

## CHAPTER THREE: ASSESSMENT PROCESS AND PUBLIC PARTICIPATION

### 3.1 INTRODUCTION

The following section of the report provides an overview of the context and approach to the Section 24 G application, including public participation.

### 3.2 LEGAL OVERVIEW

The following provides an overview of the legislation applicable to this application.

#### 3.2.1 National Environmental Management Act (as amended)

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 NEMA (as amended) 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.

Section 24F (1) of NEMA states the following:

*"Notwithstanding the provisions of any other Act, no person may commence an activity listed in terms of section 24(2)(a) or (b) unless the competent authority has granted an environmental authorisation for the activity, and no person may continue an existing activity listed in terms of section 24(2)(d) if an application for an environmental authorisation is refused."*

Section 24G (1) of NEMA notes that on application by a person who has committed an offence in terms of section 24F(2) the Minister or MEC, as the case may be, may direct the applicant to -

- (a) compile a report containing -
  - i. an assessment of the nature, extent, duration and significance of the impacts of the activity on the environment, including the cumulative effects;
  - ii. a description of mitigation measures undertaken or to be undertaken in respect of the impacts of the activity on the environment;

- iii. *a description of the public participation process followed during the course of compiling the report, including all comments received from interested and affected parties and an indication of how issues raised have been addressed;*
  - iv. *an environmental management plan; and*
- (b) *provide such other information or undertake such further studies as the Minister or MEC may deem necessary.*

Section 28 (1) of NEMA notes the following:

*“Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.”*

As noted in Chapter One of this report an application for Basic Assessment was submitted to DEDEAT, Cacadu Region for the clearing of approximately 94 hectares of vegetation for the expansion of citrus production on Portion 23 a portion of 5 of 104 (94 ha); and the Remainder of Farm No 650 Swanepoels Kraal (136ha), Division Uitenhage, Sundays River Valley Municipality. In preparation of the Draft Basic Assessment Report and in order to assess the potential impacts of the project on the biophysical environment a site visit to the affected properties, on the 24 July 2012, identified that activities on site had commenced prior to the receipt of an environmental authorisation. The applicant immediately ceased with all operations on the site and voluntarily commenced with the Section 24G Application process. Early in August 2012, Mr Max Landule of the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), Compliance Division was notified of the clearing of the vegetation and a site visit was undertaken by Mr Landule, and the Applicant was instructed to commence with the Section 24 G Application Process for the cleared portions of the site. On 16 August 2012 an Application Form in terms of NEMA Section 24 G was submitted to the DEDEAT, Compliance Division. See copy attached as Appendix B.

The tables below list the activities in terms of the NEMA EIA regulations, 2010 GN R 543, 544, and 546, which required Basic Assessment and environmental Authorisation:

Table 3.1 Basic Assessment Listed Activities in terms of GN R 544 and GN R 546.

<b>Activity No</b>	<b>Activity</b>	<b>Activity Description</b>
GN R 544, 11 (xi)	<i>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.</i>	There is a drainage line located on the northern boundary of the cleared area on the site.  While no clearing of vegetation has taken place within the drainage line, clearing of vegetation has taken place within 32 meters of the drainage line. The specialist biophysical assessment has recommended a 32 meter no-go buffer around this drainage line for the

		operational phase of the project.  <b>The clearing of vegetation within 32 meters of this drainage line requires environmental authorisation.</b>
GN R 546, 2. (a) iii (ff)	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: (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 water storage dam proposed on site is outside an urban area and within 10 km's of National Park, it will have a storage capacity of 375 000 m <sup>3</sup> .  <b>The application for this listed activity forms part of the Basic Assessment for the intact portions of the site (remainder 74ha).</b>
GN R 546, 4 (a) ii (ee) (gg)	"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, the following: (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 area of a biosphere reserve;"	The applicant intends to use the existing internal vehicle tracks on the site, which may require minor maintenance and upgrading to facilitate access to the cleared area on the site, no additional roads are proposed.  <b>This activity does not require environmental authorisation.</b>
GN R 546, 13 (a) and (c) ii (ff)	"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 falls outside of an urban area within a CBA as per the Eastern Cape Biodiversity Conservation Plan (ECBCP) and is within approximately 3km of Addo Elephant National Park. More than 1 hectare of indigenous vegetation has been cleared.  <b>This activity requires environmental authorisation.</b>
GN R 546, 14 (a) i	"The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation, except where such removal of vegetation is required for: (1) purposes of agriculture or afforestation inside areas identified in spatial instruments adopted by the competent authority for agriculture or	This site falls outside of an urban area within a CBA as per the Eastern Cape Biodiversity Conservation Plan (ECBCP) and is within approximately 3km of Addo Elephant National Park. More than 5 hectares of indigenous vegetation has been cleared.  <b>This activity requires environmental authorisation.</b>

	<i>afforestation purposes (a) In Eastern Cape...: i. All areas outside urban areas."</i>	
GN R 546, 16. (iv) (a) ii (ff) (hh)	<p>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;"</p>	<p>The site is in the Eastern Cape, outside an urban area and portions of the site fall within a CBA1 as defined in the ECBP. The site is within 3 km's of Addo Elephant National Park.</p> <p>There is a drainage line located on the northern boundary of the cleared area on the site.</p> <p>While no clearing of vegetation has taken place within the drainage line, clearing of vegetation has taken place within 32 meters of the drainage line. The specialist biophysical assessment has recommended a 32 meter no-go buffer around this drainage line for the operational phase of the project.</p> <p><b><i>This listed activity will require environmental authorisation.</i></b></p>

### 3.2.2 National Water Act (Act 36 of 1998)

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 following provides examples of where a water use license or authorisation may be required:

- Project activities within 500 meters of a wetland
- Excavations/ disturbance to any wetlands
- Activities within the 1:100 year floodline or through a watercourse

The removal of vegetation around the watercourse on the site may require authorisation from the Department of Water Affairs. In addition, a portion of the cleared area falls within 500m of the

wetland on the properties. This may require retrospective authorisation from the Department of Water Affairs.

### **3.2.3 National Heritage Resources Act (NHRA) (Act 25 of 1999)**

Parts of sections 35(4), 36(3) (a) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply to the proposed project:

#### **Archaeology, palaeontology and meteorites**

Section 35 (4) No person may, without a permit issued by the responsible heritage resources authority—

- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

#### **Burial grounds and graves**

Section 36. (3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—

- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

#### **Heritage resources management**

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as –

- (c) any development or other activity which will change the character of the site –
  - (i) exceeding 5000m<sup>2</sup> in extent, or
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

An approval letter will therefore be sought from the relevant authority (i.e. SAHRA) confirming that notification was undertaken and that the process undertaken as part of this assessment process and outcomes in terms of heritage resources are acceptable.

### **3.2.4 Legislation and Guidelines Pertinent to this EIA Process**

The scope and content of this assessment 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

### **3.3 OVERVIEW OF APPROACH TO THIS ASSESSMENT PROCESS**

As outlined in section 3.2.1 above this report has been prepared in line with Section 24G (1) of NEMA to provide DEDEAT with the following information:

- A detailed description of activities that have taken place on the site
- A description of activities still to be undertaken on the site
- Mapping and description of the biophysical environment of the area cleared
- Outline of the Public Participation Process followed including supporting documentation
- An assessment of the impacts on the environment of the activity
- A description of mitigation measures undertaken or to be undertaken in respect of the consequences of or impacts on the environment of the activity;

- Environmental Management Programme
- Conclusions and Recommendations

In addition this report has been prepared to meet with the requirements for a Basic Assessment Report in terms of Section 21 and 22 of GN R 543 of the NEMA EIA regulations, 2010. Table 1.2 in Chapter One of this report indicates where the requirements of Section 21 and 22 of GN R 543 have been complied with in this report.

As noted in Chapter 1, section 1.3 there are certain limitations to the assessment of impacts as the activity on site has partially commenced with the clearing of vegetation. The assessment of alternatives including the no-go alternative, which could entail rehabilitation of the site, is assessed in Chapter Seven of this Report.

The following provides an overview of the key tasks undertaken in the Section 24G Assessment Process, with specific reference to the tasks undertaken for public participation.

### **3.3.1 Consultation and Correspondence with DEDEAT**

Early in August 2012, Mr Max Landule of the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), Compliance Division was notified of the clearing of the vegetation on the site without receipt of an environmental authorisation and a site visit was undertaken by Mr Landule, following which the Applicant was instructed to commence with the Section 24 G Application Process for the cleared portions of the site. On 16 August 2012 an Application Form in terms of NEMA Section 24 G was submitted to the DEDEAT, Compliance Division. See copy attached as Appendix B.

Further correspondence with the DEDEAT Cacadu Region and Compliance Division, dated 1 October 2012, requested confirmation of the approach towards this assessment process. Confirmation of the approach was received from the DEDEAT Compliance division on the 8 October 2012. Copies of correspondence with DEDEAT are attached as Appendix B of this Report.

### **3.3.2 Identification & Notification to I&APs**

The I&AP database used for the initiation of the Basic Assessment Process was reviewed and was used to notify I&APs of the Section 24G application process. **22 I&APs** were included on the database for the notification via Letter 1. A copy of the database indicating the interaction with I&APs is included as Appendix C of this report. No I&APs will be removed from the database unless specifically requesting to be removed.

The following methods were used to notify I&APs about the assessment process:

- **Letter 1 to I&APs** - All I&APs on the project database were provided with written notification of the Assessment Process, as well as a comment form (copies attached as Appendix D). I&APs were provided with a 14 day comment period to raise issues of concern which extended from the 10 October 2012 to the 23 October 2012

- **Newspaper Adverts** - The Section 24G Assessment process was advertised in the Herald of 10 October. See copy attached as Appendix E.
- **Site Notice Board** – A notice board advertising the Section 24G application was placed at the entrance to the site. See copy attached as Appendix E.
- **Availability of Information (website)** - All the documentation related to the proposed amendment is made available through the project website: [www.publicprocess.co.za](http://www.publicprocess.co.za).

### **3.3.3 Identification of issues for inclusion in the Draft Section 24G Assessment Report**

I&APs were afforded a 14 day period within which to register and raise issues relating to the Section 24G Application. The comment period extended from the 10 October 2012 to the 23 October 2012.

At the time of preparation of the Draft Section 24G Assessment Report for I&AP review no issues of concern had been raised by I&APs. One I&AP requested to be removed from the database, see copy of correspondence attached as Appendix F. The database for the review of the Draft Assessment Report will thus include **21 I&APs**.

### **3.3.4 Review of the Draft Section 24G Assessment Report**

All I&APs on the project database will be notified in writing of the 14 day review period for the Draft Report. Included with this notification will be an executive summary of the Section 24G Assessment Report and a comment form. A copy of the report will be made available on the website [www.publicprocess.co.za](http://www.publicprocess.co.za). Key I&APs and authorities will receive a hard copy or CD of the Draft Assessment Report.

The issues raised by I&APs will be considered for inclusion in a Comments and Responses Trail in the Final Report prior to submission to DEDEAT for their decision making.

### **3.3.5 Final Section 24G Assessment Report**

Based on the input received from I&APs the Assessment Report will be finalised prior to submission to DEDEAT for their decision making. All I&APs on the project database will be notified via Letter 3 of the submission of the Final Report and any additional comment period. The Final Report will be made available through the project website [www.publicprocess.co.za](http://www.publicprocess.co.za)

### **3.3.6 Environmental Authorisation and Appeal**

All I&APs on the project database will be notified of the outcome of the decision making process and the Appeal period. The notification will include the placement of one newspaper advertisement. The Authorisation will also be made available through the website [www.publicprocess.co.za](http://www.publicprocess.co.za)



### 3.4 ASSESSMENT OF IMPACTS

The following section outlines the assessment methodology and legal context for the specialist studies which have been undertaken for this application (Section 3: Assessment of Impacts, in DEAT Guideline 5, June 2006). The identification of potential impacts includes impacts that may occur during further phases of 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:

- Determining the current environmental conditions in sufficient detail so that there is a baseline against which impacts can be identified and measured.
- Determining 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 continued

As noted in Chapter 1, section 1.3 there are certain limitations to the assessment of impacts as the activity on site has partially commenced with the clearing of vegetation. The assessment of alternatives including the no-go alternative, which could entail rehabilitation of the site is assessed in Chapter Seven of this Report.

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 3.2: 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.

### 3.5 SPECIFIC ISSUES TO BE ADDRESSED IN SPECIALIST STUDIES

The following provides an overview of the specialist studies undertaken for this assessment process. Issues included in the specialist TOR have been identified through the specialist site visit.

#### 3.5.1 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.
- Assess the potential for the rehabilitation of the site
- 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

### **3.5.2 Faunal Assessment (to be included in biophysical assessment above)**

- 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.
- Include an assessment of rehabilitation of the site and the impact on fauna
- 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

### **3.5.3 Wetlands and Drainage Lines (to be included in biophysical assessment above)**

- Identify and delineate wetlands and drainage lines.
- Identify and rate potential environmental impacts
- Assess rehabilitation of the site and the impact on wetlands
- Identify mitigation measures for negative and positive impacts
- Make appropriate management recommendations for the Environmental Management Programme Report

### **3.5.4 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.

### **3.5.5 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
- Make appropriate management recommendations in order to address potential constraints.

### **3.5.6 Technical Input**

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

**3.5.6.1 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.

**3.5.6.2 Infrastructure Layout**

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