

## EXECUTIVE SUMMARY

### BACKGROUND AND PROJECT OVERVIEW

On the 3 October 2016, Environmental Authorisation was issued to San Miguel Fruits SA (Pty) Ltd for, amongst others, the physical alteration of 200 hectares of virgin soil for agricultural development on Intsomi (Listing Notice 2, GN R545, Activity 16). Subsequent to the issuing of the Environmental Authorisation, two Amendment Notices have been issued, dated 25 July 2017 and 19 October 2020. The project applicant has purchased the farm known as "Intsomi" from San Miguel Fruits SA (Pty) Ltd, which includes the amended Environmental Authorisation. The Amendment for the transfer of ownership from San Miguel Fruits SA (Pty) Ltd to the JN Venter Family Trust was received from DEDEAT on 19 October 2020.

The portion of the proposed agricultural developments on Intsomi, as described in this Amendment Report (AR), entails the clearance of approximately 132ha for the establishment of 100ha of citrus orchards and 32ha of associated infrastructure (internal roads, laydown areas, internal irrigation pipes). The proposed additional citrus development will be located on the following portions of Intsomi:

- Western portion on Portions 9, 10 and 14 of Farm 100 (86ha)
- Eastern portion on Farm 661 (46ha)

In order to supply irrigation water to the existing authorised agricultural development as well as to the proposed additional citrus development the applicant is also requesting an amendment to the authorised water supply infrastructure configuration. The Pipeline will also provide the necessary water for the irrigated pastures within the proposed Intsomi Livestock Breeding Facility (described in a separate AR). Chapter Two of this report includes a detailed description of the project.

The applicant intends to expand agricultural activities on the remainder of Intsomi as follows:

- Proposed Additional Citrus Development ~132ha (This Amendment Report)
- Irrigation Water Pipeline (detailed in this AR, but required for existing authorised 200 ha of citrus as well as the additional citrus (~132 ha) and Livestock Breeding Facility)
- Proposed Livestock Breeding Facility (included in this amendment application but detailed in a separate AR)

As per the pre-application meeting held with DEDEAT on the 27 February 2020 it was initially indicated by DEDEAT that two separate substantive amendment applications are required for the Livestock Breeding Facility and Proposed Additional Citrus Development on Intsomi. However, based on more recent discussions it was recommended by DEDEAT that a single substantive amendment application form be submitted for the Livestock Breeding Facility and Additional Citrus Development, but that two separate ARs be compiled so as to separately describe the proposed activities and affected environments. However, the two reports will make reference to each other.

The proposed additional citrus orchards and associated infrastructure, as well as the proposed amendment to the authorised water supply infrastructure configuration is considered a substantive amendment since these were not assessed in the initial application for environmental authorisation and were not taken into consideration in the initial environmental authorisation. Part 2, Regulations 31 and 32 of the NEMA EIA Regulations, 2014 (as amended) must be followed to apply for activities that require substantive amendments. The applicant has appointed Public Process Consultants as the independent Environmental Assessment Practitioner (EAP) to manage the AA Process and associated Public Participation Process.

### PROPOSED AMENDMENT OVERVIEW

The proposed development which forms part of this AR consists of the following (Map 2.5):

- citrus orchards (100ha trees and 32ha associated infrastructure)
  - Western portion on Portions 9, 10 and 14 of Farm 100 (86ha)
  - Eastern Portion on Farm 661 (46ha)
- service roads (unspecified design, but included within citrus orchards footprint)
- laydown areas (unspecified design but included within citrus orchards footprint)
- internal irrigation infrastructure (unspecified design but included within citrus orchards footprint)

The proposed additional citrus development on Intsomi is planned to form part of a larger agricultural development, to include an adjacent farm portion known as Tango (Portion 11 of Farm 100). However, the proposed agricultural development on Tango is subject to a separate assessment process, namely Scoping and EIA. The property portions on Intsomi, that are proposed for additional citrus, will, for farming purposes, be referred to as the farm "Tango" in the future, should a positive environmental authorisation be received, and the amendment application be approved.

In addition, the applicant is applying for a change in the irrigation water supply infrastructure to the existing authorised cleared orchard area (168ha in the south-eastern portion of Intsomi) as follows:

- 3 x ø315mm irrigation pipelines installed across four farm portions (total length 2 255 m)
  - 165m on Farm 729
  - 870 m on Farm 661
  - 1 005 m on Portion 11 of Farm 100 (Tango)
  - 20 m under the road and reserve of the DR02006 (Enon Road)
  - 195 m on Farm 713 Hopefield

The authorised agricultural development (i.e. clearance of 200ha) on Intsomi commenced during September 2017 in line with the approved EMP. The vegetation has been cleared and site preparation (landscaping, internal irrigation pipeline installation etc.) is ongoing and nearing completion. It is intended that portions of the site will be completed for the planting of trees to commence in September 2021, subject to the installation of the new water irrigation pipeline. The saplings **MUST** be planted annually between **September and March. Since the pipeline will supply irrigation water to these saplings, the installation of this irrigation pipeline, prior to their planting, is critical to ensure the viability of the newly planted saplings. Should the water supply pipeline fail to be installed timeously, the approved 200ha citrus development, which has already been delayed by approximately 12 months, will again fail to be timeously implemented.** The delays in the project have high negative socio-economic impacts in terms of employment creation, capital investment, loss of foreign currency and failure to fulfil international as well as local contracts for the supply of fruit.

This irrigation water pipeline will also supply the water required to irrigate the proposed additional citrus development and the pastures within the proposed livestock breeding facility via a pivot (300 m diameter). No dams are required to be built as part of the amended water supply infrastructure configuration.

No logistical services area is required as the applicant will make use of existing support infrastructure (offices, stores, workshops) on adjacent and nearby farms (Farm 713 Hopefield, Two Step) to provide technical and logistical support to the proposed development.

The applicant requires 66.7ha of water use entitlements to effectively irrigate the proposed additional ~100ha of citrus on Intsomi. The water requirements for the two additional developments currently proposed by the applicant (Tango EIA and Proposed Livestock Breeding Facility on Intsomi) and being undertaken concurrently with this amendment application process, have also been taken into account, namely these two developments would require an additional 50ha (450 000m<sup>3</sup>) of water, should they receive Environmental Authorisation. The applicant has approximately 125ha (1 120 232m<sup>3</sup>) spare water rights assigned to other properties they own, which are not currently in use. Thus, the applicant has sufficient water rights to irrigate all three of the proposed developments, should such receive approval.

The proposed agricultural development will create additional direct permanent, as well as seasonal employment opportunities. In addition, a number of indirect, employment opportunities associated with the fruit packing industry, transportation and logistical companies, purchasing, as well as hiring of various products (chemicals, pallets, cartons), are anticipated to be created.

The anticipated capital investment of the proposed additional citrus development upon completion of the construction phase, will be approximately R16 million. It is estimated that the construction phase of the development will create approximately 50 new employment opportunities at a value of R800 000 annually. During the operational phase of the development, it is estimated that 60 new skilled and 96 unskilled employment opportunities will be created at a value of ~R3.5 million per annum. Labour will be sourced locally from communities in the SRVM and Nelson Mandela Bay Municipality (NMBM).

Should the amendment be granted for the proposed additional citrus, the applicant intends to commence with the construction phase (vegetation clearing and site preparation) within 12 months of the date of the amendment and be completed within 24 months of commencement. It is thus estimated that the project construction phase will take place over a period of 3 years (36 months). The water supply infrastructure will be installed **immediately** after the receipt of the amended authorisation and appeal period, should such be granted, as it is required to irrigate the existing authorised orchards on Intsomi, planting of which is proposed to commence in **September 2021**. The operational phase (farming activities) will commence upon completion of orchard establishment and continue into perpetuity.

See Chapter Two of the Report for further detailed information regarding the project description and motivation for the proposed amendment.

### ECOLOGICAL SPECIALIST ASSESSMENT

All impacts on terrestrial vegetation identified during the original EIA for the Intsomi citrus development are applicable to the proposed amendment. However, three additional impacts on vegetation have been identified. In the context of impacts on vegetation, the proposed amendment does not present any significant advantages or disadvantages over the original proposed citrus development. All mitigation measures previously proposed remain applicable, but mitigation measures suggested for the three newly identified impacts must be incorporated into the conditions of the subsequent environmental authorization.

See Chapter Four of the Report for further detailed information regarding the ecological impact assessment.

### AQUATIC SPECIALIST ASSESSMENT

No additional wetlands (natural or artificial) were observed within the area under assessment, other than those previously identified, delineated and buffered (Figure 5.8). Three artificial wetlands (dams) (No 5, 6 and 11) and one drainage line (1) were identified during the previous assessment that would be proximate to the proposed new orchard areas (eastern portion). A condition of the Environmental Authorisation was that a 50m buffer be applied around all the wetlands that occur on the affected properties which is greater than the 20m buffer that was recommended by the aquatic specialist. A 32m buffer has also been recommended around the drainage line, on which two of the wetlands lie. A drainage line was identified on Portion 11 of Farm 100 (Tango) during this assessment process, which appears to have its origin on the boundary of Portion 9 of Farm 100 and three impoundments were identified along the western boundary of Intsomi (Figure 5.9). Since they contained no natural aquatic biota or habitats, these impoundments are proposed to be cleared as part of the proposed citrus development. A 32 metre buffer is recommended around the drainage line on Tango.

Due to the installation of the pipeline across a drainage line, Section 21 c & i Water Use License Applications will be required. A separate DWS Risk Assessment Matrix is attached to the report (Appendix 1 - Draft). The matrix has indicated that all impacts would be LOW and that a General

Authorisation for Section 21 c and i uses would be appropriate but will be finalised once detail on the final layout can be provided and the pipeline design and installation method statement is provided.

Five of the impacts identified in the previous aquatic assessment would be required to be amended for the proposed additional citrus orchards and amended pipeline route. However, the significance and impact rating of these impacts are not expected to change. Recommended mitigation measures are required to change as well as the respective recommendations in the EMPr. Five impacts previously identified would no longer be applicable to the amended pipeline route, namely:

- Hydrological process impacts of the proposed Hope Field Storage Dam (hydrological processes).
- Hydrological process impacts of the alternative pipeline route C (hydrological processes).
- Loss of 'riparian' habitat due to the alternative pipeline route C (biodiversity loss).
- Hydrological process impacts of the proposed expansion of the dam on Farm 712 on the Coerney River (hydrological processes – erosion, sedimentation, water quality)
- Hydrological process impacts of the proposed dam on Farm 712 (hydrological processes – flow, volume).

No additional impacts on aquatic resources have been identified in this aquatic assessment.

See Chapter Five of the Report for further detailed information regarding the aquatic impact assessment.

### **ARCHAEOLOGICAL SPECIALIST ASSESSMENT**

Stone tools were observed throughout the proposed property for development, but they are considered to be of low cultural significance. They are in secondary context and not associated with any other archaeological remains. This confirms the earlier observations made during the original HIA (Rossouw 2015).

There are no advantages or disadvantages associated with the proposed changes from a heritage perspective. The impacts before the changes and after the changes also remain relatively the same. Apart from the recommendations in this report and those made during the previous assessment, there are no additional measures that are suggested to ensure avoidance, management and mitigation of impacts associated with the proposed changes.

No changes to the EMPr are suggested apart from the recommendations in this report but if any comments are received from ECPHRA regarding the proposed amendments it must be included. The previous recommendations made in the Heritage Impact Assessment report for the Intsomi Farm (Rossouw 2015) remain applicable.

See Chapter Six of the Report for further detailed information regarding the archaeological impact assessment.

### **PALAEONTOLOGICAL SPECIALIST ASSESSMENT**

The additional development areas within the amended Intsomi Farm agricultural project area on Farm 661 Kremlin and adjacent land portions near Kirkwood are underlain by non-marine fluvial to estuarine sediments of Late Jurassic to Early Cretaceous age assigned to the Kirkwood Formation (Uitenhage Group). However, these Mesozoic bedrocks are very poorly exposed here, if at all. Higher-lying portions of the project area are mantled by partially-calcretised Neogene (Late Tertiary) fluvial gravels of the Kudus Kloof Formation while thick sandy residual soils and sparse surface gravels occur on lower hillslopes and valley floors. These Late Caenozoic superficial sediments are generally of low palaeontological sensitivity. No fossil material was recorded here within the Mesozoic bedrocks or the Late Caenozoic superficial deposits during an earlier palaeontological survey on Farm 661 by Rossouw (2016) as well as during the recent survey of adjoining land portions by the author (Almond 2020b and present report).

Given (1) the small (partially disturbed) footprint of the proposed agricultural developments, (2) the likely weathered condition of the underlying Mesozoic bedrocks near-surface, as well as (3) the low palaeontological sensitivity of the overlying superficial sediments, the palaeontological heritage impact significance of all the newly proposed agricultural projects (i.e. new blocks of citrus plantation, goat breeding facility and irrigation pipeline) is assessed as LOW (negative) without mitigation (See Table 7.1 below). This assessment applies to the individual projects as well as their anticipated cumulative impact. There are no objections on palaeontological heritage grounds to authorisation of the amended agricultural developments. No further palaeontological heritage studies or specialist mitigation are required for the proposed developments, pending the potential discovery or exposure of any substantial fossil remains (e.g. vertebrate bones and teeth, large blocks of petrified wood, fossil plant-rich horizons) during the construction phase. The ECO responsible for these developments should be alerted to the possibility of important fossil remains being found either on the surface or exposed by fresh excavations during construction.

The impact significance rated in the previous palaeontological assessment is not proposed to change for the proposed amendments, namely Low Positive after Mitigation.

See Chapter Seven of the Report for further detailed information regarding the palaeontological impact assessment.

### **TRAFFIC IMPACT ASSESSMENT**

A traffic impact assessment was not undertaken as part of the original Environmental Impact Assessment. Therefore, it was not necessary for the traffic specialist to review the impacts previously identified.

It is anticipated that a total of 12 trips per day, generated at full development during harvesting season, and which will make use of DR02006 and MN50077 to deliver produce to a packhouse, will have minimal impact on the operational capacity of the adjacent road network. The proposed access point is positioned such that sight distances are in excess of the prescribed minimum requirements.

The following potential traffic impacts have been identified:

#### **Construction Phase**

- Additional traffic volumes
- Traffic Safety Impact due to slow moving traffic and installation of pipelines

The above impacts can be mitigated to a significance of Medium Negative.

#### **Operational Phase**

- Road and Intersection capacity (additional traffic loading)
- Traffic Safety Impact due to additional traffic
- Deterioration of Public Road Network
- Generation of Dust

The above impacts can be mitigated to a significance of Medium or Low Negative, excluding the last one, which can be mitigated to a Medium Positive significance.

In view of the findings of this study, it is recommended that:

- This TIS be approved by the Eastern Cape Department of Transport;
- DR02006 be maintained on a regular basis;
- Suitable warning signage be erected on the approaches to the proposed access point.
- Any cost relating to the provision of the access points to be met by the developer;

See Chapter Eight of the Report for further detailed information regarding the traffic impact assessment.

#### **SOIL SUITABILITY ASSESSMENT**

On the portions surveyed on Intsomi approximately 53.4ha of soils are **Recommended** for commercial citrus production. An additional 102.2ha are **Conditionally Recommended** and a further 87.6ha are **Marginally Recommended**. The total area that could be utilised for citrus production on Intsomi, within the area surveyed, is therefore 243.2ha, if suitable amelioration measures are applied. The soils on the remainder of the area surveyed on Intsomi were either Not Recommended (114.9ha) or not rated (37.8ha).

For sustainable development for deep-rooted perennial citrus under irrigation, special attention should be given to amelioration measures such as:

- Mechanical loosening of dense subsoil clay or hardpan layers (Va and Tr soil types)
- Mixing of A horizon with subsoil horizon where applicable but no mixing with free lime subsoils (soft or hardpan carbonate horizons).
- Cutoff drainage when planting blocks are laid out, especially on slopes.
- Ridging of soils with shallow soil.
- Judicious irrigation.
- Creating and maintaining a proper organic surface mulch.

See Chapter Nine of the Report for further detailed information regarding the soil suitability assessment.

#### **PUBLIC PARTICIPATION**

The Amendment Application Process (AA Process) being implemented can be divided into three phases namely:

- **Phase 1: Pre-Application and Project Announcement**
  - Pre-application consultation with DEDEAT
  - Approval for Public Participation Plan
  - Notice to DEDEAT of intention to submit an Amendment Application
  - Project Announcement and Registration of I&APs (30 days)
  - Specialist Studies
- **Phase 2: Application Form and Amendment Report**
  - Submission of Amendment Application Form to DEDEAT
  - Draft Amendment Report Review (30 days)
  - Submission of Final Amendment Report to DEDEAT (*We Are Here Now*)
- **Phase 3: Decision Making and Appeal Period**

The Draft AR was released for an I&AP and authority review period, which extended from 19 April 2021 to 4 June 2021. The following provides a summary of the issues raised during the project announcement phase, the number in brackets indicates the number of comments that have been made by I&APs during this phase (Project Announcement Phase) of the assessment process:

- Ecological Impacts (23)
- Public Participation Process and Amendment Application (30)
- Project Detail (16)
- Other (15)

The issues raised have been included in the Comments and Responses Trail in Chapter Three of the Report and copies of these comments are included in Appendix F. No comments have been received from I&APs which have required additional specialist studies to be undertaken as part of the Amendment Application Process. The Amendment Application Process is currently at the stage where the Final Amendment Report is being submitted to the competent authority, for their decision-making. All I&APs on the project database will be notified via email of the submission of the Final AR, as well as the outcome of the decision-making process. A copy of the Final AR can be downloaded from the project website: [www.publicprocess.co.za](http://www.publicprocess.co.za).

For more information regarding the public participation process see Chapter Three of the Report.

## CONCLUDING REMARKS

- The authorised agricultural development (i.e. clearance of 200ha) on Intsomi commenced during September 2017 in line with the approved EMPr. It is intended that portions of the site will be completed for the planting of trees to commence in September 2021, subject to the installation of the new water irrigation pipeline. The saplings **MUST** be planted annually between September and March. **Since the pipeline will supply irrigation water to these saplings, the installation of this irrigation pipeline, prior to their planting, is critical to ensure the viability of the newly planted saplings.**
- The potential impacts of the proposed amendments in the change in activity on Farm 661 do not differ significantly from those originally assessed in the Final EIA Report (2016) for the project. However, some additional mitigatory measures have been recommended by the respective specialists and thus need to be updated in the already approved EMPr.
- An additional 132ha to be cleared to accommodate approximately 100ha of citrus and 32ha of associated infrastructure (internal roads, laydown areas, internal irrigation pipes).
- A change in the number of hectares indicated as “No-Go” (increase, now 1136ha), “Go with Restrictions” (decrease, now 203ha) and “Go” areas (increase, now 458ha) in terms of the existing amended environmental authorization (see map 2.5 in Chapter Two).
- A change in the irrigation water supply infrastructure to the existing authorised cleared orchard area. These irrigation water pipelines will also supply the water required to irrigate the proposed additional citrus as well as the pastures within the breeding facility (~28.55ha) via a pivot (300m diameter). Should this amendment not receive a positive authorisation, the new pipeline route is still required for the authorised 168ha of citrus. The area required to be temporarily cleared for the installation of the irrigation water pipelines will be 8 280m<sup>2</sup> (0.82ha). Thus, the total additional area proposed to be cleared, should both developments, as well as the water supply pipeline be granted, is approximately 161.38ha.
- For the identified conservation areas to be effective, no permanent, large-scale development should be permitted in them and they should be regarded as No-Go areas. The linear nature of the proposed pipeline development means that its impacts are very localized, and it is not anticipated that its establishment will have significant or long-term detrimental effect on the affected vegetation. As such, given that adequate mitigation is in place, the establishment of a pipeline can be permitted in the No-Go area.
- Additional impacts associated with the change in the activity include:
  - **Construction Phase**
    - Establishment of ecologically inappropriate fire regime (Indirect)
    - Destruction of regional thicket vegetation variants (Cumulative)
    - Additional traffic volumes (Direct and Cumulative)
    - Traffic Safety Impact due to slow moving traffic and installation of pipelines (Indirect and Cumulative)
  - **Operational Phase**
    - Disturbance of thicket vegetation due to maintenance activities (Indirect)
    - Road and Intersection Capacity (additional traffic loading) (Indirect and Cumulative)
    - Traffic Safety Impact due to additional traffic (Indirect and Cumulative)
    - Deterioration of Public Road Network (Indirect and Cumulative)
    - Generation of Dust (Indirect and Cumulative)

The following additional conditions are recommended to be included in an Amended Environmental Authorisation, should one be granted:

- An environmental control officer (ECO) should be appointed to oversee the implementation of mitigation measures.
- The ECO to undertake a compliance audit of the existing Environmental Authorisation.
- Areas of Very-High ecological sensitivity and additional areas required to meet conservation targets for vegetation on Farm 661 should be regarded as No-Go areas from which development should be excluded and which should be managed for conservation. These conservation areas must be clearly demarcated prior to construction and sufficiently fenced in to prohibit access by the goats to these areas. This includes an environmental offset of at least 4.1ha of Koedoeskloof Karroid Thicket to compensate for the lack of conservation of this vegetation type

on the adjacent property, Tango (Portion 11 of Farm 100). This includes an area of approximately 40ha on Farm 661, as depicted in the maps attached in Appendix I of the Final Amendment Report to be set aside as a No-Go area and managed for conservation.

- Vegetation clearing must be limited to the approved development footprints, and any additional disturbance to vegetation should be avoided.
- Existing roads should be used as far as possible for site access and installation of irrigation pipelines.
- A stormwater management plan should be developed to minimize the risk of soil erosion.
- An AIP management plan should be developed to ensure ongoing management and removal of AIPs, especially *Opuntia aurantiaca* and *Opuntia ficus-indica*.
- Approved development footprints should be surveyed for SCCs prior to clearing taking place, and any rescued SCCs should be planted into suitable areas of intact vegetation on the property. Permits for the removal of these species will be required.
- The proposed pipeline crossing must be buried and any disturbed areas must be reinstated to resemble the current state of the environment in which they are found.
- Vegetation clearing should occur in a manner to minimise erosion and/ or run-off. Large tracts of bare soil will either cause dust pollution or quickly erode and then cause sedimentation in the lower portions of the catchment.
- Erosion control measures must be put in place prior to any construction activities that would result in soil being exposed.
- Any damage and loss of soil resulting from a storm is to be remedied immediately.
- Should any archaeological material be exposed during construction, all work must cease in the immediate area and be reported to the archaeologist at the Albany Museum in Grahamstown (Tel: 046 622 2312) or to the Eastern Cape Provincial Resources Authority (Tel: 043 745 0888), so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to investigate and to remove/collect such material (See Appendix B for a list of possible archaeological sites that may be found in the area).
- Fossilised material encountered at the site may only be removed or destroyed upon authorisation from the relevant Heritage Resources Authority (*i.e.* ECPHRA. Contact details: Mr Sello Mokhanya, 74 Alexander Road, King Williams Town 5600; Email: smokhanya@ecphra.org.za) by the issuing of an appropriate permit.
- A Chance Fossil Finds Protocol is to be appended to the Construction EMPr and implemented should any substantial fossil remains be uncovered.
- Fossil material must be curated in an approved repository (*e.g.* museum or university collection) and all fieldwork and reports should meet the minimum standards for palaeontological impact studies developed by SAHRA (2013).
- The Traffic Impact Statement must be submitted to the Eastern Cape Department of Transport for approval.
- An application for a wayleave must be submitted to the Eastern Cape Department of Transport District Roads Engineer prior to the installation of the pipelines under the DR02006.