaces (including the dwelling(s))
- Property rates are applied per annum and indicated at nominal prices reflecting a 4% annual increase.

The following table illustrates the rates accruing to the George Municipality over 25 years based on the proposed reconfiguration. A rate forecast with an average annual escalation of 4% from the first year is applied. Over the first 25 years of operations, an estimated R154 million could accrue to the George Municipality in nominal terms from the residential components, plus another R29,4 million from the agricultural property rates for the small-scale farms and conservation areas (**Table 40**). In contrast, the property rate income for dryland pasture and livestock (at R100 000/ha) would yield only R0,7 million on 257 ha over 25 years in current terms.

Fiscal and monetary revenue benefits (R'million)	R182,7
Property rates (small-scale farming units and conservation residential dwellings)	R154,0
Property rates (agriculture associated with small-scale farms and conservation)	R29,4
Property rates (agriculture associated with dryland pasture and livestock, avocado or macadamia) (no reconfiguration)	(R0,7)

Note: The negative property rates demonstrate the offset of existing agriculture to the rates applicable to the development proposal

No-Go Alternative

Without the suggested reconfiguration, the George Municipality would not receive the expected monetary and fiscal gains from the farming and conservation units.

Cumulative Impact

Additional development projects in the region could expand George Municipality's revenue base.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact Rating

The reconfiguration of the Hoogeland development would have a **direct** and **indirect, highly positive** impact on local income compared to conventional farming on the Hoogeland footprint itself. A similar cumulative effect would apply, again relative to conventional farming on the same footprint.



8.4 Summary of impacts & recommendations

8.4.1 Summary of impacts

This report identifies and discusses several potential positive and negative socio-economic consequences, and it is important to determine whether and how the negative impacts could be mitigated. Cumulative impacts usually relate to other developments or activities in the immediate area that could amplify the positive or negative effects of the proposed reconfiguration of the Hoogekraal Farm during construction and operation. In this instance, cumulative impacts are considered only for similar projects in the immediate area that would require subdivision of existing agricultural land. Rezoning agricultural land for residential or mixed-use purposes in the surrounding area is unlikely to be approved, but may be considered for hospitality and tourism-related uses in isolated cases.

The following table summarises the socio-economic impacts associated with the proposed reconfiguration and their corresponding significance after implementing mitigation measures (i.e., the residual impact). Note, the table shows only impacts not rated by other specialists.

Nature of the Impact	Rating after mitigation (Residual impact)	Cumulative
Construction		
Traffic flows along access roads	Refer to Transport Impact Assessment	
Nuisance factors (dust and noise)	Low (-)	Low (-)
Influx of job-seekers	Low (-)	Low (-)
Increase in local crime	Low (-)	Low (-)
Economic income and employment opportunities	Medium (+)	Medium (+)
Operations		
Increased traffic flows along access roads	Refer to Transport Impact Assessment	
Sense of place	Low (+)	Low (+)
Provision of housing and amenities to farmworkers	Low (+)	Low (+)
Agricultural production and new enterprises	Low (+)	Low (+)
Surrounding property values	Low (+)	Low (+)
Local income and employment opportunities	Low (+)	Low (+)
Revenue for public authorities (relative to conventional farming)	High (+)	High (+)

Potential positive impacts – Preferred Alternative

- **Economic income & employment:** An estimated initial capital investment of R4 899,8 million could generate R12 323,9 million in new business sales, averaging R821,6 million annually in nominal terms over 15 years. This increased production output could contribute R3 898,2 million (net of import leakage) to the Western Cape's GGP, averaging R259,9 million per year in nominal terms over 15 years. It could sustain approximately 17 106 direct, indirect, and induced jobs, or about 1 140 jobs annually. Additionally, employee salaries and wages paid during the construction phase of the Reconfiguration Proposal could boost economic income by R1 866,1 million, averaging R124,4 million per year (escalated values) over 15 years.

An operational investment of approximately R1 992,1 million could generate around R5 673,4 million in new business sales, averaging R226,9 million annually over 25 years in nominal terms. This increase in production could add R2 543,7 million (excluding import leakage) to the Western Cape's GGP, averaging R101,7 million per year over 25 years. The project could create about 6 462 jobs (direct, indirect, and induced positions) during its operational phase, averaging 258 jobs annually over 25 years. These employment opportunities may include livestock or crop management, landscaping and garden services. Salaries paid to these employees could boost economic income by R1 080,2 million over 25 years (R43,2 million per year).



- **Provision of housing and amenities for farmworkers:** The proposed Hoogeland Farming Village is a group housing project comprising 110 residential units (17 units/ha), available only to beneficiaries with established tenure rights in the application area. The village will have recreational facilities, communal food gardens and a community hall, and the existing Hoogekraal Primary School will be retained.
- **Agricultural production and new enterprises:** Although about 40% of the Hoogekraal footprint can support alternative crops such as avocados and macadamias, limited irrigation capacity restricts the viable farming area to 25 ha for avocados or 23 ha for macadamias. Both crops yield negative NPVs and modest IRRs, but perform better on a smaller scale than traditional dryland pastures and livestock options.
- **Surrounding property values:** The proposed reconfiguration properties could increase the perceived value of nearby properties as they represent a general upgrade of the area, but the rezoning of other agricultural land in the area for similar purposes is unlikely. It would also draw attention to the potential of high-value crops, although this would be limited by soil suitability and water availability. However, it should be noted that Hoogeland is premised on an existing subdivision approval, which further impacts future value. It is not anticipated that any land use other than agriculture would be permitted on adjacent farms, which could curtail value.
- **Revenue accruing to the local authorities:** Over the first 25 years of operations, an estimated R91,1 million could accrue to the George Municipality in nominal terms from the residential components, plus another R29,4 million from the agricultural property rates for the small-scale farms and conservation areas. In contrast, the property rate income for dryland pasture and livestock would yield only R0,7 million on 257 ha over 25 years in current terms.
- **Sense of place (operations):** The proposed reconfiguration represents a low-intensity, tightly governed form of rural development where the majority of the land remains natural or productive, and the ecological function is protected.

Potential negative impacts – Preferred Alternative

- **Dust and noise (construction):** Site preparation and the introduction of services will create dust and noise that would affect nearby receptors. This impact could be significant in an urban setting where the receptors are close to the development site. However, Hoogeland is in a rural area with significant distances between homesteads, resulting in nuisance factors affecting only a few sensitive receptors.
- **The influx of job seekers (construction):** This typically relates to individuals from outside the Municipal area who flock to the construction site in search of casual employment. Such individuals would compete with residents for employment, housing, and other social services and could affect the social fabric of local communities. However, given the location of the Hoogeland site and the relatively high unemployment in George, job seekers will mainly originate from nearby communities.
- **Increase in crime levels (construction):** On-site crime could include on-site petty theft, theft of building materials, the sale of security information, or burglary and theft at nearby properties. The total development footprint is too large to fence in, but on-site crime could be mitigated through effective security measures and access controls.

8.4.2 Mitigation measures

Potential negative impacts can be mitigated by adopting the measures recommended by various specialists, which the Developer should consider and implement. Monitoring and evaluating socio-economic impacts, along with ongoing assessment of the outcomes, would provide further insights into the social and economic fabric and the effects on surrounding land users. The following mitigation measures related to the socio-economic context are proposed and should be incorporated into an Implementation Plan as part of the Construction Environmental Management Plan (CEMP) and/or the Operational Environmental Management Plan (OEMP).



Pre-construction & Construction (CEMP)	
- Establish a communication protocol to inform residents and surrounding landowners of activities, timelines and intended impacts (pre-construction and construction) and utilise signage to ensure effective management of traffic across the farming footprint. - The developer of the farm worker village should use local labour from the George area as a mechanism to support the local economy. - Owners who engage in low-level commercial or lifestyle farming activities should consider and be encouraged to use the farm workers who are resettled from part of the Hoogkraal Farm to the new farmworker village.	
Construction phase	
Nuisance factors (dust and noise)	Implement recommendations from relevant specialists to mitigate negative impacts related to nuisance factors.
Influx of job seekers	Contractors should hire George (local) residents whenever possible (construction) and manage any potential influx of job-seekers, and in this way prevent loitering across the expanse of the farming footprint.
Increase in local crime	Owners and contractors should agree on mechanisms to secure construction sites to prevent theft, given the expense of the small-scale farming units and the likely spread of construction activity over a wide area.
Operational phase	
Sense of place	Implement recommendations from relevant specialists to mitigate negative impacts related to visual, traffic, and nuisance factors on the sense of place.

8.4.3 Impact statement

Several socio-economic impacts of the proposed reconfiguration were identified. The positive impacts include providing housing and amenities for 110 farmworkers with tenure rights, increasing agricultural production of high-value crops such as avocados and macadamias (pending water availability). The project would benefit the George Municipality by maintaining employment among existing contractors and triggering successive rounds of spending, thereby generating income for the local economy. An estimated R3,3 billion in capital investment could contribute R2,6 billion (net of import leakage) to the GGP of the Western Cape during construction, with the George economy being a significant beneficiary. The project could sustain approximately 11 430 direct, indirect, and induced employment opportunities.

An estimated R2 billion in operational income could generate R2,5 billion (net of import leakage) in nominal terms over 25 years for the GGP of the Western Cape economy. It could also create 6 462 direct, indirect, and induced employment opportunities over 25 years, with salaries that could boost the economic income by R1 080,2 million over 25 years, or roughly R43,2 million per year.

Potential (minor) negative impacts include increased traffic, loss of sense of place, nuisance factors, and an influx of job seekers during construction. If the general farming footprint is well managed and the recommended mitigation measures are implemented, the significance of these impacts would be low to moderate.

Our assessment indicates that the socio-economic benefits of the proposed Reconfiguration outweigh any potential socio-economic drawbacks as mentioned above. As a result, no fatal flaws from a socio-economic perspective have been identified or are expected for the proposed reconfiguration of the Hoogeland Farmstead development.



8.5 Social investment and monitoring initiatives

8.5.1 Social investment and community engagement

Social investment initiatives have become a standard component of development proposals submitted to relevant government departments at the local, provincial, and national levels. Developers are required and expected to specify how the reconfiguration project will contribute to the welfare of surrounding communities through social investment initiatives.

Communities' development priorities need to align with project developers' social investment goals. Multi-Purpose Business Solutions has developed a framework to guide developers in identifying initiatives that could be part of a social investment programme. **Figure 30** shows a matrix with four quadrants based on the type of intended investment and the Developer's "capital" contribution that can be considered for the social investment. The text highlighted in bold reflects the Developer's commitment to providing housing for farm workers and to adding a sports field within the community precinct.

	Abstract capital	Physical capital
Active Investment	• Grants • Bursaries • In-house training • Education • Development of small, medium and micro businesses • Youth training initiatives • Environmental initiatives (nursery and training initiatives) • Enterprise development opportunities	• Upgrading of community health facilities (e.g. clinics) • New, upgrading and maintenance of sports fields • Construction of new skills development/training facilities • Provision of housing • Provision or upgrading of infrastructure (with advantage for the community) • Development or conversion of existing buildings to multi-purpose centres • Community gardening project and farming projects
Passive Investment	• Establishment of community trust funds for the environment and development • Provision of guarantees • Advancing preferential terms	• Build a facility and transfer ownership to a community trust for application to the community • Maintenance of community facility

Figure 27: An illustrative matrix of social investment options for developers.

Source: Multi-purpose Business Solutions©

Notes:

Active and passive investments of abstract capital involve committing resources such as time and funds to various initiatives. Active investments include direct contributions to programs like bursaries and in-house training. Meanwhile, passive investments involve directing funds into a community trust or similar entity that disburses them to third-party community projects.

Active and passive investments in physical capital involve different approaches. Active participation entails directly investing in community needs by creating or upgrading facilities such as health care centres, schools, and recreational and sports amenities. In contrast, passive investment involves establishing a community facility and then handing it over to a trust or similar entity, whose sole role is to manage and maintain it for the community.

The term "social investment" has a broad meaning here. It distinguishes between (1) physical and abstract capital, which refers to actual funds invested in assets versus "in-kind" investments in people, and (2) active and passive investments, indicating the level of the Developer's direct involvement in the community or through third parties, such as entities or other vehicles. Developers can select any single initiative or combination of the social investment initiatives shown in **Figure 30**. To maximise impact, clearly specify the type and scope of the social investment, as well as whether a passive or active approach will be used.



8.5.2 Monitoring framework

A crucial part of assessing a project's success from a socio-economic perspective is continuously observing, reviewing, and evaluating processes to ensure they fulfil socio-economic commitments. Regular monitoring and evaluation are vital to achieving milestones and meeting the project's socio-economic objectives. The following activities are designed to maintain consistent and effective monitoring practices.

1. Regular field visits to the project and stakeholders benefiting from the project
2. A review after the first six months of implementation to assess the overall progress and achievement of the objectives and milestones related to the specified targets of employment, skills development, small business development and capacity building.

To monitor performance in relation to the fulfilment of socio-economic development obligations, the contractor must record and report on progress against the agreed socio-economic commitments. Typical reporting details should include:

- Actual total expenditure on Total Procurement;
- Actual total expenditure on Procurement of Materials;
- Actual total expenditure on Sub-contracting;
- Actual total employment categorised according to standard Occupational Categories; and
- Actual total payroll.

The successful implementation and development of the proposed project will ultimately be evaluated based on its contributions during construction and operations to social development and the economic goals of employment creation, skills development and training, small business development, and capacity building in the local George area. The following Key Performance Areas (KPA's) are outcomes derived from the scope of social engagement activities.

- Procurement from, or sub-contracting to, local enterprises;
- Procurement from, or sub-contracting to enterprises from outside the local area;
- Procurement of local materials/resources;
- Procurement of materials from outside the Municipality;
- Recruitment process that promotes gender equality



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ANNEXURE A: CRITERIA FOR SPECIALIST ASSESSMENT OF IMPACTS

The following methodology has been applied to the prediction and assessment of impacts. Potential impacts have been rated in terms of the direct, indirect, and cumulative nature of the impact:

- **Direct** impacts – are impacts that are caused directly by the activity and generally occur at the same time and the place of the activity. These impacts are usually associated with the construction, operation or maintenance of an activity and are generally obvious and quantifiable;
- **Indirect** impacts – of an activity are indirect or induced changes that may occur because of the activity. These types of impacts include all the potential impacts that do not manifest immediately when the activity is undertaken or which occur at a different place because of the activity;
- **Cumulative** impacts result from the incremental impact of the proposed activity on a common resource when added to the impacts of past, present, or reasonably foreseeable future activities. Cumulative impacts can occur from the collective impacts of individual minor actions over a period and can include both direct and indirect impacts.

The significance of each potential impact, with and without the implementation of the proposed mitigation measures, will be assessed based on the following variables (evaluation components):

- **Spatial extent** – The size of the area that will be affected by the impact;
- **Intensity (or Magnitude)** – The anticipated severity of the impact;
- **Duration** – The timeframe during which the impact will be experienced;
- **Probability** – The probability of the impact occurring;
- **Reversibility** – The “reversibility” of the environmental impacts of the proposed development after project cessation or decommissioning; and
- **Irreplaceability** – The “irreplaceability” of natural characteristics in the area that may be impacted by the proposed development.

Using the criteria above, the impacts will further be assessed using quantifiable values as described below:

Criteria	Description	Quantitative Rating
Duration	Temporary (less than a year)	1
	Short term (1 to 6 years)	2
	Medium term (6 to 15 years)	3
	Long term (the impact will cease after the operational life of the activity)	4
	Permanent (mitigation will not occur in such a way or in such a time span than the impact can be considered transient)	5
Spatial extent	Site specific	1
	Local (less than 2 km from the site);	2
	Regional (within 30 km of the site)	3
	National (beyond Provincial boundaries and within National boundaries)	4
	International / Transboundary (Beyond National boundaries)	5
Intensity Applicable to Negative Impacts (at indicated spatial extent)	None (Biophysical and/or social functions and/or processes will remain unaltered)	0
	Very Low (Biophysical and/or social functions and/or processes might be negligibly altered)	2
	Low (Biophysical and/or social functions and/or processes might be slightly altered)	4



Criteria	Description	Quantitative Rating
	Medium (Biophysical and/or social functions and/or processes might be notably altered)	6
	High (Biophysical and/or social functions and/or processes might be considerably altered)	8
	Very High (Biophysical and/or social functions and/or processes might be severely altered)	10
Intensity Applicable to Positive Impacts (at indicated spatial extent)	None (Biophysical and/or social functions and/or processes will remain unaltered)	0
	Very Low (Biophysical and/or social functions and/or processes might be negligibly enhanced)	2
	Low (Biophysical and/or social functions and/or processes might be slightly enhanced)	4
	Medium (Biophysical and/or social functions and/or processes might be notably enhanced)	6
	High (Biophysical and/or social functions and/or processes might be considerably enhanced)	8
	Very High (Biophysical and/or social functions and/or processes might be substantially enhanced)	10
Probability	Improbable (5% to no chance of occurring)	1
	Probable (5% - 25% chance of occurring)	2
	Medium Probability (25% - 75% chance of occurring)	3
	Highly probable (75% - 95% chance of occurring)	4
	Definite (greater than 95% chance of occurring)	5
Reversibility	No impact	0
	Impact will be reversible	1
	High potential that impact might be reversed	2
	Moderate potential that impact might be reversed	3
	Low potential that impact might be reversed	4
	Impact cannot be reversed	5
Irreplaceability	None	0
	Very low potential for loss of irreplaceable resources	1
	Low potential for loss of irreplaceable resources	2
	Moderate potential for loss of irreplaceable resources	3
	High potential for loss of irreplaceable resources.	4
	Definite loss of irreplaceable resources	5
CUMULATIVE impact	High: The activity is one of several similar pasts, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern.	
	Medium: The activity is one of a few similar pasts, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socioeconomic resources of local, regional or national concern.	
	Low: The activity is localised and might have a negligible cumulative impact.	
	None: No cumulative impact on the environment.	



Once the evaluation components have been ranked for each impact, the significance of the potential impact is assessed (or calculated) using the following formula:

$$\text{SP (significance points)} = (\text{intensity} + \text{duration} + \text{spatial extent} + \text{irreplaceable} + \text{reversibility}) \times$$

The maximum value is 150 SP (significance points). The unmitigated and mitigated scenarios for each environmental impact should be rated as per the table below :

Significance Points	Environmental Significance	Description
125 – 150	Very high (VH)	An impact of high or very-high significance which could influence a decision about whether to proceed with the proposed project, regardless of available mitigation options.
100 – 124	High (H)	Cumulative Impacts: The activity is one of several similar pasts, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional, or national concern.
75 – 99	Moderate-high (MH)	If left unmanaged, an impact of moderate-high significance could influence a decision about whether to proceed with the proposed project. Mitigation options should be re-evaluated.
40 – 74	Moderate (M)	If left unmanaged, an impact of moderate significance could influence a decision about whether to proceed with the proposed project. Cumulative Impacts: The activity is one of a few similar pasts, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional, or national concern.
<40	Low (L)	An impact of low significance is likely to contribute to positive decisions about whether to proceed with the proposed project. It will have little real effect and is unlikely to influence project design or alternative motivation. Cumulative Impacts: The activity is localised and might have a negligible cumulative impact.
+	Positive impact (+)	A positive impact is likely to result in a positive consequence/ effect and is likely to contribute to positive decisions about whether to proceed with the proposed project.



ANNEXURE B: APPENDIX 6 CHECKLIST

Compliance with Appendix 6 of the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014

Requirements of Appendix 6 of the 2014 EIA Regulations	Included in the report in:
(1) A specialist report prepared in terms of these Regulations must contain-(a) details of- (i) the specialist who prepared the report; and (ii) the expertise of that specialist to compile a specialist report including a <i>curriculum vitae</i> ;	Section 1.1, Annexure C
(b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	Annexure C
(c) an indication of the scope of, and the purpose for which the report was prepared;	Section 1
(cA) an indication of the quality and age of base data used for the specialist report;	Section 1.5
(cB) a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	Section 2.1
(d) the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	
(e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 1.3
(f) details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives;	Section 2
(g) an identification of any areas to be avoided, including buffers;	Not applicable
(h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Section 2
(i) a description of any assumptions made and any uncertainties or gaps in knowledge;	Section 1.4 & 1.5
(j) a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Section 8
(k) any mitigation measures for inclusion in the EMPr;	Section 8.4
(l) any conditions for inclusion in the environmental authorisation;	Section 8.4
(m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Section 8.5
n) a reasoned opinion- (i) whether the proposed activity or portions thereof should be authorised; and (iA) regarding the acceptability of the proposed activity or activities; and (ii) if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	Section 8.4.3
(o) a description of any consultation process that was undertaken during the course of preparing the specialist report;	Section 1.3
(p) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	Responses to comments will be provided as part of the EIA process
(q) any other information requested by the competent authority.	Not applicable
(2) Where a government notice gazetted by the Minister provides for any proposal or minimum information requirement to be applied to a specialist reports, the requirements as indicated in such notice will apply.	Report prepared in accordance with the Economic and Social Specialist input Guidelines issued by the Department of Environmental Affairs and Development Planning.



ANNEXURE C: DECLARATION OF INDEPENDENCE



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X447, Pretoria, 0001, Environment House, 473 Steve Biko Road, Pretoria, 0002 Tel: +27 12 399 9000, Fax: +27 86 625 1042

SPECIALIST DECLARATION FORM

Specialist Declaration form for assessments undertaken for application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

REPORT TITLE

Socio-Economic Impact Assessment for the proposed Hoogeland Coastal Farmsteads, George

Kindly note the following:

1. This form must always be used for assessment that are in support of applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting, where this Department is the Competent Authority.
2. This form is current as of August 2023. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at <https://www.dffe.gov.za/documents/forms>.
3. An electronic copy of the signed declaration form must be appended to all Draft and Final Reports submitted to the department for consideration.
4. The specialist must be aware of and comply with 'the Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the act, when applying for environmental authorisation - GN 320/2020', where applicable.

1. SPECIALIST INFORMATION

Title of Specialist Assessment	Socio-Economic Baseline Report
Specialist Company Name	Multi-Purpose Business Solutions CC
Specialist Name	Dr Jonathan Zorah Bloom
Specialist Identity Number	6706265061081
Specialist Qualifications:	BCom, HonsBCom, MCom, PhD
Professional affiliation/registration:	Not applicable
Physical address:	1479 Milano Place, Val de Vie Estate, Paarl
Postal address:	1479 Val de Vie Estate, Paarl, 7646
Telephone	021-8800774
Cell phone	083 299 8523
E-mail	jzbloom@mweb.co.za



2. DECLARATION BY THE SPECIALIST

I, **Jonathan Zorah Bloom**, declare that –

- I act as the independent specialist in this application;
- I am aware of the procedures and requirements for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act (NEMA), 1998, as amended, when applying for environmental authorisation which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. “the Protocols”) and in Government Notice No. 1150 of 30 October 2020.
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing –
 - any decision to be taken with respect to the application by the competent authority; and
 - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 48 and is punishable in terms of section 24F of the NEMA Act.

Signature of the Specialist

Multi-Purpose Business Solutions cc

Name of Company

Date



ANNEXURE D: ABBREVIATED CURRICULUM VITAE OF SPECIALIST

DR. JONATHAN ZORAH BLOOM

ID NUMBER: 670626 5061 081
CURRENT STATUS: Managing Member, Multi-Purpose Business Solutions cc
NATIONALITY: South African Citizen
DATE OF BIRTH: 26 June 1967
LINGUISTIC ABILITIES: Proficient in English and Afrikaans
ADDRESS (Office): 1479 Milano Place, Val de Vie Estate, Paarl, 7646
Telephone: +27-21-880 0774
Mobile: +27-83-299 8523
E-mail: jbloom@mpbs.co.za

EDUCATION AND QUALIFICATIONS

1985: Matriculation at Paarl Boys' High School, Paarl
1989: BComm, Stellenbosch University
1990: HonsBComm (*cum laude*), Stellenbosch University
1992: MComm (*cum laude*), Stellenbosch University
2001: PhD (Corporate Finance), Stellenbosch University

EMPLOYMENT HISTORY

1995 to present: Managing Member of Multi-Purpose Business Solutions, a niche business advisory and economic development consulting firm with a specific focus on the public and government sector.

1 January 2008 to 31 July 2013: Part-time Professor of Corporate Finance, specialising in Real Estate Investment and Financing, Stellenbosch University.

2003 to April 2019: Director of Blue Cube Systems (Pty) Ltd and Blue Cube Intellectual Property Company (Pty) Ltd, private sector companies in the ICT industry.

1 July 2001 to 31 December 2007: Professor of Corporate Financial Management, specialising in Real Estate Investment and Financing, Stellenbosch University, with a special interest in business development.

1 July 2000 to 30 June 2001: Executive Manager of Chartered Alliance (Pty) Ltd, with assigned responsibility for the Business Services Unit within the Lateral Corporate Finance division of Chartered Alliance.

1 July 1999 to 30 June 2000: Executive Director of Crusader Systems (Pty) Ltd, charged with establishing a presence for the Business Solutions Group in the financial services industry.

1 January 1991 to 30 June 1999: Lecturer in the Department of Business Management, Stellenbosch University.

RESEARCH AWARDS

- Y-rating from the National Research Foundation (NRF) (2003).
- Rector's award for Excellence in Research (2003), Stellenbosch University.



BUSINESS AND ADVISORY EXPERTISE

- Public transport (IPTN) business development and implementation
- Project Management
- Public-Private-Partnership facilitation and procurement
- Commercialisation Initiatives
- Real Estate Development Services
- Financial Appraisals and Feasibility Studies
- Social and Economic Impact Assessments
- Customer Surveys
- Local Economic Development Planning with project development focus

SELECTION OF PROJECT INVOLVEMENTS RELATED TO SOCIO-ECONOMIC IMPACT ANALYSES

- Socio-Economic Impact Assessment for the proposed Rickety Bridge Basse Provence Project, Franschhoek, for Rickety Bridge Properties.
- Socio-Economic Impact Assessment for the proposed development on Erven 10 & 28, Wellington, for Guillaume Nel Environmental Consultants
- Socio-Economic Impact Assessment for the proposed St Peters Roche development, Erf 8709, Paarl, for Guillaume Nel Environmental Consultants
- Socio-Economic Impact Assessment for the proposed extension of airspace for the Coastal Park Landfill Site, Cape Town, for Resource Management Services.
- Socio-Economic Impact Assessment for the proposed Vredenheim Design District Development, Stellenbosch, for Rouxcor.
- Draft Socio-Economic Impact Assessment for the proposed Brandwacht-Aan-Berg Residential Development, Stellenbosch, for Guillaume Nel Environmental Consultants.
- Socio-Economic Impact Assessment for the proposed Mixed-use Development on Erf 7379, Pacaltsdorp, George, for Tshani Consulting CC.
- Socio-Economic Baseline Report for the proposed 150 MW LPG-Fueled Power Generating Facility, Saldanha Bay, for Legacy Environmental Management Consulting.
- Socio-Economic Baseline Report for the proposed 100 MW LPG-Fueled Power Generating Facility, Saldanha Bay, for Legacy Environmental Management Consulting.
- Socio-Economic Impact Assessment for the proposed 1000 MW Liquefied Natural Gas (LNG) to Power Plant; LNG Storage and Regassification Facility, Overhead Electricity Transmission Line, and Associated Infrastructure across various Farm Portions, Saldanha, Western Cape, for Legacy Environmental Management Consulting.
- Socio-Economic Impact Assessment for the proposed Sterrekus Solar Energy Facility & Overhead Power Lines, Blaauwberg, for Legacy Environmental Management Consulting.
- Socio-Economic Impact Assessment for the proposed Mixed Township Development on Portion 1, 8 and 21 of Grootfontein Farm No. 394IR in the City of Tshwane, for GKM Environmental.
- Socio-Economic Impact Assessment for the proposed Carletonville Solar Photovoltaic Plant on Farm 105 Twyfelvlakte, Merafong City, Gauteng, for Legacy Environmental Management Consulting.
- Socio-economic Impact Assessment for the proposed Carpe Diem South Solar Photovoltaic Plant on Farm Doornfontein 118/27, Merafong City, for Legacy Environmental Management Consulting.
- Socio-economic Impact Assessment for the proposed Carpe Diem North Solar Photovoltaic Plant on Farm Varkenslaagte 119/5, Merafong City, for Legacy Environmental Management Consulting.



- Socio-Economic Impact Assessment for the proposed 50 MW Eland Solar PV Plant and associated Overhead Line, eMakhazeni Municipality, for Legacy Environmental Management Consulting.
- Socio-Economic Impact Assessment for the proposed Klipheuwel Organic Waste Beneficiation and Biogas Facility on Farm Corona RE/480, Paarl, for Resource Management Services.
- Socio-Economic Impact Assessment for the proposed Ebenezer Multi-Purpose Centre and Sports Fields, on a Portion of Farm 727/22, Warburgh Road, Joostenbergvlakte, for Legacy Environmental Management Consulting.
- Socio-economic Impact Assessment for the proposed Cape Winelands Airport, Fisantekraal, for Capital Expenditure Projects (Pty) Ltd.
- Socio-economic Impact Assessment for the proposed Bellpark Mixed-use development, Bellville, for Legacy Environmental Management Consulting.
- Socio-economic Impact Assessment for the proposed Gydo Renewable Energy Project, Witzenberg Municipality, for SPV Renfields.
- Economic Scoping Assessment for the proposed Wesco Waste Management Facility (WMF) on the Farm Brakkefontein 32, Cape Town, for SLR Consulting (South Africa) (Pty) Ltd.
- Socio-economic Impact Assessment for the proposed Western Cape Wind Energy Facility, located in the Overberg REDZ, Western Cape Province, for Terramanzi Group.
- Socio-Economic Impact Assessment for the Klipfontein Solar Farm in the West Coast District for Resource Management Services.
- Socio-Economic Impact Assessment for the Stellenbosch Bridge development in Klipmuts, Stellenbosch, for Stellenbosch Bridge Properties (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed Lucullus Gardens Development, Joostenbergvlakte for Urban Land Joostenbergvlak (Pty) Ltd.
- Socio-economic Impact Statement for the additional housing on the Uitgezocht development in Paarl. Terramanzi Group commissioned the project.
- Benefit-Cost Value Assessment and socio-economic implications associated with the Picardi Residential Development, Paarl, for Arun Projects (Pty) Ltd.
- Socio-Economic Impact Assessment for the Darwin Road housing development, Joostenbergvlakte, for Lukhozi Consulting Engineers.
- Socio-Economic Impact Assessment for the Longlands Manor development in Vloottenburg, Stellenbosch for Legacy Environmental Consulting.
- Socio-Economic Impact Assessment for the proposed expansion of the Afro Fishing facility in the Port of Mossel Bay for Afro Fishing (Pty) Ltd.
- Financial viability, cost-benefit and market analysis for a proposed Mediclinic in the George Area. The assignment adopted a strategic approach to packaging a project that had transport-related issues, location considerations and required spatial alignment (2018-2019).
- Economic impact assessment and financial modelling for the development of Waterfront in the Port of Mossel Bay for Transnet National Ports Authority (TNPA)
- Socio-Economic Impact Assessment for Substantive Amendment Application for the Levendal Development in Southern Paarl for Val de Vie Investments (Pty) Ltd.
- Socio-Economic Impact Assessment for the River Farm development in Paarl for Val de Vie Developments (Pty) Ltd.
- Socio-Economic Impact Statement for the proposed Paarl Valleij Estate in Northern Paarl for Paarl Valleij Developments (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed Gourits Abalone Farm, in association with PHS Consulting.
- Socio-economic Impact Assessment for the proposed Vloottenburg Village development on Vredenheim Farm, Stellenbosch, in association with Withers Environmental Consultants.



- Economic and financial analysis, strategy formulation input for the preparation of an Urban Development Strategy for Stellenbosch Municipal area. The assignment entailed the development of a value surplus or deficit model to assess the impact of development decisions on the socio-economic fabric of the Stellenbosch economy, communities and the Municipality from an infrastructure and operational income and expense perspective. Rode and Associates commissioned the assignment.
- The development and application of a value assessment model for the Klapmuts Special Development Area (SDA) (Stellenbosch Municipality) to assess the investment, economic and funds flow impact for a development scenario. Assignment also included a property valuation analysis and the preparation of a community investment structure supported by a SPV. Beal Africa commissioned the assignment.
- Financial Economic analysis and preparation of an Investment Decision-making Platform as an input for the George Settlement Restructuring Strategy. RoyalHaskoning DHV commissioned the assignment.
- Socio-economic impact assessment for the development of a proposed Tungsten Mining Project in Piketberg in terms of the NEMA regulations and Mineral Petroleum and Resources Act.
- Socio-Economic Impact Assessment for the Mamre Wind Energy Facility in the City of Cape Town Metropolitan Area for Mulilo Mamre Wind Energy (Pty) Ltd.
- Social and Labour Plan for the application of a Mining Right for a proposed Tungsten Project in Piketberg in terms of the Mineral Petroleum and Resources Act.
- Economic impact assessment of the construction phase for the redevelopment of the Somerset Precinct in the Cape Town area for Department of Public Works, Western Cape in association with Rode and Associates.
- Socio-economic impact assessment for the development of two mariculture sites off the coast of the Eastern Cape for the Department of Environmental Affairs and Development Planning in association with Cape Environmental Practitioners, George.
- Economic Impact Assessment and Social Impact Assessment for the Parklands development in Saldanha Bay on the West Coast for Parklands Township Developers (Pty) Ltd.
- Socio-Economic Impact Assessment for development on a portion of the farm Constantia Uitsig and expansion of the tourism and hospitality facilities on the Farm.
- Socio-Economic Impact Assessment for the development of a residential estate in Melkbosstrand, Cape Town, for Nuplan Africa.
- Economic Impact Assessment and Social Impact Assessment with a social development focus for the Bella Riva development in the Durbanville region of the Cape Town Metropolitan Area of the Western Cape.
- Socio-Economic Impact Assessment for the development of two Wind Energy Facilities (Goereesoe and Kluitjieskraal) near Swellendam for Inca Energy (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed development of the Clover Wind and Solar Energy facility near Darling, Swartland Municipal area.
- Socio-Economic Impact Assessment for the proposed development of the Storm Photovoltaic Plant, Saldanha Bay, for Midnight Storm Investments 184 (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed development of Organic Recycling Processing Facility on Portion 2 of the Farm Olyphantsfontein No. 935, Malmesbury, for Soil and More Reliance.
- Socio-Economic Impact Assessment for the proposed development of the Dysselsdorp RE-Power PV Plant, near Oudtshoorn, Western Cape, for Dysselsdorp RE-Power (Pty) Ltd.
- Socio-Economic Baseline Assessment for the proposed Schaap Kraal Philippi Horticultural Area (PHA), Cape Town, for MSP Developments (Pty) Ltd.
- Social Impact Assessment with a social development focus for the Bosbokkamp Residential development in Stilbaai, Western Cape for Asla Devco (Pty) Ltd.
- Economic Impact Assessment and Social Impact Assessment for an upmarket residential estate in Paarl for Rhebokskloof Properties (Pty) Ltd.
- Socio-Economic Assessment for the proposed development of a sports facility for the Paarl Boys' High School.



The School commissioned the assignment.