



Directorate: Development Management, Region 3 Shireen.Pullen@westerncape.gov.za | Tel: 044 814 2021

**REFERENCE:** 16/3/3/2/D2/19/0000/22

**ENQUIRIES:** Shireen Pullen **DATE OF ISSUE:** 19 September 2022

The Municipal Manager George Municipality PO Box 19 **GEORGE** 6530

**Attention: Ms. D. Power**Tel: (044) 801 9111

E-mail: <a href="mailto:dpower@george.gov.za">dpower@george.gov.za</a>

Dear Madam

# **ENVIRONMENTAL AUTHORISATION**

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014: PROPOSED TERTIARY EDUCATION AND MIXED-USE PRECINCT DEVELOPMENT AT THE GARDEN ROUTE DAM AND ASSOCIATED INFRASTRUCTURE ON A PORTION OF THE REMAINDER OF ERF 464, GEORGE

With reference to your application for the abovementioned, find below the outcome with respect to this application.

#### **DECISION**

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith—

(a) **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to **Alternative 2 (Preferred Alternative)**, described in the Final Environmental Impact Assessment Report ("FEIAR"), received by the Directorate: Development Management (Region 3) hereinafter referred to as "this Directorate" on 31 May 2022 as prepared

and submitted by *Sharples Environmental Services cc*, the appointed environmental assessment practitioner ("EAP").

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section E below.

### A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

The Municipal Manager George Municipality Ms. D. Power PO Box 19 GEORGE 6530

Tel: (044) 801 9111

E-mail: <a href="mailto:dpower@george.gov.za">dpower@george.gov.za</a>

The abovementioned applicant is the holder of this Environmental Authorisation (hereinafter referred to as "**the Holder**").

### B. LIST OF ACTIVITIES AUTHORISED

| Listed Activities   | Activity/Project Description   |  |  |  |
|---|--|--|--|--|
| Environmental Impact Assessment Regulations Listing Notice 1 of 2014, (as amended)  Government Notice No. 983 of 4 December 2014 (as amended)   |  |  |  |  |
| Activity Number: 9  |  |  |  |  |
| Activity Description:   |  |  |  |  |
| The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—  (i) with an internal diameter of 0,36 metres or more; or  (ii) with a peak throughput of 120 litres per second or more; excluding where—  (a) such infrastructure is for bulk transportation of water or storm water or storm water or storm water drainage inside a road reserve or railway line reserve; or  (b) where such development will occur within an urban area. | The proposed site is located outside of the urban area as defined by the competent authority. The stormwater infrastructure proposed will exceed the threshold of this activity. |  |  |  |

# **Activity Number: 12**

Activity Description:

The development of—

- (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or
- (ii) infrastructure or structures with a physical footprint of 100 square metres or more;

where such development occurs—

- (a) within a watercourse;
- (b) in front of a development setback; or
- (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding—
- (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;
- (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;
- (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;
- (dd) where such development occurs within an urban area;
- (ee) where such development occurs within existing roads, road reserves or railway line reserves; or
- (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.

**Activity Number: 19** 

Activity Description:

The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of

The pipelines to service the proposed development will cross a watercourse and will have a physical footprint of more than 100 square metres.

soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse:

but excluding where such infilling, depositing, dredging, excavation, removal or moving—

- (a) will occur behind a development setback;
- (b) is for maintenance purposes undertaken in accordance with a maintenance management plan;
- (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;
- (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or
- (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies

The installation of services to support the proposed development will result in the infilling or depositing of any material of more than 10 cubic metres into a watercourse.

# **Activity 24**

Activity Description:

The development of a road—

- (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or
- (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;

but excluding a road—

- (a) which is identified and included in activity 27 in Listing Notice 2 of 2014;
- (b) where the entire road falls within an urban area; or
- (c) which is 1 kilometre or shorter.

#### **Activity Number: 27**

Activity Description:

The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—

The road infrastructure to support the proposed development will exceed the threshold of this activity.

The proposed development will result in the clearance of more than 1 hectare of indigenous vegetation.

- (i) the undertaking of a linear activity; or
- (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

## **Activity Number: 28**

Activity Description:

Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:

- (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or
- (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;

excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.

The portion of land on which the development is proposed has historically been used for afforestation. The development site is included in the urban edge of the George Municipality, but outside of the urban area as defined by the competent authority.

### Environmental Impact Assessment Regulations Listing Notice 2 of 2014, (as amended)

### Government Notice No. 984 of 4 December 2014 (as amended)

# **Activity Number: 15**

Activity Description:

The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for-

- (i) the undertaking of a linear activity; or
- (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

The site is approximately 119Ha in extent. This includes some transformed areas, also indigenous vegetation. The proposed development will result in the clearance of more than 20 hectares of indigenous vegetation.

Environmental Impact Assessment Regulations Listing Notice 3 of 2014, (as amended)

Government Notice No. 985 of 4 December 2014 (as amended)

#### **Activity Number: 4**

Activity Description:

The development of a road wider than 4 metres with a reserve less than 13,5 metres.

- i. Western Cape
- i. Areas zoned for use as public open space or equivalent zoning;
- ii. Areas outside urban areas;
- (aa) Areas containing indigenous vegetation;
- (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or
- iii. Inside urban areas:
- (aa) Areas zoned for conservation use; or
- (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.

**Activity Number: 12** 

Activity Description:

The clearance of an area of 300m<sup>2</sup> or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance plan.

- (i) In Western Cape:
- i. 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;
- ii. Within CBAs identified in bioregional plans;
- iii. Within the littoral active zone or 100m inland from the high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; or

The road infrastructure to support the proposed development will exceed the threshold of this activity.

The proposed development will result in the clearance of more than 300 square metres of critically endangered vegetation.

iv. On land, where at the time of the coming into effect of this

Notice or thereafter such land was zoned open space,
conservation or had an equivalent zoning.

v. On land designated for protection or conservation purposes
in an EMF or a SDF adopted by the Minister.

The abovementioned list is hereinafter referred to as "the listed activities".

Activity 14 of Listing Notice 3 was also applied for but is not triggered. Although the proposed site is located outside the urban area and will include the development of pipelines which will cross a watercourse and will have a physical footprint of more than 10 square metres, the competent authority has not adopted systematic biodiversity plans or bioregional plans. This listed activity is therefore not applicable.

The Holder is herein authorised to undertake the following alternative that includes the listed activities as it relates to the development and development footprint area.

The proposal entails the development of the following components:

- Campus University / Research Institute / Academy which will comprise of an area of approximately
   13,66 hectares
- Waterfront Commercial Development which will cover an area of approximately 4,66 hectares
- Hotel and supporting infrastructure which will cover an area of approximately 1,55 hectares
- Medium Density Residential / Group Housing which will cover an area of approximately 5,47 hectares
- Apartments / Flats / Student Housing which will cover an area of approximately 4,84 hectares
- Free Standing Dwelling Houses which will cover an area of approximately 5,76 hectares
- Recreation Spaces / Sports Fields which will cover an area of approximately 7,57 hectares
- Roads which will cover an area approximately 7,6 hectares Parks / Natural Assets / Preservation Areas which will cover an area of approximately 67,39 hectares

The authorised development requires the clearance of more 20-hectares of indigenous vegetation, the crossing of watercourses, installation of service infrastructure, the development of roads with a reserve bigger than 13,5m and the development of infrastructure exceeding 100m<sup>2</sup> within 32 meters of a watercourse.

The proposal will be implemented approximate to the site development plan attached to this Environmental Authorisation as Annexure 2, subject to the conditions in section E below.

### C. SITE DESCRIPTION AND LOCATION

The site is situated in the North-Eastern part of George, adjacent to and south of the Garden Route Dam. The site is bordered by a higher order road to the South, namely Madiba Drive that leads to the NMMU Saasveld Campus. The neighbourhoods of Eden George and Loerie Park are situated directly to the west of the site. The Glenwood Agricultural Holdings are located south of Madiba Drive. The area is characterised by a mountainous area to the north, with residential uses to the West and South of the site. The site is currently vacant, containing a mixture of indigenous and alien vegetation species with various gravel roads on the site being utilised for recreational activities.

The coordinates of the centre of the proposed development footprint site:

| Latitude (S)       | Longitude (E)     |
|--------------------|-------------------|
| 33°57'53.63" South | 22°30'12.58" East |

SG digit code: C02700020000046400000

Refer to Annexure 1: Locality Plan and Annexure 2: Site Development Plan

The above is hereinafter referred to as "the site".

# D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Sharples Environmental Services cc % Ms Betsy Ditcham P.O. Box 443 MILNERTON 7435

Tel: 021 554 5195

E-mail: <a href="mailto:betsy@sescc.net">betsy@sescc.net</a>
Website: <a href="mailto:www.sescc.net">www.sescc.net</a>

#### E. CONDITIONS OF AUTHORISATION

### Scope and Validity Period of authorisation

1. This Environmental Authorisation is granted for the period from date of issue until 19 September 2042, the date on which <u>all the listed activities</u>, including post construction rehabilitation and monitoring requirements, will be deemed to be concluded at the site.

Further to the above, the Environmental Authorisation is subject to the following:

1.1 The installation of bulk services must commence by 19 September 2027.

Failing which, this Environmental Authorisation shall lapse, unless the environmental authorisation is amended in accordance with the relevant process contemplated in the Environmental Impact Assessment Regulations promulgated under the National Environmental Management Act, 1998 (Act no. 107 of 1998).

- 2. This Environmental Authorisation is subject to compliance with all the peremptory conditions (i.e.: 8, 11, 13, 21, 22, 25 and 26). Failure to comply with all the peremptory conditions prior to the physical implementation of the activities (including site preparation) will render the entire EA null and void. Such physical activities shall be regarded to fall outside the scope of the Environmental Authorisation and shall be viewed as an offence in terms of Section 49A(1)(a) of NEMA.
- 3. The Holder is authorised to undertake the listed activities specified in Section B above on the site as described in Section C above and in accordance with the Preferred Alternative described in the Final Environmental Impact Assessment Report.

The proposal entails the development of the following components:

- Campus University / Research Institute / Academy which will comprise of an area of approximately
   13,66 hectares
- Waterfront Commercial Development which will cover an area of approximately 4,66 hectares
- Hotel and supporting infrastructure which will cover an area of approximately 1,55 hectares
- Medium Density Residential / Group Housing which will cover an area of approximately 5,47 hectares
- Apartments / Flats / Student Housing which will cover an area of approximately 4,84 hectares
- Free Standing Dwelling Houses which will cover an area of approximately 5,76 hectares
- Recreation Spaces / Sports Fields which will cover an area of approximately 7,57 hectares
- Roads of an area which will cover an area approximately 7,6 hectares
- Parks / Natural Assets / Preservation Areas which will cover an area of approximately 67,39 hectares.

The development requires the clearance of more 20-hectares of indigenous vegetation, the crossing of watercourses with services infrastructure, the development of roads with a reserve bigger than 13,5m, the clearance of more than  $300\text{m}^2$  of endangered/critically endangered vegetation and the development of infrastructure exceeding  $100\text{m}^2$  within 32 meters of a watercourse.

The proposal will be implemented approximate to the site development plan attached to this Environmental Authorisation as Annexure 2, subject to the conditions contained in section E below.

- 4. This Environmental Authorisation may only be implemented in accordance with an approved Environmental Management Programme ("EMPr").
- 5. This authorisation replaces the partial approval for the development of a hotel and waterfront Ref: EG12/2/4/2/D2/11/0002/11 issued on 16 September 2014.
- 6. The Holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the Holder.
- 7. Any changes to, or deviations from the scope of the alternative described in Section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the Holder to apply for further authorisation in terms of the applicable legislation.

# Notification and administration of appeal

- 8. The Holder must in writing, within 14 (fourteen) calendar days of the date of this decision—
  - 8.1. Notify all registered Interested and Affected Parties ("I&APs") of -
    - 8.1.1. the decision reached on the application;
    - 8.1.2. the reasons for the decision as included in Annexure 3;
    - 8.1.3. the date of the decision; and
    - 8.1.4. the date when the decision was issued.
  - 8.2. Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended) detailed in Section G below;
  - 8.3. Draw the attention of all registered I&APs to the manner in which they may access the decision;

- 8.4 Provide the registered I&APs with the:
  - 8.4.1 name of the Holder (entity) of this Environmental Authorisation,
  - 8.4.2 name of the responsible person for this Environmental Authorisation,
  - 8.4.3 postal address of the Holder,
  - 8.4.4 telephonic and fax details of the Holder,
  - 8.4.5 e-mail address, if any, of the Holder,
  - 8.4.6 contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations (as amended).
- 8.5 The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&APs of this decision.
- 8.6 In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e., the listed activities, including site preparation, must not commence until the appeal is decided.

### Written notice to the Competent Authority

- 9 Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of any activities.
  - 9.1 The notice must make clear reference to the site details and EIA Reference number given above.
  - 9.2 The notice must also include proof of compliance with the following conditions described herein: Conditions: 8, 11, 13, 21, 22, 25 and 26.
- 10 Written notice must be given to the Competent Authority of any suspension of activities on the site, within 7 days of activities ceasing on site during the construction phase.

### Management of activity

- 11 The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation must be amended to include the following aspects and submitted for approval, prior to construction activities commencing:
  - 11.1 The EMPr must be amended to incorporate the following
    - 11.1.1 Scheduled timeframes for submission of monthly Environmental Control Officer (ECO) reports to the competent authority during the construction phase;
    - 11.1.2 The conditions contained in this Environmental Authorisation;

- 11.1.3 The management and demarcation of the No-Go area's (including the open space areas) and how these areas will be demarcated, prior to any earthworks / commencement of construction activities:
- 11.1.4 A map which clearly indicates the fire breaks and a fire management plan, which will be implemented to effectively manage ecological burns of the conservation areas and avoid the risk of any potential wildfires that might occur;
- 11.1.5 Incorporate a comprehensive invasive alien species management plan;
- 11.1.6 The redesign or relocation plan of the bridge proposed across the Klein Swart River Wetland.

  This must be done with the input from the Breede Gouritz Catchment Management Agency.
- 11.1.7 Final design for the watercourse crossings and a rehabilitation plan for the proposed instream water use activities associated with the development.
- 11.1.8 Management Plan for the conservation areas, as well as an agreement between the municipality and the private entity/authority that will be responsible for management of the conservation areas:
- 11.1.9 The final Site Development Plan which gives effect to the conditions of this authorisation;
- 11.1.10 A detailed stormwater management plan which is based on a detailed hydrological flood modelling plan developed by a qualified engineer. This stormwater management plan must also provide details regarding the specific Sustainable Urban Drainage Systems to be implemented to manage stormwater resulting from the proposed development and take due cognisance of Condition 22 of this authorisation.
- 11.1.11 A Landscaping Plan developed by a registered professional Landscape Architect.
- 11.2 The amended EMPr must be submitted to the Competent Authority for approval, prior to construction activities commencing on site.

**Note**: The revised EMPr must be submitted to the Competent Authority at least 90-days, prior to the construction activities commencing on site to ensure the competent authority is able to process / review the revised EMPr, prior to the intended date of commencement.

12 The EMPr must be included in all contract documentation for all phases of implementation.

### Monitoring

13 The Holder must appoint a suitably experienced Environmental Control Officer ("ECO") for the duration of the construction phase.

#### 14 The FCO must-

- 14.1 be appointed prior to commencement of any works (i.e. removal and movement of soil and / or rubble or construction activities commencing;
- 14.2 ensure compliance with the EMPr and Environmental authorisation and the provisions and conditions contained herein;
- 14.3 keep record of all activities on the site; problems identified; transgressions observed and a record/task schedule of all tasks undertaken by the ECO;
- 14.4 remain employed until all development activities are concluded, and the post construction rehabilitation and monitoring requirements are finalised.
- 15 A copy of the Environmental Authorisation, EMPr, any independent assessments of financial provision for rehabilitation and environmental liability, closure plans, audit reports and compliance monitoring reports must be kept at the site of the authorised activities and be made available to anyone on request, and where the Holder has website, such documents must be made available on such publicly accessible website.
- 16 Access to the site referred to in Section C must be granted, and the environmental reports mentioned in Condition 14 above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

# **Auditing**

- 17 The Holder must, for the period during which the environmental authorisation and EMPr remain valid ensure the compliance with the conditions of the environmental authorisation and the EMPr, is audited;
- 18 The frequency of auditing of compliance with the conditions of the environmental authorisation and of compliance with the EMPr, must be included in the EMPr for approval by the competent authority, and may not exceed intervals of 5 years.

19 The Environmental Audit Report(s), must –

19.1 be prepared and submitted to the Competent Authority, by an independent person with the relevant environmental auditing expertise. <u>Such person may not be the ECO or EAP who conducted the EIA process</u>;

19.2 provide verifiable findings, in a structured and systematic manner, on-

19.2.1 the level of compliance with the conditions of the environmental authorisation and the EMPr and whether this is sufficient or not; and

19.2.2 the ability of the measures contained in the EMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.

19.3 identify and assess any new impacts and risks as a result of undertaking the activity;

19.4 evaluate the effectiveness of the EMPr;

19.5 identify shortcomings in the EMPr;

19.6 identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;

19.7 indicate the date on which the construction work (or phases if it is a phased development) was commenced with and completed or in the case where the development is incomplete, the progress of the development and rehabilitation;

19.8 indicate the date on which the operational phase was commenced with and the progress of the rehabilitation:

19.9 include a photographic record of the site applicable to the audit; and

19.10 be informed by the ECO reports.

20 Environmental auditing must comply with the relevant legal requirements applicable at the time.

## Specific Conditions

21 The Open Space III areas (Parks / Natural Assets / Preservation Areas) which covers an area of approximately 67ha on the layout plan included in Annexure 2 below (hereinafter referred to as Conservation Areas) must be managed for a conservation outcome, maintaining the indigenous vegetation (biodiversity) and ecological processes. An agreement must be reached between George Municipality and the responsible management entity/authority that will be responsible for the management of the conservation areas (approximately 67 hectares of open space III) that forms part

of the proposed development and a copy of such agreement must be submitted to this Directorate, prior to commencement of any construction activities.

- 22 The No-Go area's (including the open space areas) must clearly be demarcated, prior to any earthworks or commencement of construction activities and should remain as such until the completion of the installation of services.
- A protective buffer area of 100m around all wetland areas must be maintained at all times during construction and operation. No development of structures or infrastructure (including pump stations) must be allowed inside this buffer area, except for watercourse crossings for the purpose of access roads.
- 24 All recommendations and mitigation measures contained in the Freshwater Impact Assessment must be included in the EMPr and must be adhered to and strictly implemented.
- 25 The stormwater management plan submitted in support of the development proposal must be amended and resubmitted to this Directorate prior to commencement of construction activities. The amendments must:
  - 25.1 Demonstrate how it is based on a detailed hydrological flood modelling plan which is developed by a qualified engineer.
  - 25.2 Demonstrate how it has the ability to develop, implement and monitor catchment litter management and water quality strategy;
  - 25.3 Include detail on specific Sustainable Drainage Systems to be implemented to manage stormwater resulting from the proposed development.
  - 25.4 include detail on installation of local or regional litter traps
  - 25.5 Ensure that all attenuation facilities allows for adequate capture of sediment.
  - 25.6 incorporate the management of peak flows, litter and water quality, including the lifecycle costing of the required maintenance to ensure that adequate resources are available so that design, once implemented, can be adequately managed and perform as intended.
- A search and rescue operation must be undertaken to locate any *Gladiolus fourcadei* plants that may be affected by the site clearance activities. All plants located on the subject property must be carefully removed and transplanted at a suitable site within the same habitat type within the conservation area, prior to commencement of construction activities.
- 27 The western sewage pump station must be located above the berm/swale referred to in condition 30 below, in order that any accidental spill or overflow will be caught by the berm/swale to prevent sewage from reaching the Garden Route Dam. The eastern pump station that is proposed to be within 100m of

the dam must be moved outside of the 100m buffer area and to the south of the dam wall so that any accidental spill or overflow will not flow into the dam. The location of this pump stations must be reflected in the final site development plan.

- 28 The proposed pump stations must be provided with emergency mobile generator units, to allow the continued operation of the pump stations during prolonged interruptions to the power supply.
- A 6-meter wide servitude must be registered in favour of the George Municipality on the position of the two existing 600mm raw water rising mains and the 450mm treated effluent pipelines.
- 30 The following recommendations made by visual specialist must be implemented:
  - 30.1 The development must be designed so that buildings, structures, and other improvements do not extend above the existing mountain ridgelines (high visual sensitivity) or alter the ridge profile significantly when viewed from the public streets, roads, water bodies or facilities.
  - 30.2 Structures must be sited below the ridgeline to preserve a natural topographic and vegetative profile. Ridgelines and prominent hillsides should be retained as open space through appropriate clustering and/or transfer of density to other parts of the development site.
  - 30.3 Infrastructure must be designed to conform to the natural topography and hillside setting of the project site.
  - 30.4 Buildings and associated infrastructure that will be located on the hillsides (moderate and low visual sensitivity) below the ridgelines should follow the contours of the site and blend in with the existing terrain to reduce any potential bulk and mass appearance.
  - 30.5 Infrastructure should be positioned to allow adequate space for tree planting and other vegetation screening interventions.
  - 30.6 Roof forms and rooflines of buildings must be broken into smaller building components to reflect the irregular forms of the surrounding natural features.
  - 30.7 The slope of building roofs must be oriented in the same direction as the natural slope.
- An infiltration berm/ trench/swale along the contour must be developed along the wetland buffer on the dam side of the development in order to slow surface runoff velocities and trap pollutants, prior to the water reaching the dam during the operational phase. The berm must be developed approximately along the 200m contour line on the western side of the development, sloping down to approximately 195m contour line on the eastern side of the development near the dam wall. It must be developed in such a way that storm water from the berm /swale must not be released into the dam, but into the watercourse below the dam wall.
- 32 The following mitigation measures need to be implemented to prevent or manage water pollution:
  - 32.1 Develop, implement and monitor catchment litter management and water quality strategy;
  - 32.2 Ensure adequate provision of sanitation services;

- 32.3 Ensure adequate provision of solid waste management services;
- 32.4 Where possible make use of a SUDS treatment train to manage water quality;
- 32.5 Install local / regional litter traps as suggested in the Aquatic Biodiversity Specialist Report; and
- 32.6 Ensure that all attenuation facilities have adequate space to allow for the capture of sediment prior to the discharge of stormwater.
- 33 All waste generated by the authorised development during the construction phase must be disposed of at a landfill site licensed in terms of the relevant legislation.
- 34 The following Resource Conservation Measures must be implemented and included in all sales agreements:
  - 34.1. All residential housing units must be fitted with a rainwater tank with a minimum capacity of 5000 litres for the collection and storage of rainwater from roofs.
  - 34.2. Rainwater collected from roofs must receive preferential use in the irrigation of gardens or other outdoor requirements.
  - 34.3. All units must be fitted with and use low flow showerheads, tap aerators and dual-flush toilets.
  - 34.4. All units must be fitted with and use energy-efficient lighting and heating designs.
- 35 No development may take place on 1:4 slopes or steeper.
- 36 Development must be set back behind the wetland buffer and the berm/swale referred to in condition 31. This will affect the sites for the proposed hotel site and waterfront commercial development. The section of the proposed Waterfront Drive that transects the conservation area must also be re-aligned to follow more or less the wetland buffer on the edge of the proposed development on layout plan included in Annexure 2.
- 37 Public access to the conservation area of approximately 67ha must be ensured at all times as well as unobstructed access over the dam wall to the east of the Garden Route dam.
- 38 Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains may only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant Heritage Resources Authority.

Heritage remains include: meteorites, archaeological and/or paleontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity;

marine shell heaps; stone artefacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; shipwrecks; and/or graves or unmarked human burials including grave goods and/or associated burial material.

#### F. GENERAL MATTERS

39 Notwithstanding this Environmental Authorisation, the Holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.

#### Amendment of Environmental Authorisation and EMPr

40 If the Holder does not start with all listed activities and exceed the threshold of each listed activity within the period referred to in Section G, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the relevant Competent Authority.

If the Holder wishes to extend a validity period specified in the Environmental Authorisation, an application for amendment in this regard must be made to the relevant Competent Authority, prior to the expiry date of such a period.

# Note:

- (a) Failure to lodge an application for amendment prior to the expiry of the validity period of the Environmental Authorisation will result in the lapsing of the Environmental Authorisation.
- (b) It is an offence in terms of Section 49A(1)(a) of NEMA for a person to commence with a listed activity if the competent authority has not granted an Environmental Authorisation for the undertaking of the activity.
- (c) An environmental authorisation may be amended where it relates to a change of ownership or transfer of rights and obligations.
- (d) On application, if the competent authority decides to grant environmental authorisation, the competent authority may issue a single environmental authorisation or multiple environmental authorisations in the name of the same or different applicants covering all aspects for which authorisation is granted.
- 41 The Holder is required to notify the Competent Authority where any detail with respect to the Environmental Authorisation that must be amended, added, substituted, corrected, removed or updated.

In assessing whether to amend or correct the EA, the Competent Authority may request information to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the Holder to apply for further authorisation in terms of the applicable legislation.

The onus is on the Holder to verify whether such changes to the environmental authorisation must be approved in writing by the relevant competent authority prior to the implementation thereof.

- 42 The manner and frequency for updating the EMPr must be as follows:
  - (a) Any further amendments to the EMPr, other than those mentioned above, must be approved in writing by the relevant competent authority.
  - (b) An application for amendment to the EMPr must be submitted to the Competent Authority if any amendments are to be made to the impact management outcomes of the EMPr. Such amendment(s) may only be implemented once the amended EMPr has been approved by the competent authority.

The onus is however on the Holder to confirm the legislative process requirements for the above scenarios at that time.

43 Where an amendment to the impact management outcomes of an EMPr is required before an environmental audit is required in terms of the environmental authorisation, an EMPr may be amended on application by the Holder of the environmental authorisation.

#### Compliance with Environmental Authorisation and EMPr

- 44 Non-compliance with a condition of this environmental authorisation or the EMPr is an offence in terms of Section 49A(1)(c) of the National Environmental Management Act, 1998 (Act no. 107 of 1998, as amended).
- 45 This Environmental Authorisation is granted for a set period from date of issue, during which period all the listed activities must be commenced with and concluded, including the post-construction rehabilitation; monitoring requirements and environmental auditing requirements which must be concluded.
- 46 This Environmental Authorisation is subject to compliance with all the peremptory conditions (i.e.: 8, 11, 13, 21, 22, 25 and 26.). Failure to comply with all the peremptory conditions prior to the physical implementation of the activities (including site preparation) will render the entire EA null and void. Such physical activities shall be regarded to fall outside the scope of the Environmental Authorisation and shall be viewed as an offence in terms of Section 49A(1)(a) of NEMA.

47 In the event that the Environmental Authorisation should lapse, it is an offence in terms of Section 49A(1)(a) of NEMA for a person to commence with a listed activity, unless the competent authority has

47A(1)(a) of NEMA for a person to confinence with a listed activity, officess the competent doff

granted an Environmental Authorisation for the undertaking of the activity.

48 Offences in terms of the NEMA and the Environmental Impact Assessment Regulations, 2014, will render

the offender liable for criminal prosecution.

G. APPEALS

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date

the notification of the decision was sent to the holder by the Competent Authority –

1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations

2014 (as amended) to the Appeal Administrator; and

1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in

the matter and the decision-maker i.e. the Competent Authority that issued the decision.

2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the

date the holder of the decision sent notification of the decision to the registered I&APs-

2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations

2014 (as amended) to the Appeal Administrator; and

2.2 Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ

of State with interest in the matter and the decision-maker i.e. the Competent Authority

that issued the decision.

3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the

registered I&AP and the Organ of State must submit their responding statements, if any, to the

appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of

the appeal submission.

4. The appeal and the responding statement must be submitted to the Appeal Administrator at the

address listed below:

By post: Western Cape Ministry of Local Government, Environmental Affairs and

Development Planning

Private Bag X9186

CAPE TOWN

20

8000

By facsimile:

(021) 483 4174; or

By hand:

Appeal Administrator

Attention: Mr Marius Venter (Tel: 021 483 3721)

**Room 809** 

8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za.

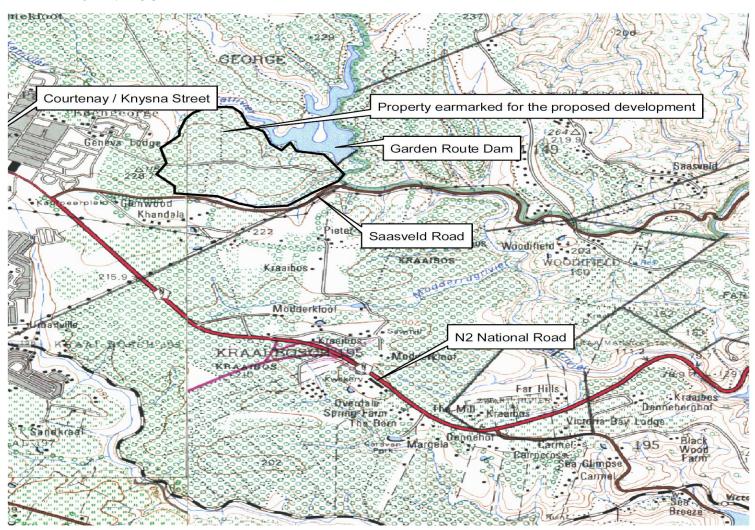
5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from the Appeal Administrator at: Tel. (021) 483 3721, E-mail <u>DEADP.Appeals@westerncape.gov.za</u> or URL http://www.westerncape.gov.za/eadp.

### DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the Holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

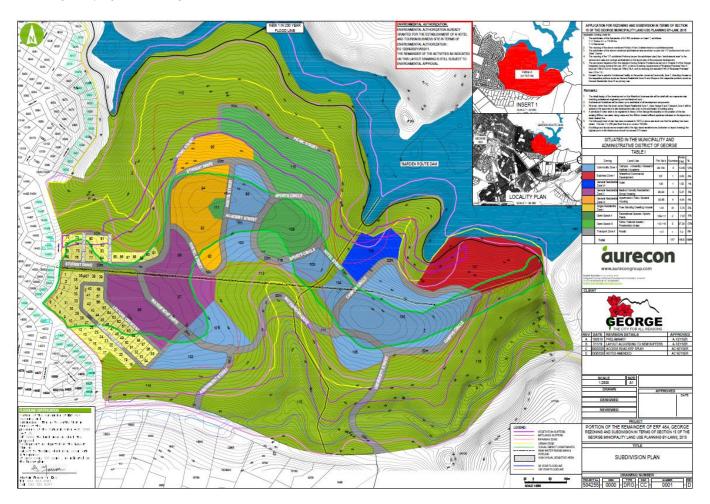
| Your interest in the future of our             | environment is appreciated. |   |
|--|-----------------------------|---|
| Yours faithfully                               |                             |   |
| MR. ZAAHIR TOEFY<br>DIRECTOR: DEVELOPMENT MANA | GEMENT                      |   |
|  |                             |   |
| DATE OF DECISION: 19 SEPTEMB                   | ER 2022                     |   |
| COPIED TO:                                     |                             |   |
| Ms. B. Ditcham (Sharples Environme             | ntal Services cc- EAP)      | Email: <u>betsy@sescc.net</u> <u>info@sescc.net</u> |
| FOR OFFICIAL USE ONLY:                         |                             |   |
| EIA REFERENCE NUMBER:                          | 16/3/3/2/D2/19/0000/22      |   |
| NEAS REFERENCE:                                | WCP/EIA/0001022/2022        |   |
|  |                             |   |

**ANNEXURE 1: LOCALITY MAP** 





# ANNEXURE 2: SITE DEVELOPMENT PLAN



#### ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, inter alia, the following:

- a) The information contained in the Application Form received on 11 January 2022, the amended Final Environmental Impact Assessment Report (FEIR) and EMPr submitted together with the FEIR on 31 May 2022;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation, Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- d) The comments received from I&APs and responses to these, included in the revised FBAR submitted to this Directorate on 21 October 2021:
- e) The balancing of negative and positive impacts and proposed mitigation measures; and
- f) Sufficient information was made available in the reports submitted to understand the environmental and spatial context of the development proposal and the case officer is also familiar with the site and surrounding area. The site observations and verbal feedback received from officials from this Directorate who conducted a site inspection on 20 July 2022 and the site inspection conducted by the competent authority and an official from this Directorate on 17 September 2022 also adequately informed the decision.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

#### 1. Public Participation

A sufficient public participation process was undertaken, and the applicant has satisfied the minimum requirements as prescribed in the NEMA EIA Regulations, 2014 for public involvement. The public participation process included:

- identification of and engagement with interested and affected parties (I&APs) including organs of state which have jurisdiction in respect of the activity to which the application;
- desktop assessment was undertaken in order to ascertain the erven and farm numbers of the
  adjacent affected landowners & occupiers. In addition, the list of I&APs from the previous
  environmental authorisation process was consulted and relevant contacts included onto the
  register;
- A letter drop was conducted in order to notify adjacent land owners;
- An initial 30-day period for registration was undertaken during July 2020;

- fixing a notice board at the site in 20 June 2021;
- giving written notice to the owners and occupiers of land adjacent to the site and any alternative site where the listed activities are to be undertaken, the municipality and ward councillor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 20 June 2020;
- A pre-application process was undertaken and the pre-application Scoping Report (pre-app SR)
  was made available for 30 days form 19 June 2020 to 20 July 2020, and the PPP period was
  extended to 21 August 2020;
- The draft SR was made available for period 15 April 2021 until 17 May 2021;
- Draft EIR was made available for period 09 February 2022 until 11 March 2022; and
- The placing of a newspaper advertisement in the 'George Herald' on 18 June 2022.
- > The following Organs of State provided comment on the proposal:
  - Department of Health
  - Garden Route District Municipality (Planning and Economic Development, Roads, Community Services)
  - Breede-Gouritz Catchment Management Agency (BGCMA)
  - Department of Agriculture
  - Heritage Western Cape
  - ❖ Department of Environmental Affairs & Development Planning
  - Heritage Western Cape
  - Garden Route District Municipality
  - South African National Roads Authority Limited (SANRAL)
  - Western Cape Government: Department of Transport and Public Works
  - Department of Transport and Public Works Chief Directorate: Road Planning Western Government
  - Department of Forestry
  - CapeNature: Landscape East Conservation Intelligence Management Unit
  - Garden Route District Municipality: Planning and Economic Development
  - George Municipality (Civil and Engineering Services, Human Settlements, Spatial Planning, GIS, and Environmental Management, Land Use Management, Electro-technical Services, Municipal Manager)
  - South African National Parks (SANParks)

Numerous objections were received from registered Interested and Affected Parties living in George. These include comments raised on Facebook posts and surveys, the WhatsApp message groups and the press article, which have generated large public interest in the development proposal. Objections were also submitted via the EAP and directly to the competent authority.

The issues and concerns identified and raised by I&APs included the following:

The loss of the area for recreational use such as cycling, hiking, running or jogging and canoeing as well as restriction of access to the Garden Route Dam area was a major concern raised by most interested and affected parties. However, this Directorate is satisfied that the proposed development will not result in the loss of these facilities nor restrict public access to the dam or any of the aforementioned facilities, as the proposed development aims to improve access for cyclists, trail runners, walkers and canoeists, fishermen, amongst others to the existing recreational areas around the dam. Since this area has historically been used by the public as a recreational area, the proposal aims to enhance this aspect by dedicating or maintaining these uses within the natural open spaces of approximately 67ha.

Many cyclists, runners and walkers utilise the main gravel road which leads to the dam wall to gain access to the trails situated on the eastern and northern side of the dam wall. The EAP further motivates that George is fortunate to have such areas for recreation and many residents use these areas both on weekdays and weekends. There are also trails in the area to be developed, but some of these trails are currently overgrown. There are a large number of open areas in George which need to be maintained by the City's parks and gardens Department on a weekly basis. According to the EIR the City's budget to maintain parks and gardens is not going to be able to cover the maintenance and construction of paths and trails on this property and therefore developing paths and trails in tandem with the development of the area is the only way a long-term sustainable system of paths and trails can be implemented. As such, this Directorate requires that the municipality enters into a management agreement with the responsible entity/authority to ensure that the open space area is appropriately managed.

The final EIR also states that the waterfront precinct that is proposed as part of the development is also a public amenity that will be accessible to everyone. This is a component of the development that was already previously approved. According to the EIR facilities at the waterfront will include coffee shops, canoe hire and possibly a sports hall, amongst other facilities, to cater for the various sports enthusiasts.

The need for a new university was also questioned in light of the recent covid pandemic that prevailed over the last two and a half years. The type of education facility and housing developments proposed were unclear to the I&APs and issues and concerns pertaining to the public participation process were also raised by I&APs. This Directorate agrees that George is fast expanding, and it can be anticipated that over the next 20 to 30 years George will expand and more and more students need a place for tertiary education purposes. In the future, without further expansion of education facilities current and future generations will have to leave George so that they can attend educational facilities in other cities simply because those courses are not offered in George. The EIR further states that the biggest lesson that covid taught us is that things can change in an instant and we need to make provision and

be ready for these changes. The EAP stated in her response to the need for an education facility, that as we enter the Fourth Industrial Revolution we will need more space for students, not only for traditional careers but for the careers that the Fourth Industrial Revolution will bring. The existing Saasveld Campus only makes provision for a few fields of study and it is anticipated that this new education facility would make provision for what is not already catered for by Saasveld Campus.

According to the EIR a number of objections were raised regarding the type of housing proposed and the possibility of low cost housing forming part of the proposed development. Other objections also included social impacts related to students (i.e. noise, protesting, littering and disturbance of peace in the surrounding residential area) and impacts on the value of existing property prices. Although it can be agreed that many universities are associated with riots, noise and protesting, it is premature to undoubtedly say that this will be the case with this facility. The EIR submits that the preferred alternative was then changed to ensure that there is a buffer of single residential houses on the Western side of the road which are designed to be the same or similar size to those that are currently bordering Meyer and Stander Streets. Furthermore, according to the EIR, although a variety of types of housing forms part of the proposal that could cater for undergrad students, lecturers, visiting lecturers, and post graduate students through to single residential erven, low-cost housing does not form part of this proposal. As stated in the EIR, there is currently an existing demand for a range of housing opportunities in this area, together with predicted increase in demand due to the proposed development. According to the EIR it is estimated that the provision of residential opportunities on the site will also absorb the demand for on-site housing by future employees, post-graduate students and other users of this space. It is envisioned that these residential spaces would be based on the principles of inclusivity, integration, choice, variety and sustainability.

Other objections that were lodged relate to the loss of sense of place and the natural beauty of the area. According to the EIR the property has been included within the urban edge of the George Spatial Development Framework (SDF) and is therefore designated for urban development. The proposed site is largely surrounded by existing residential uses on the west. Residential land uses presented within this development proposal have been strategically located in order to lessen the impact on surrounding residential land uses and to conform to the type of housing already in existence within this area of George. The EIR contains mitigation measures recommended by the Visual, Aquatic and Ecological specialists. These Specialists proposed both ecologically and aesthetically motivated methods to mitigate the effect of the loss of the natural beauty of the area. These measures have been included as conditions in the Environmental Authorisation as well as the EMPr. The enhancement of open spaces and the strategic placement of sports fields and other infrastructure has also been used to mitigate these impacts. In addition to this, formal walkways, cycle and mountain bike paths would be developed to ensure that not only are they maintained and protected, but also designed in a way that shows off the scenic views according to the EIR.

Although the potential pollution of the Garden Route Dam is a major concern, the placement of the proposed eastern pumpstation downstream of the dam, the condition to locate the western pumpstation above a berm/swale and the addition of a back-up generator at the existing Glenwood pumpstation will remedy this impact. There will also be a 100m buffer zone, which already forms part of the Kat River Nature Reserve, that will be established around the Garden Route Dam within which no development may occur. A condition to this effect was also included in this authorisation to ensure that any form of potential pollution is avoided/prevented. Although the threat is real, the Stormwater Management Plan, compiled by Aurecon in January 2020, addresses the potential for pollution of the water resource. This stormwater management plan will further be amended to address the issues and concerns raised by the freshwater specialist as well as BGCMA relating to potential pollution of the water resource. The amended stormwater management plan must be submitted as part of the amended EMPr and approved by this Department, prior to the commencement of construction activities.

The development of an infiltration berm/ trench/swale along the contour directly upslope of the riparian zone of the dam should be constructed on the dam side of the development in order to slow surface runoff velocities and trap pollutants, prior to the water reaching the dam during the operational phase of the authorised development. This has also been included as a condition of this authorisation.

In light of the current issues pertaining to sewage spills into the Kat River, sewage management and the construction of a sewage pump station were raised as concerns early in the application process. It was recommended that, should it be impossible to avoid these, the pump station must be placed downstream of the Garden Route Dam in case of possible spillage or overflow. This has also been included as a condition of approval in this authorisation.

According to the final EIR, the sump of the pump station would receive the sewage flow and act as a storage vessel from where sewage is periodically pumped. The sump would comprise an active volume and a relatively small internal emergency storage volume depending on the size of the sump, however, it is preferred that an extended emergency storage facility be built especially due to the sensitive nature of this development area. The emergency storage capacity will further provide additional safety when the pumps fail, in that it provides time for the Municipality's maintenance operatives to make the necessary repairs as well as catering for normal power outages. A minimum storage capacity that is equivalent to four to six hours' flow (George Municipality suggest 8 hours flow) at the design flow rate would be provided. The emergency storage would be provided outside of the pump station.

In terms of break downs, the pump stations would be provided with emergency mobile generator units, to allow the continued operation of the pump stations during prolonged interruptions to the power supply. The suggestion of using mobile generators rather than having a permanent generator room is acceptable due to the fact that the emergency storage tank will have enough "downtime" capacity for normal power outages. Mobile generators can be stored at the Municipality's Maintenance facility in close proximity to the development where it can be better maintained.

This Department is satisfied that all the issues and concerns raised by the respective Organs of State and I&APs were adequately captured and addressed in the Environmental Impact Assessment Report by the EAP.

#### 2. Alternatives

No property or site alternatives were considered as part of the environmental impact assessment of the proposed development.

Development of the Preferred Layout Alternative:

The first layout option that was proposed was amended to address inputs received from the I&APs. Furthermore, the social amenities and facilities provided for on the layout plan were specifically provided according to the guidelines in the Development Parameters for the provision of facilities within settlements in the Western Cape. This location was chosen as an ideal location, because it is located within the George Urban Edge and has been specifically set aside and planned for development in various Municipal Planning Frameworks, including the Spatial Development Framework (SDF) and Integrated Development Plan (IDP).

After various feasibility studies, socio-economic analyses, stakeholder workshops and site visits with a range of specialists, the preferred alternative lay-out was developed. This considered the recommendations made by the specialists and attempted to mitigate the visual impact of the proposed development on the surrounding area, the proximity of the existing residential suburb to the student accommodation and university, the requirement for aquatic buffer zones and vegetation corridors.

Preferred Alternative.

The preferred alternative entails the development of the Garden Route University Precinct which consist of the following components:

- Campus University / Research Institute / Academy of an area of approximately 13,66 hectares
- Waterfront Commercial Development of an area of approximately 4,66 hectares
- Hotel and supporting infrastructure of an area of approximately 1,55 hectares
- Medium Density Residential / Group Housing of an area of approximately 5,47 hectares
- Apartments / Flats / Student Housing of an area of approximately 4,84 hectares
- Free Standing Dwelling Houses Housing of an area of approximately 5,76 hectares
- Recreation Spaces / Sports Fields of an area of approximately 7,57 hectares
- Roads of an area of approximately 7,6 hectares
- Parks / Natural Assets / Preservation Areas of an area of approximately 67,39 hectares. These open space areas will improve access for cyclists, trail runners, walkers and canoeists, fishermen, amongst others to the existing recreational areas around the dam. This area has historically been used by the

public as a recreational area and will be continued to be used as such. The proposal aims to enhance this aspect.

According to the EIR the development was designed in such a way to address the issues raised during the public participation process and takes into account the recommendations made by the specialists. In addition to the differences in the number of residential units and sizes of the land uses proposed, the preferred alternative comprises of revised road layouts and placement of the different land uses, taking into consideration the mapped ecological constraints and the visual impact on the scenic routes.

The EIR submits that environmentally sensitive areas were taken into account in the site development plan. Riparian areas have been maintained in the development proposal with selected buffer areas placed around these riparian zones. In addition, the presence of Ecological Sensitive Areas (ESA's), Critical Biodiversity Areas (CBA's) and other sensitive ecosystems have also informed the placement of open areas within the development layout. This Department is satisfied that the site development plan in its current form will not result in any unacceptable negative impacts on the receiving environment.

The habitat for the Critically Endangered *Gladiolus fourcadei* was investigated by the Biodiversity Specialists in the Scoping Phase of this proposal. A detailed survey was undertaken by CREW together with the specialist as a foundation for the area set aside for this species and the proposed layout was informed by the results. According to the findings of the field survey that was conducted, the *G. fourcadei* plants do not occur in numbers beyond the area set aside for their conservation. There will therefore not be a loss of sensitive habitats in relation to *G. fourcadei*.

The core of the campus will be located centrally in the eastern half of the site and away from the existing residential areas and in close proximity to the NMMU Saasveld campus. A mix of Single Residential and Group Housing land uses are proposed on the western portion of the site to establish greater integration between the existing neighbourhood and the newly proposed land uses towards the north-west of the site. Furthermore, variety of types of housing that could cater for undergraduate students, lecturers, visiting lecturers, post graduate students through to single residential erven, forms part of the development proposal.

According to the EIR the variety of public uses will remain accessible to the community of George as well as the campus users. These public uses include mountain biking, hiking, picnicking and canoeing on the dam. The proposed recreation facilities have been strategically located within the development layout. Recreational spaces have been located in such a way to ensure that these facilities do not cause any nuisance to the existing residential developments adjacent to the site and will simultaneously serve as public spaces in off-peak times. Environmentally sensitive areas have been taken into account and riparian areas have been maintained in the development proposal with selected buffer areas placed around these riparian zones.

According to the EIR the placement of the Hotel and Tourism Business component has been done in such a way that it captures the natural beauty of the site, which will assist in attracting investment. The Hotel area will be linked to the business area with a pedestrian bridge and this precinct could also include a Business School and possible tourism related training facilities. The proposed waterfront area will serve or function as a potential link between land and water where a variety of activities could take place from local trade to relaxation activities for visitors.

The proposal will be implemented approximate to the site development plan attached to this Environmental Authorisation as Annexure 2), subject to the conditions included in this environmental authorisation.

### "No-Go" Alternative

The option of not implementing the activity means that development will be established and none of the impacts, positive or negative, associated with the construction and operation of the development will be experienced.

It is the opinion of this Department that the socio-economic benefits of this project largely outweighs the negative impacts associated with the development proposal. Furthermore, the implementation of the EMPr and the adherence to the conditions of approval of this authorisation will ensure that no significant adverse impacts will result from the proposed development.

## 3. Impact Assessment and Mitigation Measures

#### 3.1 Topography of the site

The EIR describes the site as a low, flat-topped ridge area with gentle to moderately steep sloping sides and featuring indents where the landscape has been eroded into small valleys by drainages. A larger drainage valley lies along the southern boundary and the Garden Route Dam shoreline lies close to the northern boundary of the proposed site. The southern edge of the site is characterised by steep slopes while the northern half of the site, except for the drainage areas are more gradual. The development is proposed mostly on these gradual areas with some minor exceptions.

#### 3.2 Environment

According to the information presented and recent Biodiversity Sensitivity Analysis that was conducted, the majority of the property was a former pine plantation area which has undergone substantial disturbance. The EIR further submits that the proposed site has been exposed to at least three uncontrolled burns during the last 12 years and has been substantially invaded by alien invasive plants

during this period. The site can therefore be described as a highly disturbed and formerly transformed habitat. However, there is a narrow belt along the Garden Route Dam shore, the public picnic area and the small river along the southern boundary of the site that is free of pine trees. Originally the area would have consisted of Fynbos on the flatter "upland" areas and Forest/Thicket in the valleys and on valley slopes. Some remnants of these natural vegetation types persisted during the forestry cultivation period and are the source for the current apparently natural vegetation cover.

#### Conservation status of the site

There are small pockets of the site identified as Critical Biodiversity Areas (CBAs). This includes a portion of wetland habitat in the south and terrestrial habitat in the eastern area of the site. The majority of the site is however considered to have potential for restoration or is mapped as an ecological support area (ESA 1). According to the EIR, the reasons for this conservation status include Threatened Vertebrate and Water Resource Protection and a segment along the dam in the northern part of the site being part of the Katrivier Nature Reserve. These areas have been excluded from the development footprint. The aquatic or wetland and Terrestrial CBA 1 areas are located in the southern most drainage line of the proposed site and in the south-eastern corner of the site. These areas are invaded by alien invasive plants and considered to no longer serve the intended purpose. Notwithstanding, these areas are also excluded from the development areas. The terrestrial CBA 2 occurs in a narrow band within the southeastern portion of the study site as well as in the north-eastern side. During the site visit it was established that the majority of the north-eastern areas are completely transformed and invaded by alien vegetation. Other than the very small and isolated patches of remnant forest, there is no original natural vegetation type on the proposed site. It can therefore be concluded that the area does not contain any significantly sensitive intact original indigenous vegetation and most of it consists of resilient pioneer vegetation, which can currently be classed as being of relatively low sensitivity. The small forest patches, which are not pristine, but have also been impacted by the loss of "supportive' forest edge and Fynbos vegetation, represent relatively sensitive vegetation in the study area. This is supported by the findings of the biodiversity assessment,

#### Climate Change corridor

CapeNature highlighted in their comment on the development proposal that the site is located within a climate change corridor which should remain in a functional structure and composition for biodiversity. According to CapeNature these areas play an important role in landscape connectivity, as well as supporting the functioning of protected areas and critical biodiversity area and represent the best option for promoting resilience to climate change and the persistence of biodiversity as they provide pathways for the movement of plants and animals in response to environmental change. They also support the natural movement of species between populations to ensure population viability. This will provide opportunity for connectivity between the proposed development and the surrounding

areas. Based on ground truthing and the fragmented nature of the site (isolated between a man-made dam and the Nelson Mandela Drive road) together with the amendments made to the preferred alternative lay-out, this Department is of the opinion that despite the identification of the site as a climate change corridor, the proposed development will not retract from the objectives of the climate change corridor.

#### <u>Aquatic Environment</u>

The EIR submits that the proposed site is located within the Quaternary Catchment K30C of the Coastal Gouritz Water Management Area and the South-eastern Coastal Belt Ecoregion and the Outeniqua Strategic Water Source Area for Surface Water. Numerous aquatic habitats, including an artificial wetland was identified within the proposed site. The specialist found that the most severe potential impacts associated with the development will likely be habitat disturbance or loss due to flow modifications, erosion and sedimentation as a result of new road and pipeline crossings and increased stormwater runoff.

The aquatic buffer of 20m around wetland areas are regarded as no-go areas and no infrastructure (except for road crossings) or development of any sort will be permitted within these areas. This was also included as a condition of approval.

## <u>Butterfly Survey</u>

According to the survey conducted by David Edge and Associates in October 2019, eight butterfly species were identified within the study site. The rare and endemic Aloeides species such as A. pallida subspecies could potentially also be found on site due to its habitat being present at the proposed site. However, none was found during the survey. The other eight butterfly species that were found are commonly found all over George. This Department is therefore satisfied that no rare or threatened butterfly species will be affected by the proposed development.

# <u>Fauna</u>

Due to the proximity of the proposed site to residential areas, as well as the use of the site for recreational purposes, the site has been subjected to a high incidence of anthropogenic disturbances such as forestry activities, municipal maintenance activities, public recreational use and even squatting. According to the EIR predatory domestic dogs and cats from the adjacent residential areas have also contributed to faunal disturbance. In light of this, only the most tolerant of the larger vertebrates still occur in the study area. This includes the bushbuck (*Tragelaphus scriptus*), bushpig (*Potamochoerus porcus*) and baboon (*Papio ursinus*), all of which generally persist in the area, even in pine tree plantations. The more sensitive habitat species like blue duiker, grysbok, leopard (presence identified as a concern during the PPP) and honey badger have retreated into areas of lower disturbance in the mountains and forests to the north and east.

According to the EIR the long-tailed forest shrew is listed as Near Threatened due to the increasing loss of forest habitat. The indigenous forest-loving species are known to occur in the area, but only in true Forest or Forest or Fynbos transition areas and not forest areas that has been transformed to the extent of this site. The fynbos golden mole and Cape golden mole are considered likely to occur in the study area. The golden moles are restricted to fynbos and forest habitat. The white-tailed rat is endangered due to large-scale loss of habitat which includes Fynbos, Renosterveld and southern Savannah Grassland. If this species does occur in the area, its continued existence will be ensured by retaining areas of the natural rehabilitating Fynbos habitat as open space, however, none of these species were found during the assessment of the site. The African wildcat is common and widespread, and used to be listed as a Red Data species, because they freely hybridize with domestic cats and no longer occur in genetically pure populations near to developed settlements. The striped weasel is likely to occur in the study area and it is under threat due to habitat and prey reduction.

Due to the lay-out of the proposed development and the inclusion of approximately 60 hectares of open space (including watercourses and wetlands), this Department is satisfied that these areas will have adequate habitat in the unaffected riverine, dam shore and forest areas.

#### Flora

The EIR submits that the Red Listed and Critically Endangered *G fourcadei* falls within the river and climate corridor ESA 2, Terrestrial CBA 2 as well as the Aquatic CBA1 or wetland. The habitat for the Critically Endangered Gladiolus fourcadei was investigated by the Biodiversity Specialists in the Scoping Phase of this proposal. A detailed survey was undertaken by Custodians of Rare and Endangered Wildflowers (CREW) together with the specialist as a foundation for the area set aside for this species and the proposed layout was informed by the results. According to the findings of the field survey conducted, the *G. fourcadei* plants do not occur in numbers beyond the area set aside for their conservation. In light thereof, there will not be a loss of sensitive habitats in relation to *G. fourcadei*. The specialist elaborates that the development of the entire proposed development area will not result in the loss of vegetation of significance to conservation, a significant loss of biodiversity or threaten any important ecological process that sustains the biodiversity of the area. In light thereof, this Department is of the opinion that the proposed development will not result in any significantly negative impact on the botanical environment.

#### 3.3 Planning

Activity need and desirability

According to the EIR the proposal is consistent with all the major planning frameworks (Western Cape Spatial Development Framework (PSDF), the Eden District Spatial Development Framework (EDSDF), George Spatial Development Framework (MSDF) and the George Integrated Development Plan

(George IDP). The proposal will provide much needed additional housing opportunities in the area and also attract investment to the town of George.

This Directorate agrees that the proposed development, especially the tertiary institution component will enhance the social opportunities for all members of society and would generate social upliftment in a way that very few other land uses would. Furthermore, there are currently no other institutes of this nature in George, or within 300km of George. According to the EIR the proposed institution would create a unique opportunity for citizens of George and will not cater for anything already catered for at Nelson Mandela Metropolitan University of Technology- Saasveld. Having an educational institution within George will also give students who experience financial difficulty an opportunity to study while staying at home. Education would also create social upliftment over the long term by indirectly addressing any unemployment issues in George. Therefore, it is envisioned that this development proposal would hugely contribute to social upliftment in George, both in the short and long term. This Directorate agrees therewith.

### **PSDF**

According to the EIR the proposed development directly meets the vision of the PSDF as it involves the establishment of an educational institution or place of learning and innovation, with the aim of providing an opportunity to attain good quality education to all members of society. The EIR submits that the proposed development will also address the vision of 'Working Cape' as a variety of short and long-term employment opportunities would be created through the proposed development, both during the construction and operational phases. The proposed development will also contribute to 'Connecting the Cape' as the nature of the proposed development will not only attract people from all over George, but also all over the region, country and world, while simultaneously creating a unique area within which to work, live, learn and play.

### George SDF

According to the George SDF the site is located within the urban edge of George and is zoned undetermined. The SDF earmarks the site for "urban development" and it has been earmarked as such since prior to the partial approval for the Hotel and Waterfront development in 2014. The George SDF notes that the development of George should reinforce George city's regional service centre role through attracting higher order, high quality education and health facilities, regional government administration and commercial headquarters. The proposed development is also compatible with and supports the key principles and objectives contained in the relevant key land use planning and policy documents that pertain to the area.

### George IDP

The George Integrated Development identifies 5 Strategic Goal (SG) which can be achieved by the proposed development. The first SG is the identification of an educational and research hub and to facilitate the continued growth of NMMU in George. Although the type of tertiary education facility is not cast in stone at the moment, the proposed development may contribute to this goal. The second SG is to create and facilitate an enabling environment for economic development in George, which the development proposal will accomplish. The third SG is to establish incubators, clusters and centres of excellence to contribute meaningfully to the demands of a growing economy. These centres can be linked to and benefit from the proposed university. The fourth goal is to establish a science park to emphasise the importance of science and technology in the modern society will also have the potential to be satisfied by the proposed development. The fifth goal is to promote George as a sports tourism and business destination. According to the EIR the same can be accomplished for George through the proposed development, as was the case with Stellenbosch University.

# National Development Plan (NDP)

The National Development Plan states that by 2030, South Africa needs an education system that includes an expanded higher-education sector that can contribute to rising incomes, higher productivity and the shift to a more knowledge-intensive economy. The aim is that by 2030, one in six people will be a university graduate. This is one of the strongest indicators of expanding access to university education. In light of the fact that a large component of the development proposal represents the university precinct, the proposed development will largely contribute to this goal.

Since the development is compatible with most of the forward planning documents for the area, this Department is of the opinion that the proposed development will be ecologically sustainable and socially and economically justifiable.

### 3.4 Traffic Impact

George is currently served by three phases of the George Integrated Public Transport Network (George IPTN). As Kraaibosch and George Campus is rolled out, it is anticipated that these developments will be well served by an extended Phase 1 of the George IPTN. With the intention of providing access through public transport to the site, it is imperative that the site is not only accessible through one access point. As such, the development proposal introduces two new access points along Madiba Drive, which will be accompanied by the formalisation of the existing informal access point along Stander Road. With multiple access points to the site, inclusivity is encouraged, and traffic congestion is relieved.

According to the TIA the proposed development will be accessed from three points:

Access 1 along Stander Street,

Access 2 along Saasveld road (between Meyer Street and Access 3)

Access 3 along Saasveld Road (opposite Road 1).

Access 1 is situated at an existing intersection, access 2 along Saasveld Road is situated 300 metres to the east of Meyer Street and access 3 along Saasveld Road is situated 600 metres to the east of access 2.

Access to the proposed development area during construction will be provided east from Stander Street. No upgrades to the existing road infrastructure are required at this point in time. This road will however be upgraded following construction of the internal roads.

The two (2) main access roads to the campus after construction will be North from Madiba Drive, whereby the design of the roads will be a combination of earthworks, filling and a bridge over the existing watercourse on site. The watercourse crossing might be a combination of culverts and earth fill, but this can only be confirmed during the design stage. The proposed detail regarding crossing of watercourses is included in the Engineering Services Report (Aurecon, 2020). The final design will be included in an amended EMPr, prior to the commencement of construction.

Furthermore, the Saasveld-Madiba Drive/Kraaibosch Road traffic circle forms part of the Kraaibosch Roads Master Plan (Ref: EG 12/2/1-AG 3-5541/05 approved by this Directorate on 11 March 2009.

This Directorate is satisfied that there will be no significantly negative traffic impacts that will result from the proposed development.

#### 3.5 Socio-Economic

The socio-economic studies found that a university/research institute/academy would become a regional attraction and would greatly contribute to the growth of George. It also states that educational institutions are, in a sense, recession proof, as people still need to be taught no matter the state of the economy. This is very important in a country like South Africa where economic growth and job creation remain a huge challenge.

The EIR states that due to the nature of such institutions, the development proposal illustrates a focused cluster of various buildings in order to accommodate various institutions on the site. The diversity of institutions will be a crucial part of the creation of a mixed-use, vibrant, inclusive, sustainable and technologically advanced educational precinct in George. The proposed placement of these buildings also eliminates the possibility of the creation of exclusive spaces and further encourages pedestrian traffic through these spaces through the inclusion of NMT infrastructure.

Due to the envisioned diversity of these educational institutions, an expansion of the core campus is proposed towards the north-west of the main campus. This expansion continues the inclusive, vibrant and sustainable nature of the main campus by also emphasising pedestrian movement and by harnessing and maintaining the presence of natural vegetation and green corridors which will allow the open spaces to be managed better. This Department is satisfied that the proposed development will result in a positive socio-economic impact for the citizens of George and that it will stimulate growth of the town in a positive way.

The Social Impact Assessment (SIA) concluded that the proposed George educational facility is supported by National, Provincial and Local policy and planning documents. The establishment of the proposed facility also supports the George SDF, which notes that the development of George should reinforce George city's regional service centre role through attracting higher order, high quality education. The construction and operational phase of the proposed development will also create and unlock social and economic benefits for George and the local economy. These include the creation of employment and business opportunities during both the construction and operational phase, as well as the promotion of economic development. The proposed development also provides an opportunity to create a well-designed educational facility that is complimented by a recreational open space system consisting of natural open spaces, sports fields and parks. The findings of the SIA also highlight the benefits of universities for small towns, such as George.

According to the SIA, the potential negative social impacts such as increase traffic and potential noise caused by students which may affect nearby or adjacent residential areas. Although these impacts cannot be fully mitigated, they are deemed to be localised. The positive impacts on the other hand will benefit the broader community and the economy of George. The establishment of the proposed educational facility on the Remainder of Erf 464, is therefore supported by the findings of the SIA. The waterfront and Hotel component of the proposed development will also attract investors to George which will benefit the larger society.

### 3.6 Heritage / Archaeological Aspects

Heritage Western Cape confirmed that the site is not deemed sensitive and issued an approval without the need for any further investigations/assessments.

Considering the above, the view is held that the applicant has adequately considered the heritage and archaeological aspects and that the proposed development will not result in significant negative impact on these aspects. The competent authority is satisfied that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of the National Heritage Resources Act, 1999 and

the comments and recommendations of the relevant heritage resources authority with regard to the proposed development have been taken into account.

#### 3.7 Visual

It is proposed to change the land use character and existing sense of place of the site from a largely undeveloped site to a built-up mixed-use development. The proposed development would impact on the "sense of place" of the area to sensitive receptors that can see the development. In addition, the landscape character of the surrounding scenic routes would be compromised. The campus and sports facilities would further result in additional lighting at night, which would be visible from the surrounding landscape. This Directorate is however satisfied that the mitigation principles and measures included in section 8 of the visual impact assessment will adequately mitigate these impacts.

#### 3.8 Services

George Municipality has confirmed that the proposed development is included in the general growth and development infrastructure planning.

#### Water

According to the EIR George is supplied with water mainly from the Garden Route Dam, but it also makes use of various other pumped sources such as from the Malgas and Kaaimans Rivers. The water is purified at the George WTP (Water Treatment Plant). Water is supplied to all areas within George through a network of bulk water lines distributing water to and from each reservoir supply area. The George Municipal Water Master Plan indicates that the proposed development falls within the George Main zone. With the supply spread over a wide area, according to the GLS Water Master Plan the existing reservoirs together with proposed upgrades will have sufficient storage capacity and capacity for fire flow conditions to accommodate this development.

George Municipality has also confirmed that the proposed development will receive its water from the associated infrastructure for the 20MI/day extension of the existing water treatment works that is currently in the planning phase and the already approved new rising main Ref: 16/3/3/1/D2/20/0004/17 for which environmental authorisation was issued on 7 September 2017. This Directorate is satisfied that there will be sufficient capacity in the Municipal grid once these upgrades are completed.

#### Sewage

The proposed development falls within the Glenwood Pump Station (PS) sub-drainage area which drains to the Outeniqua Wastewater Treatment Works (WWTW). Wastewater generated from the proposed development will gravitate and be pumped by the two proposed pump stations on the site through rising mains and gravity pipelines to the Glenwood PS and from there into the existing system towards the Outeniqua WWTW, where it will be treated.

According to the GLS Sewer Master Plan for the Municipal area, insufficient capacity exists at the Outeniqua Wastewater Treatment Works. The Outeniqua WWTW is currently undergoing upgrades to increase its capacity and should have capacity to service the proposed development.

This proposed development area requires two (2) new sewer pump stations due to the site topography according to the 14 June 2019 GLS report. The pump stations are required to drain approximately 70% of the total development with the remainder able to gravitate. The design of the proposed sewer pump stations will conform to pump station design pump capacities. Each pump station will be designed to accommodate the flow rate that gravitates towards it. The pump stations will have variable speed pump sets to accommodate the varying nature of the incoming sewer flows. Provision will be made for sufficient emergency storage at the pump stations in order to mitigate events such as power outages, blockages and breakdowns.

George Municipality: Technical Services Department confirmed that the Municipality will conclude on the 10 MI extension to the Outeniqua WWTW capacity in March/April 2023. As part of the BFI/RBIG R1,1billion grant received in the 2021/22 financial year the Municipality is in the process of addressing the main sewer pumpstation upgrades that accommodate the proposed development. The pipe network reinforcements to the existing network are included in the George Municipality's Sewer Master Plans and will be implemented as and when needed. It is also a condition of this authorisation that all upgrades must be in place prior to commencement of construction activities.

#### Stormwater Management

According to the EIR, the development's stormwater will be managed in a responsible manner and be safely discharged into the surrounding drainage system, without any detrimental impacts to the receiving environment. This Department agrees that this can be achieved with strict implementation of the mitigation measures contained in the stormwater management plan and the amendments required as per this authorisation.

An infiltration berm/ trench/swale along the contour will also be developed upslope of the riparian zone of the dam, along the edge of the proposed development. This structure will be constructed on the dam side of the development in order to slow surface runoff velocities and trap pollutants, prior to the water reaching the dam during the operational phase in an attempt to manage stormwater resulting from the proposed development.

### 3.9 Summary of Impacts

The most significant impacts associated with the proposed development, in the construction and operation phase, includes the impacts to the Freshwater Resources (habitat and biota), the loss of indigenous vegetation, traffic and safety impacts and the visual impact associated with change of

sense of place. However, this Department is of the opinion that, with the implementation of the mitigation measures included in the EMPr and this authorisation these impacts can be mitigated to an acceptable level. This Department is further convinced that the positive impacts that will result from the development outweighs the anticipated potential negative impacts that may result from the proposal.

### Scope and Validity Period of authorisation

The applicant has indicated that the construction activities (installation of services) should be completed within a period of 5years. The environmental authorisation's validity period has been granted for a period of twenty (20) years, during which period the establishment different components of the proposed development must commence and be concluded, including the post-construction rehabilitation and monitoring, and submission of the final environmental audit for the installation of services. In light of the proposed implementation programme, the monitoring and post-construction rehabilitation can be adequately incorporated in the construction phase. The Holder is required to substantially implement the proposal within a period of 20 years after the environmental authorisation is issued. Where the activity has been commenced with, the EIA Regulations, 2014 allow that (upon application) the period for which the environmental authorisation is granted may be extended for a further period of 5-years.

# 4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), inter alia, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts
  of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such
  consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

#### 5. Conclusion

After consideration of the information and factors listed above, the Department made the following findings:

- (a) The identification and assessment of impacts are detailed in the final EIR received by this Department on 31 May 2022 and sufficient assessment of the key identified issued and impacts have been completed.
- (b) The procedure followed for the impact assessment is adequate for the decision-making process.
- (c) The proposed mitigation of impacts identified and assessed, curtails the identified negative impacts.
- (d) The EMPr proposed mitigation measures for the pre-construction, construction and rehabilitation phases of the development and were included in the FEIR. The mitigation measures will be implemented to manage the identified environmental impact during the construction phase.

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with an approved EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

| <br>END |  |
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