

# EXECUTIVE SUMMARY

## **Introduction**

The applicant, the JN Venter Beleggings Trust, proposes to expand the existing Africanos Country Estate, Addo Sundays River Valley Municipality. The existing resort, consisting of, amongst others, the Africanos Inn, restaurant, chalets, function rooms, staff housing and associated infrastructure is located on Portion 228 of Commando Kraal Estate No. 113, and measures 1.16 hectares in extent. The JN Venter Beleggings Trust proposes to expand the existing resort onto a portion of the adjacent property, namely, Portion A of Remainder Portion 74 of the farm Commando Kraal Estate No. 113, measuring 5 hectares in extent. The majority of the proposed expansion is to take place on this adjacent portion of land and, where feasible, will tie into existing infrastructure, subject to the outcome of the various specialist assessments. The applicant, the JN Venter Beleggings, Trust has entered into Memorandum of Understanding with the current property owner (Sundays River Citrus Company) for the purchase of a 5 ha portion of the property. Subsequent to the purchase agreement and transfer, the property will in future be allocated a new property number.

## **Project Overview**

The proposed expansion includes the addition of 12 chalets accommodating 24 additional guests, staff housing to accommodate 20 additional employees, 12 new caravan camping sites (with a new separate access point) which can accommodate 24 campers, and a double storey hotel with 36 rooms, accommodating 72 guests. In addition, the expansion will also include a new laundry, tool shed, convenience store, new multifunction hall, additional parking and children's outdoor play area. The proposed expansion will also necessitate the demolition of existing buildings to accommodate the proposed new development components.

The proposed expansion will include the following components:

- Clearing of vegetation (orchards and scrub) for construction
- Site levelling and landscaping
- Construction of various new buildings
- Site preparation and establishment of new Caravan Camping area including ablution block.
- Construction of new parking area
- Installation of additional infrastructure including:
  - Extension to the existing domestic water supply from the irrigation canal offtake, to existing raw water tanks and new water tanks
  - Upgrade of the effluent management system
  - Establishment of a stormwater management system
  - Establishment of rainwater harvesting system where possible

The total expansion footprint is anticipated to be approximately 5 ha and is proposed to extend across Portion 228 of Farm Commando Kraal Estate No 113 and Portion A of Remainder Portion 74 of the farm Commando Kraal Estate No. 113

## **Access**

The existing main access to the development off the R336 Road is proposed to be relocated to approximately 200m south-east of the R336/ Zuurberg Way (MN50600) intersection in order to accommodate the increased vehicular activity generated by the expanded development. It is further proposed that the boundary wall or fence line be set back, to maximise sight distance for motorists exiting the site and travelling along the R336. In addition, acceleration and deceleration lanes should be provided at the relocated access point to allow decelerating vehicles to move out of the main traffic stream.

Two existing secondary access points, provided from Zuurberg Way (MN50600) for the staff housing and the refuse/delivery area to the rear of the existing Country Estate on Portion 228, are proposed to be maintained. A new access point to the proposed caravan park will be near the northern corner of Portion 228 of Commando Kraal Estate No. 113 off the MN50600. The last-mentioned access can also act as an access for maintenance and operational purposes.

## **Roads**

The preferred width of the proposed relocated main access should preferably be a width of 8.0 m wide near the entrance to the site. The width of the caravan and maintenance access should be a minimum of 7.8m wide. The width of the road lanes between the parking areas shall not be less than 7.5m.

## **Storm water system**

In an attempt to address the post-development storm water drainage in a responsible way including adherence to the accepted objectives, the following preliminary design proposals are recommended.

- In order to reduce the run-off of overland storm water, it is proposed that storm water be intercepted from the roof areas and conveyed to rainwater storage tanks near the buildings. The surplus storm water from the roofs will be

directed to the open grassed areas on and near the proposed caravan park, hotel, multi-function hall and kids play area.

- It is recommended to grass all the open areas on the site which is approximately 72% of the new extended area.
- Intercept and convey the storm water from the biggest part of the site to the shallow storm water detention area as far as practically possible.
- Subject to the detailed design of earthworks, the formed road/ parking areas and grassed areas and storm water system, the formed surface areas shall be designed to also act as shallow storm water channels under minor storms and emergency overland flow routes during or after major storm conditions where needed.
- The general resultant longitudinal gradients of the formed surface areas/roads shall be designed to direct the surface storm water flow to the shallow storm water detention area as far as practically possible.
- Detain and/or discharge the storm water from the storm water pond in accordance with the applicable regulations and design guidelines.
- The big grassed area on the site combined with the storm water detention facility will detain the intercepted storm water from more than 70% of the new development area of the site. This is to ensure that the post-development flow which will leave the site to be similar or less than the pre-development flows and simultaneously replenish the underground water sources.
- The storm water detention area has been designed to retain post-development major design storm intercepted flows up to a maximum 1 in 100 year recurrence intervals and release up to a maximum of a 1 in 5 year recurrence interval run-off to the existing storm water system next to, and in the reserve of, the R336 Road.
- The shallow grassed stormwater detention area has been designed to detain **759m<sup>3</sup> over an area of 3 539m<sup>2</sup> (approximately 20m wide x 179m long x maximum 600mm deep)**. The detained overflow from the said detention area will drain via a shallow paved “V” channel over the proposed parking area to the existing open storm water channel next to, and in the reserve of, the R336 Road via a 600mm diameter storm water pipe (subject to SANRAL approval).
- Due to the partial sedimentation process that occurs under lower flow velocities on the grassed areas and in the grassed storm water detention pond including the biological breakdown of contaminants by the sun energy and oxidation, the quality of the intercepted run-off can be improved prior to discharge to the R336 Road system.
- The gradient of constructed “embankments” to the grassed stormwater detention area shall not be steeper than 1 in 5 to enhance the safety of people, establishment of vegetation and soil stability under wet conditions as far as practical possible.

### **Water Supply System**

The Maximum Daily Domestic Demand (MDDD) for the full development (existing + proposed expansion) is anticipated to be 79.85m<sup>3</sup>/day and the **AADD equal to 36.86m<sup>3</sup>/day and on average 258.73m<sup>3</sup>/week**.

The bulk water supply to the existing Africanos Country Estate on Portion 228 of Commando Kraal Estate No. 113 is obtained from the Lower Sundays River Water Users Association (LSRWUA). The water supplied from the canal is treated in an existing on-site water treatment plant for domestic use. The existing authorized water supply from the canal of the LSRWUA to Africanos Country Estate is 3000m<sup>3</sup> per month (see water use account attached in Appendix G(viii)). This translates to 100m<sup>3</sup>/day or 700m<sup>3</sup>/week.

A Memorandum of Understanding has been drawn up between the SRCC (current landowner) and the applicant (future landowner) that Portion A will be sold with full water use entitlements. Given that the area proposed to be subdivided off Remainder Portion 74 (i.e. Portion A) has been surveyed at ~5ha, the water use entitlements that will also be transferred will be ~5ha. Subject to all the applicable water right approvals, the water supply from the irrigation canal to the 5ha property will thus be 123.29m<sup>3</sup>/day and 865.40m<sup>3</sup>/week.

The total water supply from LSRWUA to the full development on both properties will therefore be 223.29m<sup>3</sup>/day and on average 1563.03m<sup>3</sup>/week which is more than sufficient for the average weekly water demand of 258.73m<sup>3</sup>/week for the full development on both properties.

Considering the risk of continuous water supply from the irrigation canal on a weekly basis, it is recommended to put an **additional raw water reservoir of 283m<sup>3</sup>** next to the existing 283m<sup>3</sup> raw water reservoir at the existing water treatment plant as well as an **additional water tank (283m<sup>3</sup>) to store the treated irrigation water**. The existing on-site water treatment plant has sufficient capacity to treat the increased water demand and therefore is not required to be expanded.

A number of water-saving products have been proposed by the project engineer which can be incorporated into the designs to further reduce water consumption.

In order to accommodate the required minimum residual head pressure of 150kPa under instantaneous peak demand conditions and to accommodate a fire flow of 25 litres per second, it is recommended to install an elevated 3m high platform with water tanks with an effective fire storage capacity of 30kl combined with a FH, non-return valve and fire booster connection to the looped reticulation main.

### **Domestic Effluent System**

The anticipated average dry weather flow (ADWF) for the **full development (existing + proposed expansion)** is anticipated to be **35.02m<sup>3</sup>/day**. The preferred option to treat the domestic effluent under post-development conditions is the Clearedge Sewage Onsite Treatment System or similar foul sewer treatment system as approved by the Sundays River Valley Municipality.

The location to construct the foul sewer treatment plant has been identified near the northern corner of the site. The treatment plant will have a **maximum daily throughput capacity of 40m<sup>3</sup>**.

The existing conservancy tank system is proposed to be incorporated into the sewerage reticulation infrastructure to be installed as part of the proposed expansion. The conservancy tank is proposed to be converted to a septic tank to enable the overflow from the tank to be conveyed to the foul sewer treatment plant.

In layman's terms, the operation of the closed onsite Clearedge Sewage Treatment System can be summarized as follows:

- The effluent (grey and black water) from the pump station will be received by a “**communal**” **three-chamber septic tank (buffer tank)** with a minimum 24-hour design load capacity at the onsite treatment plant. Most of the bigger suspended solids will be contained and be broken down by anaerobic and aerobic action in the first chamber of the “communal” septic tank. The overflow from the first chamber will gravitate to the second and third chambers of the communal septic tank. The clearer effluent overflow from the third chamber will be pumped to the bioreactors.
- In the **bioreactors**, the effluent will move through the media where aerobic bacteria in a submerged fixed-film will break down the organic matter to more stable levels with the addition of air (higher concentration of dissolved oxygen) supply under pressure.
- The treated overflow from the bioreactor(s) will be discharged to the **clarifier(s)** where the sludge will be settled out, drained and be returned to the first chamber of the “communal” septic tank. The clear treated effluent from the top part in the clarifier will be conveyed to the **chlorine contact tank** for it to be disinfected.
- In order to keep the maintenance as simple as possible the solenoid driven dosing pump, an in-line chlorinator as developed by Klorman or Clearedge will be used to supply chlorine under controlled conditions to the effluent in the contact tank. The inline chlorinator consists of a spring-loaded cartridge filled with slow release chlorine tablets. The clear effluent will flow over the lower part of the spring-loaded cartridge where the flow in the pipeline between the clarifier and the contact tank can be adjusted to control the contact area between the slow release chlorine pills and the effluent to release the correct dosage of chlorine to disinfect the effluent to the required standards. In order to address the concern about the required levels of free chlorine residual in the final effluent, it is recommended that the applicable chlorine test of the final effluent from the contact tank should be done initially on a daily basis and to adjust the flow over the inline chlorinator accordingly if needed. The treated effluent will be directed to the irrigation pond.
- The **irrigation pond** has to be designed and constructed to allow a minimum of 4 days retention time to ensure the final effluent is free from any chlorine residual which could occur under isolated overdosing conditions.
- In case of extreme unforeseen package plant breakdowns, we recommend that the irrigation pond should also be able to accommodate the inflow up to **15 days x ADWF** that can be re-circulated to the “communal” septic tank if needed to limit the risk of possible contamination of underground water sources. The irrigation pond shall be constructed with a plastic lined base covered with a 300mm clay layer to avoid percolation to lower lying ground layers.
- The grassed areas and ornamental gardens will be **irrigated with the treated effluent**. The mentioned area is more than 30 000m<sup>2</sup>. Considering 2% losses due to evaporation, the irrigation rate has been calculated to be less than 2mm per calendar day which is acceptable from an irrigation perspective. The irrigation of the grassed open spaces with the treated effluent should optimize the usage of water under post-development conditions.
- It is also recommended to supply the batch plant with a mobile independent diesel generator in case of power failures.
- In order to monitor the effective working of the Clearedge package plant system in combination with the irrigation pond, it is recommended to have samples of the final treated water tested on a bi-weekly basis by the laboratory of the Nelson Mandela Bay Municipality: Port Elizabeth, or other independent laboratory as dictated by the Sundays River Valley Municipality, over the first 3 months.

**The treatment plant will require an area of 8m x 20m (160m<sup>2</sup>), 6m x 6m x 2.5m deep (36m<sup>2</sup>/72m<sup>3</sup>) buffer tank and irrigation pond of 15m x 15m x 2.7m deep (225m<sup>2</sup> / 600m<sup>3</sup>).**

Considering the topography of the site, it is recommended to drain the domestic effluent to the underground pump stations near each of the entities (three pump stations are proposed). **The gravity sewers will mainly be 160mm diameter Class 400kPa PVC-U pipes:** SANS 1601 Type 1 specification to convey the effluent from all the foulsewer generating entities to the underground sewer pump stations. The **sewer pumping main** from the private pump stations will mainly consist of **110mm diameter PVC-U Class 9** SANS 966 pipelines and will convey the domestic sewer effluent to the communal septic tank/buffer tank of the onsite foul sewer treatment plant near the northern corner of the site.

**Domestic Waste**

The proposed extension will produce an additional 6m<sup>3</sup> per day which should generate an additional 42m<sup>3</sup> domestic waste per week.

The **total future domestic waste** for the Africanos Country Estate is therefore anticipated to be **63m<sup>3</sup> per week**.

Africanos Country Estate will have to accept accountability for the effective management including the storing and collection of the solid waste from all the entities on site. The solid waste from the development will be collected and stored in containers in a **communal refuse room before collection** by a private licensed Contractor with a safe disposal certificate as dictated by the municipality.

The solid waste will be collected on a regular basis (weekly) from the communal refuse area and be disposed at the registered Sunland Waste Dump on the Remainder Farm 639 in the Administrative District of Uitenhage.

**Electricity**

Written confirmation has been received from Eskom that there is currently capacity to supply an additional 200kVA electricity to be utilized by the proposed expansion (confirmation is attached in Appendix G (viii)).

**PROJECT TIMING**

Should the proposed expansion receive a positive Environmental Authorisation, it is proposed that the expansion will take place in phases as follows:

PHASES	ACTIVITY	TIMEFRAME
<b>PRE-CONSTRUCTION PERIOD</b>		
Detailed Planning and Design Phase	<ul style="list-style-type: none"> <li>• Subdivision of Portion A, consolidation with Portion 228, and registration of new portion in applicant's name.</li> <li>• Prepare final layouts/ development footprint</li> <li>• Relevant permit &amp; licence applications and municipal approvals</li> <li>• Pre-Construction Audit</li> </ul>	24 months
<b>CONSTRUCTION PERIOD</b>		
PHASES	ACTIVITY	TIMEFRAME
1	<ul style="list-style-type: none"> <li>• Demolition of existing buildings</li> <li>• Upgrade of existing services infrastructure (water, sewerage, electricity)</li> <li>• Construction of new Laundry</li> <li>• Construction of new Staff Housing</li> <li>• Expansion of the Parking Lot</li> <li>• Construction of the new Tool Shed</li> </ul>	36 months
2	<ul style="list-style-type: none"> <li>• Construction of the Chalets</li> <li>• Construction of the Convenience Store and the Kids' Outdoor Play Area</li> <li>• Establishment of the Caravan Camping area</li> </ul>	24 months
3	<ul style="list-style-type: none"> <li>• Construction of the Hotel</li> <li>• Construction of the Multi-function Hall</li> </ul>	24 months
<b>OPERATION PERIOD</b>		
Operational Phase	<ul style="list-style-type: none"> <li>• Accommodation to be rented out.</li> </ul>	Commence upon completion of phase 2 and continue in perpetuity.

**Basic Assessment Process and Public Participation**

In terms of the NEMA EIA Regulations 2014 (as amended), published in GN R326, 327, 325 and 324, promulgated under Chapter Five of the National Environmental Management Act (Act 107 of 1998) (NEMAA), and published in Government Gazette 40772 on the 7 April 2017, the project requires a Basic Assessment (BA), because it triggers the following listed activity, in Listing Notice 3 (GN R324):

*“17. The expansion of a resort, lodge, hotel, tourism or hospitality facilities where the Development footprint will be expanded and the expanded facility can accommodate an additional 15 people or more.*

**a. Eastern Cape**

*i. Outside urban areas:*

*(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;...*”

In addition to the above the following listed activities are also anticipated to be triggered by the proposed expansion: GN R327 (Listing Notice 1): 27 and 28 (ii).

GN R324 (Listing Notice 3): 4. a. i. (gg), and 16. a. i. (hh).

These listed activities require authorisation from the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT). The BAR needs to show the competent authority, DEDEAT (Sarah Baartman Region), as well as the project applicant, the JN Venter Beleggings Trust, what the consequences of their choices will be in biophysical, social and economic terms. Public involvement forms an important component of this process, by assisting in the identification of issues and alternatives to be evaluated. The applicant has appointed Public Process Consultants as the independent Environmental Assessment Practitioner to undertake the Basic Assessment and public participation for this project.

Public Participation forms an important component of the BA Process and together with specialist input, assists the competent authority with their decision-making. The BA Process is currently at the stage where the Consultation Basic Assessment Report (CBAR) is being released for a minimum 30-day Interested and Affected Party (I&AP) comment and review period. The 30-day comment period extends from the **13 October 2020 to the 12 November 2020**.

### **Specialist Studies**

The following independent specialist studies, which have been reviewed by the EIA project Team, are included in Appendix D of the Report:

- Appendix D(i): Roads and Wet Services Report
- Appendix D(ii): Traffic Impact Assessment
- Appendix D(iii): Botanical Specialist Assessment
- Appendix D(iv): Aquatic Specialist Assessment
- Appendix D(v): Archaeological Impact Assessment: Letter of Exemption
- Appendix D(vi): Architectural Heritage Review and Assessment
- Appendix D(vii): Palaeontological Impact Assessment: Letter of Exemption

### **Alternatives**

This Basic Assessment included the consideration of various layout alternatives. Site alternatives were not assessed, as this project is for the expansion of the existing Africanos Country Estate. The following factors have contributed to the identification of the preferred layout alternative:

- Location of existing buildings and facilities on the site.
- Bulk services requirements for stormwater and domestic effluent management.
- Access arrangements

Layout 1 was an alternative layout that was initially proposed and assessed by the specialists. Layout 1 proposed that the expanded Country Estate continue to use the existing primary entrance, located on the R336, for access and egress to and from the site. However, based on comments received from SANRAL, namely, that access points should be 200m from the point of intersection of the national road with any other road, the existing access was deemed unsuitable for use for the expanded development and would have to be relocated. In addition, upon receipt of the Roads and Wet Services Report, some conflicts were identified between the proposed position of the sewerage treatment plant and associated infrastructure (buffer tank, irrigation pond), and the proposed position of the staff housing and new laundry. This layout is therefore **not the preferred layout** as it is not in line with the municipal planning frameworks applicable to the area and was not assessed further in this assessment process.

In order to accommodate the relocation of the main access point the layout had to be reconfigured. In particular, the positions of the proposed parking bays and convenience store were adjusted. Layout 2 was thus proposed. The traffic specialist also recommended that the boundary wall / fence be setback from the boundary in order to improve sight distances for vehicles exiting onto the R336 and a pedestrian sidewalk be provided to access the pedestrian crossing proposed by SANRAL across the R336.

The positions of the proposed new staff housing and laundry were also changed to accommodate the sewerage treatment plant and associated infrastructure. However, this layout did not take into account stormwater management for the site. In addition, the project engineer identified the requirement for the construction of a syphon to accommodate the existing LSRWUA canal in order to provide the new caravan / maintenance access point. The layout was thus required to be amended to accommodate the Project Engineer's recommendations and **is not the preferred layout** for the site and was not assessed further in this assessment process.

Layout 3, as outlined in Section 1 (Activity Description), is the preferred layout for the site and has been assessed in full in this Basic Assessment Process. It provides for safe access and egress to the site. The preferred layout required that the position of the new laundry be shifted in order to allow for the effective flow of the stormwater from the caravan site onto the grassed area adjacent to the proposed laundry and hotel. It also includes a shallow stormwater detention pond and indicates all the bulk services infrastructure as provided by the Project Engineer.

### **No-Go Alternative**

In addition to the alternatives discussed in this section, both the Go and the No-Go Alternatives were assessed in full in the Impact Assessment section of this report (Section D).

### **Environmental Impact Statement**

In line with the National Development Plan, the proposed development would allow for potential short and long term social and economic benefits, including employment opportunities and tourism accommodation, associated with the construction and operational phases of the development in line with national priorities for “increased economic growth”. According to the SRVM IDP (2016/2017) *“the recreation and tourism potential of the SRVM area is fairly well developed with tremendous potential for further expansion and improvement.”* The proposed expansion is therefore also in line with local development objectives.

The negative impacts that have been identified for the proposed expansion of the existing Africanos Country Estate have an overall significance of LOW during both the construction and operational phases, if all the recommended mitigation measures are applied.

**Ecological impacts** are not anticipated to be significant, as there is no remaining natural vegetation on the property and there are no natural surface water resources on the proposed expansion site. In addition, activities related to the expansion are not within the 500m licensing zone from any wetlands, no impacts on natural surface water systems could be identified. Anticipated ecological impacts during the construction and operational phases can be mitigated to LOW or VERY LOW NEGATIVE.

Negative **Socio-economic impacts** which have been identified include the generation of noise and dust as well as health and safety impacts related to the construction activities. The loss of agricultural land has also been identified as a Negative impact associated with the proposed expansion. These impacts associated with the construction phase of the proposed expansion project can be mitigated to LOW or VERY LOW NEGATIVE. The generation of noise as a result of use of the multi-function hall has also been identified as a LOW NEGATIVE impact during the operational phase. Positive Socio-economic impacts that have been identified in the construction and operational phases include the creation of a number of additional employment opportunities as well as additional accommodation units which contributes to the local tourism industry and the associated economic growth for the local community (rated as MEDIUM POSITIVE).

**Heritage impacts** can be mitigated to NEUTRAL during the construction phase, if the ECO and/ or construction foreman are informed of the types of heritage artefacts which could be uncovered during vegetation clearing and excavations, and are aware of the required action to be taken should heritage material be uncovered.

**Traffic impacts** associated with the additional traffic volumes associated with the construction phase and operational phase include road and intersection capacity, traffic safety and road condition. These impacts can be mitigated to LOW NEGATIVE (capacity) or MEDIUM NEGATIVE (safety).

The risks associated with the proposed expansion are largely associated with the creation of additional hard surface areas and the resultant stormwater flow, as well as the generation of waste (e.g. domestic effluent, solid domestic waste, chemical waste) during the operational phase. However, the application of the proposed mitigation and design measures, as recommended by the respective specialists, are anticipated to effectively manage, and reduce these potential impacts, so as to not have a detrimental effect on the receiving environment.

### **No-go Alternative**

The No-Go alternative will result in the potential employment and skills development opportunities for the local community not being realised. The potential additional support for the local tourism industry through the provision of additional accommodation opportunities will also not be realised. In turn, the potential opportunity for economic growth in the community will be lost. These consequential impacts are regarded as HIGH NEGATIVE.

**The Environmental Assessment process has not identified any negative impacts that should be considered “fatal flaws” from an environmental perspective, and thereby necessitate substantial re-design or termination of the project.**