CHAPTER FOUR: ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND PUBLIC PARTICIPATION

4.1 INTRODUCTION

The following chapter of this report provides an overview of the approach to the impact assessment phase of the EIA. For information on the approach to the Scoping Process, including relevant legislation, key principles and guidelines that provide the context for this EIA process, please refer to the Final Scoping Report.

This Chapter of the Report focuses on the following:

- An outline of the relevant legislation, with particular attention to the listed activities requiring environmental authorisation; and
- The public participation process that has been implemented for the Draft and Final EIA.

The EIA process is a planning, design and decision making tool which needs to show the decision making authority, DEDEAT and the project proponent, San Miguel Fruits SA (Pty) Ltd, what the consequences of their choices will be on the environment in biophysical, social and economic terms. As such it identifies potential impacts that the project may have on the environment as well as identifying potential constraints the environment may place on the development. The EIA makes recommendations to mitigate potentially negative impacts and maximise potentially positive impacts associated with the project.

4.2 LEGAL CONTEXT FOR THIS EIA

Section 24(1) of NEMA provides as follows:

> "*In order to give effect to the general objectives of integrated environmental management laid down in this Chapter, the potential impact of the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority charged by this Act with granting the relevant environmental authorization."*

The reference to "listed activities" in section 24 of NEMAA relates to the NEMA EIA regulations, 2010 as amended, and published in Government Notice R 543, 544, 545 and 546 on the 18 June 2010 in Government Gazette 33306, which requires either Basic Assessment, or full Scoping and Environmental Impact Assessment is undertaken prior to commencement of any activities on site. The project requires a full Scoping and Environmental Impact Assessment in order to obtain Environmental Authorization for activities listed in GN R 544, 545 and 546, for which the decision-making authority is the Provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).

A precautionary approach was adopted towards the assessment process and all the activities that may have required environmental authorization are referred to in the application form prepared and submitted to DEDEAT, prior to the commencement of the Scoping Process.

This Draft EIA was preceded by a comprehensive Scoping Process and the submission of a Final Scoping Report, including the Plan of Study for EIA, to the Provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) on **24 May 2012**. Acceptance of the Scoping Report and Approval of the Plan of Study for EIA was received on **9 July 2012.** EIA reference number **EC06/LN2/M/12-10** has been assigned to this application. A copy of the approval for the Plan of Study for EIA including acceptance of the Scoping Report is contained in Appendix B of this Report. After approval of the Plan of Study for EIA, the project entered the assessment phase of the EIA process. Based on the outcome of the specialist studies as part of the assessment phase of the EIA process, a review of the listed activities has been undertaken, see tables below.

The Draft EIA and EMPr were made available for a 30 day I&AP review period. Comments on the Draft EIA received during this review period have been included in the Final EIA Report. Acknowledgement of receipt of the submission of the Draft EIA to DEDEAT was received on the 4 December 2012. See copy of the correspondence attached as Appendix B to this report.

The project is now at the stage where the Final EIA Report is being submitted to the decision making authority. The listed activities contained in the tables below have been updated in line with the project description.

Table 4.1 Listed activities according to GN R 544 and 546 requiring Basic Assessment in terms of the NEMA EIA Regulations, 2010 (as amended)

Activity Number	**Project Component**
GN R544 (Listing Notice 1) Basic Assessment	
11. The construction of: *(xi) infrastructure or structures covering 50 square metres or more* *where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.*	There are two drainage lines on the property; access to the orchards will be required through the drainage lines. The establishment of vehicle tracks through the watercourse for the construction phase and the operational phase will be required. These consist of concrete culverts with an earthen topping. e.g. if the watercourse is 8 meters wide at its widest point and a 5 meter wide crossing is required this will equate to 40m^2. ***It is thus not anticipated that this listed activity will be triggered. See activity 18. Below.***
12. The construction of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50000 cubic metres or more, unless such storage falls within the ambit of activity 19 of Notice 545 of 2010;	The construction of a dam with a capacity to store 133 000 m^3 of water is required. ***This listed activity will require environmental authorisation***.
18. The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from: *(i) a watercourse;*	Two drainage lines traverse the proposed site. Roads and associated infrastructure will have to be constructed across these drainage lines to facilitate access for constriction and agricultural production at the site. This could result in the infilling or depositing or removal of material of more than 5m^3 from a watercourse. ***This listed activity will require environmental authorisation***.
42. The expansion of facilities for the storage, or storage and handling, of a dangerous good, where the capacity of such storage facility will be	The applicant intends to use the existing chemical store on site and has confirmed this has sufficient capacity to accommodate the increased storage

expanded by 80 cubic metres or more.	needs of the expanded operation. The applicant will install additional shelving in the existing building. ***This listed activity thus does not require environmental authorisation.***
GN R546 (Listing Notice 3) Basic Assessment	
2. The construction of reservoirs for bulk water supply with a capacity of more than 250 cubic metres. *(a) In Eastern Cape...:* *iii. Outside urban areas, in:* *(dd) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;* *(ff) 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;*	The construction of a dam with a capacity to store 133 000 m^3 of water is required. The site is adjacent to the Addo Elephant National Park; and the area proposed for the construction of the dam is a CBA2 as defined in the ECBCP. ***This listed activity will require environmental authorisation***.
4. The construction of a road wider than 4 metres with a reserve less than 13,5 metres. *(a) In Eastern Cape...:* *ii. Outside urban areas, in:* *(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;* *(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 areas of a biosphere reserve;*	This site is adjacent to the Addo Elephant National Park and portions of the site fall within a CBA1 as defined in the ECBCP. Internal roads wider than 4 meters will be created to facilitate access and agricultural production at the site. ***This listed activity will require environmental authorisation***.
12. The clearance of an area of 300 square metres or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. *(a) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;*	The study site includes vegetation identified as Albany Alluvial Vegetation which has been listed in terms of section 52 of the NEMBA as an Endangered ecosystem. The biophysical specialist assessment has confirmed through the site visit that the vegetation mapped as Albany Alluvial Vegetation in the NSBA is not this vegetation type, but degraded Sundays Thicket. ***This listed activity thus does not require environmental authorisation.***
13. The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation, … *(a) Critical biodiversity areas and ecological support areas as identified in systematic biodiversity plans adopted by the competent authority.* *(c) In Eastern Cape….:* *ii. Outside urban areas, the following:* *(ff) 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;*	This site is adjacent to the Addo Elephant National Park and portions of the site fall within a CBA1 as defined in the ECBCP. The vegetation proposed for clearing will exceed 1 ha and is predominantly indigenous. ***This listed activity will require environmental authorisation***.
14. The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation,… *(a) In Eastern Cape….:* *i. All areas outside urban areas.*	The vegetation proposed for clearing will exceed 5 ha and is predominantly indigenous. The site is located outside an urban area. ***This listed activity will require environmental***

	authorisation.
16. The construction of: *(iv) infrastructure covering 10 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.* *(a) In Eastern Cape...* *ii. Outside urban areas, in:* *(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;* *(hh) 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;*	The site is in the Eastern Cape, outside an urban area and portions of the site fall within a CBA1 as defined in the ECBCP. The site is in the Eastern Cape, outside an urban area and portions of the site fall within a CBA1 as defined in the ECBCP and is adjacent to the Addo Elephant National Park. There are two drainage lines on the property; access to the orchards will be required through the drainage lines. The establishment of vehicle tracks through the watercourse for the construction phase and the operational phase will be required. These consist of concrete culverts with an earthen topping. e.g. if the watercourse is 8 meters wide at its widest point and a 5 meter wide crossing is required this will equate to $40m^2$. ***This listed activity will require environmental authorisation***.
23. The expansion of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage facilities will be expanded by 30 cubic metres or more but less than 80 cubic metres. *(a) In Eastern Cape…:* *ii. Outside urban areas, in:* *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;*	The applicant intends to use the existing chemical store on site and has confirmed this has sufficient capacity to accommodate the increased storage needs of the expanded operation. The applicant will install additional shelving in the existing building. ***This listed activity thus does not require environmental authorisation.***

Table 4.2 Listed Activities in GN R 545 requiring Scoping and EIA in terms of the NEMA EIA Regulations, 2010 (as amended).

Activity Number	**Project Component**
GN R545 (Listing Notice 2)	
16. The physical alteration of virgin soil to agriculture, or afforestation for the purposes of commercial tree, timber or wood production of 100 hectares or more.	The proposed agricultural expansion will result in the removal of existing vegetation and the alteration of virgin soil to agriculture of approximately 263ha.

4.2.1 Legislation and Guidelines Pertinent to this EIA Process

The scope and content of this EIA Process has been informed by the following legislation, guidelines and information series documents:

- National Environmental Management Act (NEMA)(Act 107 of 1998) (As amended)
- National Heritage Resources Act (NHRA) (Act 25 of 1999)
- National Water Act (Act 36 of 1998)
- Municipal Systems Act (Act 32 of 2000)
- EIA Regulations published under Chapter 5 of the NEMA on 18 June 2010 (GN 544 and GN R 546 in Government Gazette 33306)
- Integrated Environmental Management Series Guidelines 2012

  - Guideline 5: Companion to the Environmental Impact Assessment Regulations, 2010 (DEA, 10 October 2012, No 35769)
  - Guideline 9: Draft Guideline on Need and Desirability in terms of the Environmental Impact Assessment Regulations, 2010 (DEA, 5 October 2012, No 35746)
  - Guideline 5: Public Participation in the Environmental Impact Assessment Process, (DEA, 10 October 2012, No 35769)
  - Guideline 5: Assessment of alternatives and impacts in support of the Environmental Impact Assessment Regulations, 2006 (DEAT, June 2006)
- Integrated Environmental Management Information Series (Booklets 0 to 21) published by DEAT over the period 2002 to 2005.
- National Forests Act 84 of 1998 with Amendments
- Conservation of Agricultural Resources Act 43 of 1983
- Eastern Cape Nature and Environmental Conservation Ordinance 19 of 1974

4.2.1.1 National Water Act

Locally the South African Constitution, seven (7) Acts and one (1) international treaty allow for the protection of rivers and water courses. These systems are thus protected from destruction or pollution by the following:

- Section 24 of The Constitution of the Republic of South Africa;
- Agenda 21 – Action plan for sustainable development of the Department of Environmental Affairs and Tourism (DEAT) 1998;
- National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998) inclusive of all amendments, as well as the NEM: Biodiversity Act, 2004 (Act 10 of 2004);
- National Water Act, 1998 (Act No. 36 of 1998);
- Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983);
- Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002);
- Nature and Environmental Conservation Ordinance (No. 19 of 1974);
- National Forest Act (No. 84 of 1998); and
- National Heritage Resources Act (No. 25 of 1999).

The Aquatic Assessment Report will be used as per the relevant submissions to the Department of Water Affairs in terms of the required licenses. Any development that would take place within 500m of the three remaining pans on the site as well as any construction through the watercourse would require a Water Use Licence (WULA).

4.3 OVERVIEW OF THE EIA PROCESS

The DEA Guideline 5: Companion to the Environmental Impact Assessment Regulations, 2010 (DEA, 10 October 2012, No 35769) states that if the competent authority accepts a scoping report an EAP must be advised to proceed with the tasks contemplated in the plan of study for EIA, including the public participation process, and prepare an EIR. An environmental impact assessment report must contain all information that is necessary for the competent authority to consider the application and to reach a decision.

The EIA Report must comply with regulation 31 (2) and include inter alia:

- A description and comparative assessment of all alternatives identified;

- A description of all environmental issues identified as well as significance of each issue and an indication of the extent to which the issue could be addressed by the adoption of mitigation measures;
- A reasoned opinion as to whether the activity should, or should not be authorised;
- An environmental impact statement; and
- A draft Environmental Management Programme (EMPr)

The Plan of Study for EIA (PSEIA) sets out the process to be followed in the EIA phase and is shaped by the findings of the Scoping process. The main stages in the EIA process and the estimated schedule are provided in the table below.

Table 4.3 Proposed EIA Schedule for the Assessment Phase of the EIA

Activity	Date
Acceptance of Final Scoping Report and Plan of Study for EIA	July 2012
Initiate specialist studies in parallel to approval for POS for EIA	June/July 2012
Compile Draft Environmental Assessment	August 2012
Public Review of the Draft Environmental Impact Assessment	November 2012
Compile Final EIA and EMPr and submit to Authorities	Early December 2012
Authority Decision making period and appeals	As per regulations

4.3.1 Identification of issues

The EIA process consists of three overlapping processes:

- A central assessment process involving authorities where inputs are integrated and presented in documents that are submitted for approval by the authorities (described in section 4.4.1)
- A specialist process which provides the necessary technical and legal input (section 4.6)
- A public participation process which communicates the findings of the various studies undertaken (section 4.4)

The integrated environmental management process for this project was initiated in January 2012 through a Project Team meeting including the applicant, San Miguel Fruits SA (Pty) Ltd and Public Process Consultants which assisted in the identification of issues that required specialist assessment. This has further been refined through the I&AP and authority consultation process as well as site visits undertaken on the 10 February for the preparation of the Scoping Report and 11 July 2012 for the preparation of the Draft EIA Report.

The table below provides an overview of the specialist studies identified to form part of this assessment. The main objective of the specialist studies is to provide independent, scientifically sound information on issues relating to the project proposal. The scope and Terms of Reference for these studies is outlined in section 4.6.

Table 4.4 Proposed list of specialist studies and specialists

Specialist Study	Broad Scope of Assessment	Proposed Specialist
Biophysical / Ecological Assessment	To include an assessment of the potential impacts on vegetation and fauna (desk top) as well as the delineation sensitive no-go areas.	Marisa Jacoby (reviewed by Dr Steyn)

Aquatic Assessment	Identification and delineation of watercourses and wetlands, as well as recommendations for management and no-go areas.	Dr Brian Colloty, Sherman Colloty and Associates.
Archaeological Assessment	Phase 1 to determine Archaeological features on site	Dr Johan Binneman, Albany Museum
Palaeontological Assessment	Desk Top to determine Palaeontological resources on site	Dr John Almond
Soil suitability assessment	to determine the Agricultural potential, future agricultural development, crop suitability	SGS NVIROCROP (Pty) Ltd
Review Biophysical / Ecological Assessment	To review the findings and recommendations of the Biophysical / Ecological Assessment	Dr Paul-Pierre Steyn, NMMU
TECHNICAL TEAM (See Note 1)		
Irrigation	Estimate the demand for water and size of the dam to be constructed on site	South Cape Irrigation, Eastern Cape

4.3.2 Approach to Preparing the EIA and EMPr

The results of the specialist studies and other relevant project information have been summarized and integrated into the Draft Environmental Impact Assessment Report. The methodology utilized for the identification and ranking of impacts is outlined in Section 4.5 below.

The Draft EIA will be released for a 30 day I&AP and authority review period. All I&APs on the project database will be notified in writing of the release of the Draft EIA for review. No public meetings are proposed to be held during this period but focus group meetings will take place with key I&APs if required. Comments raised, through written correspondence (emails, faxes, comment forms) and at meetings held or through telephonic consultations, will be captured for inclusion in a Comments and Responses Trail for consideration in the Final EIA. Comments raised will be responded to by the EAP, applicant and/or relevant specialist which will indicate how the issue raised is dealt with in the EIA or in the EMPr. Should the comment received fall beyond the scope of this EIA clear reasoning for this will be provided. All comments received will be attached as an appendix to the Final EIA.

The Draft EIA includes a draft EMPr (Part B) which has been prepared in compliance with the relevant regulations. Actions in the EMPr are drawn primarily from the management actions in the specialist studies for the construction and operational phases of the project.

If the project components are decommissioned or re-developed, this will need to be done in accordance with the relevant environmental standards and clean-up/ remediation requirements applicable at the time. The decommissioning of the project is not envisaged at this stage.

4.4 PUBLIC PARTICIPATION PROCESS

The following section outlines the various steps to be followed in the public participation process for the EIA phase of this process. The participation process undertaken for the Scoping Phase of the process is outlined in Final Scoping Report for this project.

All I&APs were notified in writing, via Letter 3, of the submission of the Final Scoping Report to DEDEAT for the decision making and were provided with an additional 21 day comment period. A copy of the correspondence sent to I&APs is included as Appendix D of this report.

Task 1: Compile Draft Environmental Impact Report and EMPr

The first stage in the process entails the compilation of the Draft Environmental Impact Assessment (EIA) and EMPr for a 30 day I&AP and authority review period. The Draft EIA and EMPr are compiled based on the specialist studies conducted for the project as outlined in the Final Scoping Report.

Task 2: Review of the Draft EIA (and EMPr) and Ongoing Communication

The Draft EIA and EMPr was made available for a 30 day review period, which extended from the 6 November 2012 to the 5 December 2012. The following indicates the public participation process that was implemented for the public review of the Draft EIA and EMPr in order to facilitate access to information and receive comments on the Draft EIA:

- **Correspondence to I&APs** - Letter 4 to I&APs: All I&APs on the project database were notified in writing of the release of the Draft EIA and EMPr for public review. Included with this notification was an executive summary of the Draft EIA and a comment form. A copy of the correspondence sent to I&APs during the review period has been included in Appendix D of this report.
- **Report Availability**
  - Key I&APs (Councillor and affected organs of state) were provided with either a hard copy or CD of the report.
  - Report was placed on the project website **www.publicprocess.co.za**
- **Focus Group Meetings** – one-on-one meetings with key I&APs were not requested by any of the I&APs during the review period.
- **Authority Consultation** – Comment was received from the Land Use & Soil Management Division of the National Department of Agriculture, Forestry and Fisheries with regards to the application requirements for the applicant in terms of the Conservation of Agricultural Resources Act (Act No. 43 of 1983). This comment has been included in the Comments and Responses Trail. A comment was received from Addo Elephant National Park, which was followed up by a telephonic discussion and email correspondence. The correspondence with Addo Elephant National Park is included in the Issues and Responses Trail below and a copy of the communication is included as Appendix G of this report.
- **Database maintenance** – the I&AP database is updated as and when information is received from or sent to I&APs. At the time of release of the Draft EIA Report 35 I&APs were registered on the project database. The database for the Final EIA report includes **36 registered I&APs**. A copy of the I&AP database is attached as Appendix C of this report.

Task 3: Comments and Responses Trail

A key component of the EIA process is documenting and responding to the comments received from I&APs and the authorities. Comments have been received and documented as follows:

- Written and email comments (letters and completed comment forms)
- Telephonic communication

The comments that were received during the review of the Draft EIA have been compiled into a Comments and Responses Trail for inclusion in the Final EIA. The Comments and Responses trail indicats the nature of the comment, when it was raised and by whom. The comments received have been considered by the EIA team and appropriate responses provided by the relevant member of the team and/or specialist. The response provided indicates how the comment received has been considered in the Final EIA, in the project design or EMPr for the project. Where the comment received falls outside of the scope of the EIA this has, as far as possible, been clearly indicated and reasons provided.

The comments and responses trail below provides an overview of the comments that were received during the review of the Draft EIA Report and copies of all comments received have been included as Appendix G of this Report.

1. Potential Impacts on the Addo Elephant National Park

NO	ISSUES RAISED	COMMENTATOR	DATE	RESPONSE
1.1	I have received your notice regarding the expansion of the Riverbend citrus farm. I would appreciate it if you could send me a map indicating the 500ha's. Once I have this we will issue a formal response. Can you also let me know who you sent this notice to. I do believe that we need to involve someone like Dr. Richard Cowling and Dr. Mike Knight. Making a mistake here could have far reaching implications into the future. There is a strong possibility that the property you refer to, forms an ecotone between the bondt veldt and the thicket and is crucial part of land in creating a viable passage way between the Kabouga, Zuurberg and Addo thicket components. I will reserve further comment, until such time we have a map of the planned area.	John Adendorff, Addo Elephant National Park	13 November 2012, email	In response to this comment the commentator was telephonically contacted and consulted, which was followed up with an email response dated the 14 November 2012. The following SANParks as well as Addo Elephant National Park representatives were included on the Project database from the outset of the process, namely, Dr Mike Knight, Dr Stephen Holness, Peter Bradshaw, Park Manager Norman Johnson and Lucius Moolman. Dr Mike Knight and Peter Bradshaw were consulted during the Scoping process and their official response is included in the Final Scoping Report. The commentator was also provided with a copy of the Amended Concession Agreement between SANParks and River Bend et al, which has been signed by SANParks CEO David Mabunda. The commentator was also emailed a copy of Chapter 2 of the Draft EIA, which provides a full project description and indicates the boundaries of the affected properties, including the concession area. A full ecological specialist assessment has been undertaken for this project and has also been subject to a separate independent specialist review. The commentator was emailed the Ecological Specialist Assessment for the Final EIA. The thicket vegetation on the River Bend Farm which is considered to have a high conservation value has been included as part of the no-go area for development. Approximately 51% of the original extent of the thicket which occurs on River Bend is proposed for conservation. A key area is the intact thicket on the northern portion of

				the property which is a no-go area as it would inter alia form an important ecological corridor and play a key role in maintaining ecological patterns and processes at the base of the Zuurberg Mountains. In response to the telephonic discussion and follow up email, no further comments were received from this commentator.

2. Requirements from the Department of Agriculture

NO	ISSUES RAISED	COMMENTATOR	DATE	RESPONSE
2.1	Please find the attached as per the new land applications requirements. The Directorate Land Use & Soil Management is mandated in terms of Conservation of Agricultural Resources Act 43 of 1983 (CARA). The CARA Act makes provision for the conservation of natural agricultural resources of the country through: • The maintenance of the agricultural potential of the land • Combating and prevention of soil erosion • Preventing the weakening or destruction of water resources • Protection of natural vegetation • Combating weeds and invader plants The provisions of Regulation 2 of CARA related cultivation of virgin or new land are applicable to the proposed expansion of the agricultural activities on the properties. The landowner or applicant must obtain permission in terms of Regulation 2 of the CARA Act, before the virgin soil may be disturbed mechanically. The establishment of windbreakers for protecting the citrus trees from wind destruction also require a permission in terms of Regulation 15 B (2) (a) of the CARA Act, only Category 2 declared invader plants will be permitted for planting as wind	Gcinile Dumse, DAFF:LUSM	19 November 2012, email, faxed comment form	This correspondence was forwarded to the applicant along with the relevant application forms.

	breakers or else indigenous species if ever possible. The LUSM office will be required to conduct a joint site inspection with Rural Development and Agrarian Reform, Resource Planning Section based in Port Elizabeth before a decision may be taken. The land user will be required to lodge an application before site inspection. New/virgin land application form and the demarcation application form attached.			

Task 4: Compilation of the Final EIA and Submission to Authorities

The Final EIA including the comments and responses trail and EMPr have been compiled for submission to DEDEAT for decision making. The following process will be followed regarding the notification to I&APs and authorities for the submission of the Final EIA.

- Report Distribution
  - Relevant organs of state and key I&APs will be provided with a hard copy or CD of the report
  - Report to be placed on the project website www.publicprocess.co.za
- Letter 5 to I&APs: notification of submission of the Final EIA and an additional 21 day comment period.

Task 5: Environmental Authorisation and Appeal Period

All I&APs on the project database will be notified of the issuing of the Environmental Authorisation and the Appeal period (Letter 6 to I&APs). The following process will be followed:

- Environmental Authorisation to be placed on the project website www.publicprocess.co.za
- Letter 6 to I&APs: Environmental Authorisation and Appeal Period
- A notice to be placed in the Herald

4.4.1 Authority Consultation

It is proposed that the competent authority (DEDEAT) is consulted at various stages during the EIA process. The authority consultation process for the Scoping Process is outlined in the Final Scoping Report. The table below indicates the proposed consultation schedule for the EIA.

Table 4.5 Authority consultation schedule

Stage in EIA Phase	Form of Consultation
1. After the initial comment period - during preparation of the Final Scoping Report and Plan of Study for EIA	Communication with DEDEAT to confirm timeframes for public consultation and the approach to the Scoping and EIA process.
2. After completion of specialist studies - during preparation of Draft EIA Report and EMPr	Written communication with DEDEAT and consultation if required.

4.5 GENERIC TERMS OF REFERENCE FOR THE ASSESSMENT OF IMPACTS

The following section outlines the assessment methodology and legal context for specialist studies (Section 3: Assessment of Impacts, in DEAT Guideline 5, June 2006), which have been undertaken for this EIA. The identification of potential impacts includes impacts that may occur during the **construction and operational phases** of the activity. The assessment of impacts includes **direct, indirect as well as cumulative impacts**.

In order to identify potential impacts (**both positive and negative**) it is important that the nature of the proposed activity is well understood so that the impacts associated with the activity can be understood. The process of identification and assessment of impacts will include:

- Determine the current environmental conditions in sufficient detail so that there is a baseline against which impacts can be identified and measured.
- Determine future changes to the environment that will occur if the activity does not proceed.
- An understanding of the activity in sufficient detail to understand its consequences; and
- The identification of significant impacts which are likely to occur if the activity is undertaken

As per Guideline Document 5: Assessment of Alternatives and Impacts the following methodology is to be applied to the predication and assessment of impacts. Potential impacts have been rated in terms of the **direct, indirect and cumulative**.

- "**Direct** impacts are impacts that are caused directly by the activity and generally occur at the same time and at 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 as a result 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 as a result of the activity.

- **Cumulative** impacts are impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities. Cumulative impacts can occur from the collective impacts of individual minor actions over a period of time and can include both direct and indirect impacts." DEAT (2006).

- **Spatial extent** – The size of the area that will be affected by the impact
    - Site specific
    - Local (<2 km from site)
    - Regional (within 30 km of site)
    - National

- **Intensity** –The anticipated severity of the impact
    - High (severe alteration of natural systems, patterns or processes)
    - Medium (notable alteration of natural systems, patterns or processes)
    - Low (negligible alteration of natural systems, patterns or processes)

- **Duration** –The timeframe during which the impact will be experienced
    - Temporary (less than 1 year)
    - Short term (1 to 6 years)
    - Medium term (6 to 15 years)
    - Long term (the impact will cease after the operational life of the activity)
    - Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient)

Using the criteria above, the impacts will further be assessed in terms of the following:

- **Probability** –The probability of the impact occurring
    - Improbable (little or no chance of occurring)
    - Probable (<50% chance of occurring)
    - Highly probable (50 – 90% chance of occurring)
    - Definite (>90% chance of occurring)

- **Significance** – Will the impact cause a notable alteration of the environment?

  - Low to very low (the impact may result in minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures, and will not have an influence on decision-making)
  - Medium (the impact will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated).
  - High (the impacts will result in major alteration to the environment even with the implementation of the appropriate mitigation measures and will have an influence on decision-making)

- **Status** - Whether the impact on the overall environment will be positive, negative or neutral
  - "+" (positive - environment overall will benefit from the impact).
  - "-"(negative - environment overall will be adversely affected by the impact).
  - "o" (neutral - environment overall will not be affected).

- **Reversibility** – The degree to which the potential impacts can be reversed
  - Reversible
  - Partially Reversible
  - Irreversible

- **Confidence** – The degree of confidence in predictions based on available information and specialist knowledge
  - Low
  - Medium
  - High

- **Management Actions and Monitoring of the Impacts (EMPr)**
  - Where negative impacts are identified, mitigatory measures have been identified to avoid or reduce negative impacts. Where no mitigatory measures are possible this is stated.
  - Where positive impacts are identified, mitigatory measures have been identified to potentially enhance positive impacts.
  - Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set. This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

The table below has been used by specialists for the rating of impacts.

Table 4.6: Table for rating of impacts

Nature of the Impact	This should include a description of the proposed impact to indicate if the impact is a direct, indirect or a cumulative impact.
Extent	Site specific, local, regional or national
Duration	Temporary, short term, medium term, long term or permanent
Intensity	High, medium or low
Probability	Improbable, probable, highly probable, definite
Degree of Confidence	Low, medium or High
Status and Significance (without mitigation)	Low, medium or High indicating whether Positive (+), Negative (-) or Neutral (o)
Reversibility	Reversible, Partially Reversible, Irreversible

Mitigation	Overview of mitigatory measures to mitigate potentially negative impacts or enhance potential positive impacts indicating how this mitigatory measure impacts on the significance of the impact
Status and Significance (after mitigation)	Low, medium or High indicating whether the status of the impact is Positive (+), Negative (-) or Neutral (o)

Other aspects to be taken into consideration in the assessment of impact significance are:

- Impacts will be described both before and after the proposed mitigation and management measures have been implemented.
- Impacts will be evaluated for the **construction and operational phases** of the project
    - **NOTE**: No assessment of impacts during the decommissioning phase of the project is proposed. The relevant guidelines and rehabilitation requirements applicable at that time will need to be applied.
- The impact evaluation will, where possible, take into consideration the **cumulative effects** associated with this and other facilities/projects which are either developed or in the process of being developed in the local area.
- The impact assessment will attempt to quantify the magnitude of potential impacts (direct and cumulative effects) and outline the rationale used. Where appropriate, national standards are to be used as a measure of the level of impact.

4.6 SPECIFIC ISSUES TO BE ADDRESSED IN SPECIALIST STUDIES

The following provides the Terms of Reference for each of the specialist studies as outlined in the Plan of Study for EIA in the Final Scoping Report. Issues included in the specialist TOR have been identified through the specialist site visit, technical team meeting and I&AP and authority consultation. Additional issues, identified through public and authority consultation during the Scoping phase, as well as specialist inputs, have been included in the final Terms of Reference for specialists (i.e. in the PSEIA in the Final Scoping Report).

4.6.1 Biophysical Assessment

The vegetation assessment for the proposed development will include the following:

- Conduct a desktop assessment of available literature in order to identify and describe the status of the vegetation in terms of applicable local and regional conservation planning frameworks (NSBA, ECBCP, STEP)
    - Include the identification and evaluation of critical biodiversity areas and corridors
- Conduct field research in order to identify, map and describe the current state of the vegetation on site supported by relevant photographs
    - Identify and determine the relative abundance of species of special concern within the study area (Vulnerable, Endangered or Critically Endangered and Protected)
    - Identify and determine alien species present and their distribution within the study area.
    - Determine the density of the alien vegetation and the potential for post-removal recovery of indigenous vegetation
    - Provide a detailed vegetation sensitivity map of the site
    - Detailed mapping of disturbance and transformation on site
    - Identify and map sensitive or specialized habitats
- Identify and assess impacts on conservation areas, Addo Elephant National Park

- Identify and assess potential project related impacts (both positive and negative) for the construction and operational phases of the project using the prescribed methodology. Where feasible include the assessment of cumulative impacts.
- Outline mitigatory measures for the future management of potential project related impacts and include, where feasible, the individuals/organizations responsible for implementation
- Outline management recommendations for the construction and operational phases of the project

4.6.2 Faunal Assessment (to be included in biophysical assessment above)

- Conduct a site visit and desktop review of available literature to determine whether the study area falls wholly or partially within the distribution range of species listed as Vulnerable, Endangered or Critically Endangered and Protected.
- Conduct fieldwork to identify potentially important or unique faunal habitat on site
- Identify and assess potential project related impacts (both positive and negative) for the construction and operational phases of the project using the prescribed methodology. Where feasible include the assessment of cumulative impacts.
- Outline mitigatory measures for the future management of potential project related impacts and include, where feasible, the individuals/organizations responsible for implementation
- Outline management recommendations for the construction and operational phases of the project

4.6.3 Wetlands & Drainage Lines (Aquatic Assessment)

- Identify and delineate wetlands and drainage lines.
- Analysis of the potential aquatic sensitivity of these features.
- Details of the Present Ecological State (PES) of each watercourse and wetland.
- Identify and rate potential environmental impacts in terms of acceptable EIA methodology provided by Public Process Consultants
- Identify mitigation for negative and positive impacts
- Make appropriate management recommendations for the Environmental Management Programme Report

4.6.4 Paleontological Assessment

- Undertake a desktop Assessment in order to determine the type and location of fossils that may be present within the study area.
- Identify and assess potential project related impacts as per the prescribed methodology.
- Make appropriate management or mitigation recommendations in order to address the impacts identified.

4.6.5 Phase 1 Archaeological Assessment

- The area will be surveyed on foot to find as many visible archaeological sites and features as possible.
- All sites, features and material will be recorded by GPS coordinates.
- Site, features, material and general environment will be photographically recorded.
- Compile a report and recommendations which include an assessment of the potential impacts as a result of the development on the sites and proposals for mitigation and/or protection - towards a Phase 2 and possible Phase 3 investigation.

4.6.6 Soil Suitability Assessment

- Undertake soil analysis to establish the suitability of the soil for the proposed crops.
- Identify potential constraints imposed on the proposed farming activity by the soil / landscape characteristics of the site
- Identify and assess project related impacts as per the prescribed methodology
- Make appropriate management or mitigation recommendations in order to address the impacts identified.

4.6.7 Technical Input

The following technical input has been provided and considered in the EIA phase of the Assessment:

4.6.7.1 Water Demand

- An estimate of the increase in irrigation water usage and how this will be accommodated in the existing water entitlements.
- The determination of the size and configuration (design) of the balancing dam required for the storage of irrigation water.

4.6.7.2 Infrastructure Layout

- Design and configuration of internal roads, and irrigation infrastructure.