

9. PLAN OF STUDY FOR ENVIRONMENTAL IMPACT ASSESSMENT

Potential environmental impacts (biophysical and socio-economic) associated with the proposed PSS in the Steelpoort area have been identified in the Environmental Scoping Study (ESS). All potentially significant impacts will be further investigated and assessed within the Environmental Impact Assessment (EIA) phase of the project through specialist studies. These studies will consider the preferred site identified during the site selection process in the Environmental Scoping Study, namely **Site A3**. The access roads to the proposed preferred site, Site A3, have been preliminarily investigated. Two alternatives for the permanent access road to Site A3 will be taken through to the EIA phase and both these alternatives will undergo a detailed comparative assessment within the EIA Report. The EIA Report will identify environmental sensitivities associated with each road alternative and nominate the preferred access road alignment for Site A3, with regards to the environmental sensitivities in association with Eskom. The proposed permanent access road alternatives are included overleaf.

Mitigation measures will be proposed, where required, and these will be contained in the Environmental Management Plan (EMP) to be compiled during the EIA phase.

The EIA phase will aim to adequately investigate and address all potentially significant environmental issues in order to provide the National Department of Environmental Affairs and Tourism (N DEAT – the lead authority), the Limpopo Department of Economic Development, Environment and Tourism (L DEDET – commenting authority) and the Mpumalanga Department of Agriculture and Land Affairs (M DALA – commenting authority) with sufficient information to make an informed decision regarding the proposed project.

9.1. Approach to Undertaking the Environmental Impact Assessment Phase of the Project

The following outlines the proposed approach to undertaking the EIA phase of the project. It is believed that the proposed approach will adequately fulfil the environmental authorities' requirements, the requirements of the EIA Regulations (2006) and the objectives of environmental best practice, so as to ensure transparency and to allow an informed decision regarding the proposed project to be made.

9.1.1. Authority Consultation

- Pre-application Consultation

Consultation with N DEAT, L DEDET and M DALA was initiated prior to the commencement of the environmental studies for the project, in order to determine the lead authority for the project as well as specific authority.

requirements regarding the proposed project. During these consultations, it was determined that N DEAT would be the lead authority, with L DEDET and M DALA to act as commenting authorities.

Ongoing consultation with all relevant authorities, including L DEDET, M DALA, the Department of Water Affairs and Forestry (DWAF), the South African National Heritage Resources Agency (SAHRA), the local municipalities and councils, and all other authorities identified during the Environmental Scoping Study (ESS) phase of the project (and further ones that may be identified during the EIA phase) will continue throughout the duration of the project. Authority consultation is therefore seen as a *continuous process* that takes place through the duration of the environmental investigations.

- Subsequent meetings with Authorities

Authority meetings will be held during the EIA phase of the project – as well as during the authority review period of the ESR, if necessary – so as to ensure the Authorities' continued understanding of the proposed project and to ensure that all requirements of the Authorities are met by the environmental team.

9.2. Application for Authorisation

An application for authorisation in terms of Section 24(5) read with Section 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), in respect of an Activity Identified in terms of Notice 1 and Notice 2 (Regulation 386 and 387) of the said Act was submitted to N DEAT on 04 September 2006 for their consideration.

This application was followed, upon acceptance of the application, by the ESS phase of the project which aimed to identify potential impacts associated with the proposed project and to nominate a preferred alternative site for detailed consideration within the EIA phase of the project.

9.3. Environmental Impact Assessment

9.3.1. Aims of the Environmental Impact Assessment

The EIA will aim to achieve the following:

- to provide a detailed assessment of the social and biophysical environments affected by the proposed project;
- to assess impacts on the study area in terms of environmental criteria;
- to identify and recommend appropriate mitigation measures for potentially significant environmental impacts; and
- to undertake a fully inclusive public participation process to ensure that I&AP issues and concerns are recorded and addressed.

9.3.2 Issues not requiring further assessment

Based on the findings of the Environmental Scoping Study, the following issues were identified as being of low significance, and therefore not requiring further investigation within the EIA:

- Climate and Topography

Impacts associated with climatic and atmospheric conditions within the proposed study area are considered to be of negligible to low significance and will therefore not be assessed further in the EIA phase of the project. Potential impacts of dust, which might be either ameliorated or exacerbated by climatic aspects such as precipitation and wind, will be addressed in the section on Air Quality.

Impacts associated with Topography are also considered to be of low significance and topography as such will not be investigated further during the EIA phase. However, potential impacts on drainage may be significant and these will be assessed as part of the Hydrological study, and the results the geotechnical survey of the study area should be reviewed and included within the EIA report.

With the implementation of appropriate mitigation measures and appropriate design of the pumped storage scheme and associated infrastructure, the potential impacts associated with climate and topography are anticipated to be of low to negligible significance. No additional detailed studies are, therefore, required to be undertaken during the EIA phase with regards to climate and topography.

- Air Quality

Based on the studies conducted within the ESS, it is not anticipated that a more detailed air quality assessment would be required within the EIA phase of the project. However, the ESS-phase studies did not include quantification or modelling of potential emissions.

It is recommended that detailed, site-specific mitigation measures be developed in the EMP phase in order to avoid or ameliorate potential negative air quality impacts during the construction, operational and / or decommissioning phases of the proposed project.

9.3.3. Detailed Studies to be undertaken as part of the EIA

A number of potentially significant issues were identified within the Scoping Study. These issues require further investigation within the EIA phase in order to ensure that potential environmental impacts associated with the proposed project are limited/minimised or avoided through mitigation.

- Potential Impacts on Wetlands

Specialist input: Paul da Cruz - SiVEST

The preferred site will be studied through detailed field investigations during the EIA phase which will primarily entail more detailed delineation and field investigation of wetlands identified during the scoping phase. The aim of this assessment will be to determine the level of impact of the proposed PSS in the Steelpoort area on the wetlands that would be likely to be affected by the proposed scheme. This will be done by analysing the potential impact of the proposed scheme on the ecological and hydrological functioning of the potentially affected wetlands (this will be done using Wet Ecoservices and through a present ecological status and Ecological Importance and Sensitivity (EIS) analysis). These tools will be used to determine the value and functioning of the wetlands, so that this can be weighed up (along with loss of other biodiversity features) against the proposed socio-economic benefits of the proposed project.

The wetland specialist will consult closely with the ecological and hydrological specialists, as well as with the project engineers on the project team in determining potential impacts, and in suggesting potential mitigation measures.

- Potential Impacts on Surface Water

Specialist input: Mark Stewart and Andre Pretorius – GCS (Pty) Ltd

The potential impacts that the proposed development may have on surface

water resources was assessed at each of the three candidate sites. The favoured alternative site had the lowest impact on surface water, as both the upper and lower reservoirs will be off-stream. However, due to the magnitude of the reservoirs more detailed surface water studies will be conducted in the EIA phase, where the negative impacts associated with the proposed scheme will be assessed in greater detail and these include:

- o Assessing evaporative losses
- o Increase in run-off and flow velocities
- o increased impermeable surface areas
- o Altered flow patterns
- o Fluctuating discharges
- o Sustainability the hydrological regime

Suitable mitigation measures will be provided for each impact and will be included in the EMP, to prevent the degradation of the watercourses.

- Potential Impacts on Groundwater Quality

Specialist input: Mark Stewart and Andre Pretorius – GCS (Pty) Ltd

Given the nature of the proposed pumped storage scheme the potential for groundwater contamination at the preferred alternative is likely to be low due to the lower ground water resources at the preferred alternative. However, a detailed description and thorough understanding of the groundwater environment in terms of both quantity and quality will take place during the EIA phase. It includes data and information generated by current monitoring programmes in the wider area.

Site-specific geotechnical investigations will be used to obtain this information. Further, the synergies between the latter investigation and the EIA study of the groundwater environment will be explored to serve a broader groundwater function. This may include the conversion of selected geotechnical exploration boreholes into long-term groundwater monitoring facilities. In the light hereof, the approach and methodology to be employed for the forthcoming EIA of the site will therefore entail the following site-specific activities:

- o The assessment of aquifer parameters and water table conditions;
- o Identify impacts that can be anticipated to be associated with the development;
- o The assessment of groundwater quality, including major inorganics, selected organics (e.g. PO₄, DOC), selected trace metals (e.g. Fe, Mn, Cr, Cd) and BTEX compounds;
- o Delineation of any wetlands on the preferred site (Site A3); and

- The assessment of contaminant containment and mitigation measures, including long-term groundwater monitoring facilities and controls.
- Potential impacts on Ecology
Specialist input – Dewald Kamfer and Riaan Robbeson – Bathusi Environmental Consulting

The EIA will investigate in detail the fauna and flora of the preferred site, but will also focus on either areas identified in the screening investigation and/or ESS, or possibly areas identified by the relevant specialists as being important. The public participation process will be important here as key interest groups regarding biodiversity will be consulted, including parties such as South African National Parks (SANParks). The findings of the detailed investigations will result in the compilation of site-specific mitigation measures which could involve recommendations such as the following:

- Possible removal (relocation / search and rescue) of specimens of sensitive species away from the proposed site to other suitable areas (including consideration of the potential success of relocating certain plant species); and/or
- Design of the site (in terms of exact location and layout) to avoid certain sensitive areas.

The identification of sensitive species will lead to species-specific mitigation measures. The specific details of the proposed flora and fauna specialist assessment work is detailed below.

- Flora
Specialist input: Riaan Robbeson – Bathusi Environmental Consulting

Considering the findings of the vegetation Scoping study it is likely that there will be impacts on the vegetation associated with the pumped storage scheme, although these will be localised and of high significance due to the pristine nature of the vegetation in the area. The preferred alternative study site is situated within a vegetation type which is described by various botanical scientists as threatened, and as the site is located within a Sekhukhuneland Centre of Endemism and the number of species of concern is therefore high. Any development in this area should, therefore, be approached with caution.

The habitats of potentially occurring Red Data species will be determined and identified within the study area for the preferred site. Fieldwork, including site visits, will be carried out to determine the extent of these species' occurrence in the area.

The fieldwork component will be undertaken in sensitive environments, areas of untransformed natural vegetation and any other areas where it is deemed necessary. These areas will be walked to ensure that all possible sensitive plant communities and habitats of threatened species are covered and investigated.

Deliverables will include the following:

- in-depth botanical survey of the preferred site (Site A3), specifically for the reservoir and power station/substation sites as well as the sites of any other associated infrastructure such as roads;
- assessment of the significance of all identified impacts;
- confirmation of the possible presence of Red Data plant species along the route;
- assessment of the significance of any impacts on these Red Data species; and
- development of detailed, site-specific mitigation and management measures to avoid or ameliorate any temporary and permanent impacts. As part of the Environmental Management Plan, an alien control and monitoring program will be developed for implementation, starting during the construction phase and to be carried over into the operation phase. Ideally, this should not be limited to the study site alone, but should include the larger area and will require co-operation from the Local Authority, tribal authorities and landowners.

- Fauna

Specialist input: Dewald Kamfer – Bathusi Environmental Consulting

According to the findings of the fauna Scoping study undertaken for the proposed project, there is the likelihood that terrestrial and small subterranean mammals could be potentially impacted on by the development of the pumped storage scheme. These potential impacts will more than likely be as a result of construction of the proposed facility and soil pollution from possible chemical/fuel spills.

Further detailed fauna studies will therefore, be undertaken at and in the vicinity of the nominated preferred site during the EIA phase of the project in order to determine the probability of the potential impacts identified within the study area as well as the significance of these impacts. Areas identified during the scoping process as high potential with regards to biodiversity and probability of occurrence of Red Data species will be addressed during the EIA phase using physical sampling methods.

Detailed mitigation measures should also be provided to minimize those impacts associated with removal of vegetation as a result of construction of the proposed facility.

Deliverables will include the confirmation of the possible presence of Red Data fauna species at the preferred site and the assessment of the significance of any potential impacts on them. Detailed management and mitigation measures will also be compiled to avoid or ameliorate potential negative impacts on fauna.

- Potential Visual/Aesthetic Impacts

Specialist input: Lourens du Plessis – MetroGIS

A visual impact assessment for all aspects of the project will be undertaken. Due to the fact that the development of the reservoirs is likely to have visual impact a detailed visual impact assessment will need to be compiled taking into account the cumulative impacts of the scheme.

The visual impact of the proposed development including the two 45m high communication masts and a construction village (housing 200 people at the Upper dam site and 500 people at the Lower dam site) and associated infrastructure should be assessed within the EIA together with other crucial issues related to the visibility of the proposed reservoirs. These issues should aim to quantify the actual visual impact associated with the project and to identify areas of perceived impact.

Other issues/criteria to be addressed by the visual impact assessment within the EIA phase will include:

- Visual Distance/Observer Proximity to the scheme (Apply the principle of reduced impact over distance);
 - Viewer Incidence/Viewer Perception (Identify areas with high viewer incidence and negative viewer perception);
 - Landscape Character/Land Use Character (Identify conflict areas in terms of existing and proposed land use);
 - Visually Sensitive Features (scenic features or attractions);
 - General Visual Quality of the affected area;
 - Visual Absorption Capacity of the natural vegetation;
 - The effect of existing man-made structures on the visual exposure;
 - Potential visual impact of lighting (after-hours operations and security); and
 - Potential mitigation measures.
- Potential Impacts on Traffic

Specialist input: Adrian Brislin – Goba (Pty) Ltd

The following transport issues were identified in the scoping phase:

- o Transport of heavy components for construction;
- o Construction traffic over the construction period;
- o Transport of employees to the new site once operational; and
- o Road traffic loading of each of the above.

The preliminary results indicate that the traffic impact associated with the Pumped storage scheme are low, however more detailed studies are required in the EIA. The detailed study will investigate the issues identified in the scoping phase to determine and evaluate the impact of each at the preferred alternative. Mitigating measures would also need to be identified and described, which will form part of the Environmental Management Plan.

- Potential Noise Impacts

Specialist input – Derek Cosijn

The noise impact study was omitted from the scoping study as the noise pollution will be identical across all sites. The major impacts are likely to occur during the construction phase of the project – these will be assessed in detail during the EIA phase in which potentially significant noise impacts will be identified. Detailed, site-specific mitigation and management measures will be developed for inclusion in the EMP in order to reduce the potential noise impact during the construction and operational phases.

During the operational phase the noise impact is likely to be of little significance due to the fact that the power house will be dug deep into the earth. This detailed noise impact assessment will be undertaken for the proposed pumped storage scheme in accordance with SANS 10328, SANS 10103, WHO and World Bank Standards.

- Potential Impacts on Tourism

Specialist input – Dave Blair – SiVEST

Background Tourism information generated in the scoping phase was obtained primarily from existing information in the area, but this was also supplemented by a field trip to the site. SiVEST Selatile Moloi will not focus on the detail of the tourism activities relating to their sustainability, occupancy rates (for example) or feasibility; however, the tourism activities that are currently being practiced within a reasonable radius of the proposed scheme will be identified and an assessment conducted on whether the proposed development would have any effect (positive or negative) on the

tourism industry in the area. Furthermore, current tourism potential will be compared to anticipated “after the scheme” tourism potential in the study area, with specific focus on Site A3, the preferred site.

The impact of the proposed development will be assessed using the following impact assessment methodology to determine significance:

- Extent
- Duration
- Intensity
- Probability of occurrence

The proposed impacts will be evaluated during the construction, operation and decommissioning phases. Cumulative impacts will also be assessed.

It is anticipated that a status quo assessment of tourism in the relevant areas will be followed by a tourism impact assessment of the proposed developments in the EIA phase.

- Potential Impacts on Sites of Archaeological, Cultural and Historical interest
Specialist input: Johnny van Schalkwyk – National Cultural History Museum

Several archaeological resources have been identified in the vicinity of the proposed site. A detailed Heritage Impact Assessment including a Phase 1 Archeological Impact Assessment will therefore be conducted during the EIA phase to identify the location and significance of each and every heritage resource that might be impacted upon by the proposed PSS in the Steelpoort area. Site-specific, detailed management and mitigation measures will furthermore be compiled for inclusion in the Environmental Management Plan (EMP).

Investigations during the EIA phase of the project will primarily make use of field work of the preferred site identified during the ESS. The public participation process will be important in highlighting potential heritage resources for which no formal record exists (e.g. graves, etc).

Archaeological and Palaeontology studies will be undertaken in the EIA phase of the project and the necessary approvals from the South African Heritage Resource Agency (SAHRA) will be obtained prior to any development or construction. Any other heritage resources that may be impacted upon by the project such as built structures over 60 years, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewsapes will be assessed in the EIA phase.

- Social Impact Assessment

Specialist input: Anita Bron – MasterQ Research

Potential social impacts will be investigated within a Social Impact Assessment (SIA). The purpose of the SIA will be to provide a systematic analysis in advance of the likely impacts the proposed project could have on the day-to-day life of affected persons and communities, their activities, social structure and development.

As part of a Social Impact Assessment, information will be obtained from those that are affected by the proposed development and those that live in close proximity. Therefore, interested and potentially affected groups will be consulted to determine their perceptions and attitudes regarding the proposed development and associated changes. This will include one-one-one interviews with a number of affected parties, including landowners. Potential land claims in the study area will also be investigated through the Social Impact Assessment.

The SIA is dependent on the public participation process that has been proposed to be followed during the EIA Phase, and particularly the in-depth consultation sessions. This will therefore form the key “data-gathering vehicle” for the SIA.

Potential issues identified at this stage which will require investigation as part of the SIA include:

- the disruption caused by construction;
- security risk during construction;
- noise during construction;
- traffic and access roads;
- displacement of persons;
- impacts on employment;
- health and safety (including HIV and Aids) (certain of these aspects will be covered as part of the Occupational Health and Safety Act, which is observed by Eskom);
- impacts on land use;
- loss of income due to loss of land and possible migration of farm labourers to construction sites;
- employment creation; and
- infrastructural development

As the analysis in the scoping phase shows, many of the negative impacts are anticipated to respond favourably to mitigation measures, whereas others can be optimised (e.g. maximisation of employment opportunities for members of

local communities). A number of potentially significant social impacts, positive and negative, have been identified as a result of the proposed project. These potential impacts as evaluated above will be part of more detailed studies conducted as part of the EIA phase in order to assess the significance and propose appropriate mitigation measures.

9.4. Public Participation Process

The primary aims for the public participation process include the following:

- meaningful and timeous participation of I&APs;
- promoting transparency and an understanding of the proposed project and its potential environmental (social and biophysical) impacts;
- accountability for information used for decision-making;
- serving as a structure for liaison and communication with I&APs;
- assisting in identifying potential environmental (socio-economic and biophysical) impacts associated with the proposed development;
- inclusivity (the needs, interests and values of I&APs must be considered in the decision-making process); and
- encouragement of co-regulation, shared responsibility and a sense of ownership.

9.4.1. Advertising

In terms of the EIA Regulations, the commencement of the EIA phase of the project was advertised within local newspapers in the predominant languages of the area. The primary aim of these advertisements was to ensure that the widest group of I&APs possible are informed of the project. Other advertisements to be placed during the course of the EIA phase of the project will relate to the availability of reports for public review, as well as the advertisement of dates of public meetings.

9.4.2. Identification of and Consultation with Key Stakeholders

I&APs and Key Stakeholders have been identified during the Environmental Screening Investigation as well as during the ESS phase of the project. The identification of I&APs and Key Stakeholder will continue through into the EIA phase of the project as the public participation process is a continuous process that runs throughout the duration of an environmental investigation.

9.4.3. I&AP Database

All I&AP information (including contact details), together with dates and details of consultations and a record of all issues raised is recorded within a comprehensive

database of I&APs. This database will be updated on an on-going basis throughout the project, and will act as a record of the communication/involvement process.

9.4.4. Consultation and Public Involvement

Consultation with I&APs is considered to be critical to the success of any EIA process. Therefore, one-on-one consultation, focus group meetings and public meetings with I&APs will be undertaken. The aim of this process will be to provide I&APs with details regarding the process and to obtain further comments regarding the proposed project. The information and comments gathered during these consultation sessions will also inform the SIA.

Minutes of all meetings held will be compiled and forwarded to all attendees. These minutes will also be included in the EIA Report. This consultation process will be on-going throughout the process.

Consultation with I&APs will take place at two levels: public meetings for general I&APs who require an overview of the project; and focus group meetings for those who require more in-depth information and intensive interaction.

- Public Meetings

The purpose of Public Meetings is to provide an appropriate format to enable I&APs to raise concerns related to the proposed project. The intention is that I&APs are afforded the opportunity of interacting on a one-on-one basis with technical and planning representatives of Eskom as well as the environmental team. I&APs will be encouraged to complete an attendance register and a comment and registration form to assist I&APs in raising concerns and general views on the project.

- Focus Group Meetings

The purpose of the Focus Group Meetings (FGMs) is to allow key stakeholders with specific issues to air their views and to facilitate the interaction of the key stakeholders and the project team. The meetings will allow for smaller groups of I&APs and/or representatives of larger interest groups or organisations who wish to play an active role in the process an opportunity for consultation.

- Key Stakeholder Workshop

Key stakeholders will be invited by letter to attend a Key Stakeholder Workshop (KSW). The purpose is to workshop the proposed project with identified key role-players who operate at a strategic level. It is acknowledged that there are several key stakeholders and interest groups who are expected to take a keen interest in the proposed project, and it is

considered to be an appropriate approach to engage these stakeholders in order to avoid potential challenges against the process at a later stage.

The primary aim of the KSW will be to:

- disseminate/transfer information on the proposed project to stakeholders (including the findings of the environmental studies);
- answer questions regarding the project and the EIA process;
- address issues and concerns raised by the key stakeholders;
- achieve a common understanding and consensus on the issues relating to the proposed project; and
- receive input regarding the public participation process and the proposed project.

Formal minutes of the key stakeholder workshop will be compiled and distributed to the attendees. These proceedings will also be included in the final EIA Report.

9.4.5. Social Issues Trail

All issues, comments and concerns raised during the public participation process of the EIA process will be compiled into a Social Issues Trail. These issues raised will form the basis of the SIA. This Social Issues Trail will be incorporated as part of the EIA Report.

9.5. Compilation of the Environmental Impact Assessment Report

The EIA Report will be compiled to address the following:

- a detailed description of the proposed project and recommended development site;
- detailed assessment of impacts identified which are determined to be potentially significant; and
- recommendations regarding the mitigation of significant impacts; and
- to meet the requirements and to comply with the necessary legislation and Acts

The combination of the specialist studies into a consolidated report will allow for easy assessment of the potential environmental aspects. In order to evaluate the significance of the identified impacts, the following characteristics of each potential impact will be identified (Table 9.1):

Table 9.1: Criteria for the classification of environmental impacts¹

¹ Criteria for the classification of impacts are as per the EIA Regulations Guideline Document, published by the National Department of Environmental Affairs and Tourism in April 1998.

CATEGORY	DESCRIPTION OF DEFINITION
Nature	A brief written statement of the environmental aspect being impacted upon by a particular action or activity.
Extent (Scale) <ul style="list-style-type: none"> • Site • Local • Regional • National • International 	The area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment phase of a project in terms of further defining the determined significance or intensity of an impact. For example, high at a <i>local</i> scale, but low at a <i>regional</i> scale. <ul style="list-style-type: none"> • The immediate vicinity of the project (radius ± 100 m). • Within a radius of 2 km of the project. • Provincial (and parts of neighbouring provinces). • The whole of South Africa. • Beyond the borders of South Africa.
Status <ul style="list-style-type: none"> • Positive (+) • Negative (-) • Neutral 	Denotes the perceived effect of the impact on the affected area. <ul style="list-style-type: none"> • Beneficial impact. • Deleterious or adverse impact. • Impact is neither beneficial nor adverse. <p>It is important to note that the status of an impact is assigned based on the <i>status quo</i> – i.e. should the project not proceed. Therefore not all negative impacts are equally significant.</p>
Duration <ul style="list-style-type: none"> • Short-term • Medium-term • Long-term • Permanent 	Indicates what the lifetime of the impact will be. <ul style="list-style-type: none"> • 0-5 years • 5-15 years • Impact will cease after the operational life of the activity • Permanent
Probability <ul style="list-style-type: none"> • Improbable • Probable • Highly probable • Definite 	Describes the likelihood of an impact actually occurring. <ul style="list-style-type: none"> • Possibility of the impact materialising is very low • Distinct possibility that the impact will occur • Most likely that the impact will occur • Impact will occur regardless of any preventative

CATEGORY	DESCRIPTION OF DEFINITION
	measures (i.e. mitigation)
<p>Intensity</p> <ul style="list-style-type: none"> • Low • Medium • High 	<p>Describes whether an impact is destructive or benign.</p> <ul style="list-style-type: none"> • Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected • Effected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way • Natural, cultural and social functions and processes are altered to extent that they temporarily or permanently cease
<p>Significance</p> <ul style="list-style-type: none"> • Low • Medium • High 	<p>The significance of an impact is determined through a synthesis of <u>all</u> of the above aspects.</p> <ul style="list-style-type: none"> • No influence on decision-making • Will have an influence on decision-making unless mitigated • Will have an influence on decision-making regardless of mitigation

The suitability and feasibility of all proposed mitigation measures will be included in the assessment of significant impacts. This will be achieved through the comparison of the significance of the impact before and after the proposed mitigation measure is implemented.

9.6. Review of the Environmental Impact Assessment Report

9.6.1. Public Review of the draft Environmental Impact Assessment Report

The draft EIA report will be made available at public places for public review and comment. A 45-day period will be allowed for this review process. The draft EIA Report will simultaneously be made available to authorities for comment.

An advert indicating the availability of this report for public scrutiny will be placed in the predominant languages of the area within local newspapers. I&APs registered on the project database will be notified of the availability of this report by letter.

9.6.2. Authority Review of the Environmental Impact Assessment Report

After the public review period, all relevant comments received from the public will be considered and included into a final EIA report. This final document will be submitted to the authorities for final review and decision-making. Changes between the draft and final reports will be tracked so as to facilitate the review.

9.7. Authorization

On receipt of authorization (positive or negative) for the project, I&APs registered on the project database will be informed of this RoD and its associated terms and conditions by letter.

9.8. Environmental Management Plan

A draft Environmental Management Plan (EMP) will be compiled for this project and submitted along with the draft EIA Report to the relevant authorities and simultaneously made available. The EMP will prioritise management principles for the construction, operation and maintenance phases of the proposed project. The EMP will be largely based on the recommendations of the specialist studies. It will contain all the mitigation and management measures to which the project proponent must adhere during the life cycle of the project. The EMP will be finalised upon receipt of authorization, so as to ensure that any specific conditions of approval are addressed in the EMP.

The envisaged key milestones of the programme for the Environmental Impact Assessment (EIA) phase of the project are outlined in the table below. **It is imperative that all parties involved in the project adhere to the project timeframes to avoid any delays to this strategically important project.**

Table 9.2: Key milestones of the programme for the EIA phase of the project

KEY MILESTONE ACTIVITY	PROPOSED COMPLETION DATE
Finalisation of Environmental Scoping Report	January 2007
N DEAT acceptance of the Environmental Scoping Report and Plan of Study to undertake the Environmental Impact Assessment	February 2007
Undertake further public participation – public meetings, focus group meetings, key stakeholder workshop	March – May 2007
Undertake detailed specialist studies	<u>January - March 2007</u>
Compile draft EIA Report and draft EMP	<u>February - March 2007</u>
Making draft EIA Report and draft EMP available to the public, stakeholders and authorities	<u>April 2007</u>

Public review period (45 days)	<u>April – May 2007</u>
Submit final EIA Report and EMP to authorities	<u>End May 2007</u>
Authority review period	<u>May - July 2007</u>
Issuing of authorization (positive or negative)	<u>July 2007</u>
Notify I&APs of authorization	<u>July 2007</u>

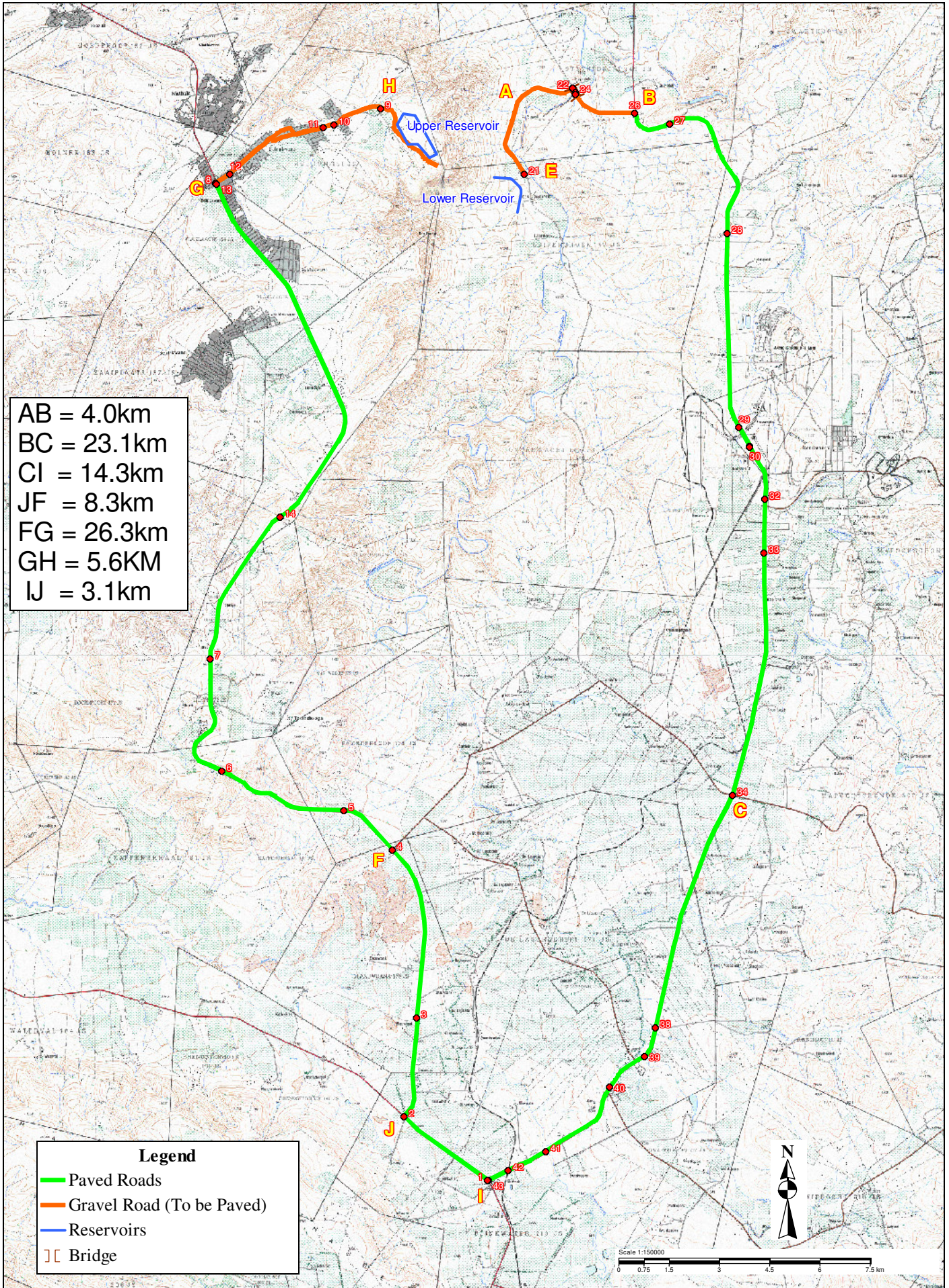
9.9. Environmental Study Team

Details of the environmental study team and their fields of specialisation are provided in 9.3 below.

Table 9.3: Proposed specialist team and their areas of expertise

Name and Organisation	Specialist study to be undertaken
Kelly Martin of Bohlweki Environmental	Project Manager for the EIA process and public participation process; review of EIA process documentation.
Greg Seymour of Bohlweki Environmental	Provide input into the biophysical aspects of the environmental studies; review of EIA process documentation.
Sibongile Hlomuka of Bohlweki Environmental	Co-ordination of public participation process.
<u>Prashika Reddy</u> of Bohlweki Environmental	Compilation of all project documentation; assistance in public participation.
Riaan Robbeson and Dewald Kamfer of Bathusi Environmental Consulting (BEC)	Ecological assessment (flora & fauna)
Lourens du Plessis of MetroGIS	Visual Impact assessment and GIS mapping
Mark Stewart and Andries Pretorius of GCS	Assessment of surface and groundwater impacts
Adrian Brislin and Leon Mbongwa of Goba Consulting Engineers & Project Management	Traffic impact assessment
Garry Paterson of the Agricultural Research Council (ARC)	Assessment of soils and agricultural potential
Johnny van Schalkwyk of the National Cultural History Museum	Heritage Impact Assessment
Derek Cosijn of Jongens Keet and Associates	Noise Impact Assessment
Anita Bron of MasterQ Research	Social Impact Assessment (SIA)
David Blair & Paul da Cruz of SiVEST Selatile	Assessment of impacts on tourism

Name and Organisation	Specialist study to be undertaken
Moloi	potential and wetlands



AB = 4.0km
 BC = 23.1km
 CI = 14.3km
 JF = 8.3km
 FG = 26.3km
 GH = 5.6KM
 IJ = 3.1km

Legend

- Paved Roads
- Gravel Road (To be Paved)
- Reservoirs
- [] Bridge

