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4 BASIC ASSESSMENT PROCESS

4.1 Approach to the BA Process

A Basic Assessment (BA) process is an effective environmental planning tool. It identifies the environmental impacts of a proposed project and assists in ensuring that a project will be environmentally acceptable and integrated into the surrounding environment in a sustainable way.

The BA process for this project complies with the requirements of the National Environmental Management Act, 1998 (Act 107 of 1998) [NEMA] and the NEMA EIA Regulations, 2014 (as amended). The guiding principles of a BA process are listed below.

4.2 Guiding Principles for a BA Process

The BA process must take an open participatory approach throughout. This means that there should be no hidden agendas, no restrictions on the information collected during the process and an open-door policy by the proponent. Technical information must be communicated to stakeholders in a way that is understood by them and that enables them to meaningfully comment on the project.

There should be ongoing consultation with Interested and Affected Parties (I&APs) representing all walks of life. Sufficient time for comment must be allowed. The opportunity for comment should be announced on an on-going basis. There should finally be opportunities for input by specialists and members of the public. Their contributions and issues should be considered when technical specialist studies are conducted and when decisions are made.

The eight guiding principles that govern the entire BA process are as follows:

- **Participation:** An appropriate and timely access to the process for all interested parties;
- **Transparency:** All assessment decisions and their basis should be open and accessible;
- **Certainty:** The process and timing of the assessment should be agreed in advance and followed by all participants;
- **Accountability:** The decision-makers are responsible to all parties for their action and decisions under the assessment process;
- **Credibility:** Assessment is undertaken with professionalism and objectivity;
- **Cost-effectiveness:** The assessment process and its outcomes will ensure environmental protection at the least cost to the society;
- **Flexibility:** The assessment process should be able to adapt to deal efficiently with any proposal and decision making situation; and
- **Practicality:** The information and outputs provided by the assessment process are readily usable in decision making and planning.

A BA process is further considered as a project management tool for collecting and analysing information on the environmental effects of a project. As such, it is used to ensure the following:

- Identify potential environmental impacts;
- Examine the significance of environmental implications;
- Assess whether impacts can be mitigated;
- Recommend preventive and corrective mitigating measures;
- Inform decision-makers and concerned parties about the environmental implications; and
- Advise whether development should go ahead.

The Public Participation Process forms an integral part of the Basic Assessment process and is discussed in greater detail in Section 4.4 of this BAR (below).

4.3 BA Technical Process

This section provides a summary of the technical process that has been followed to date for this BA process.

4.3.1 Application for Authorisation

The Application for Environmental Authorisation was submitted to the DEA on **25 October 2019**. Refer to **Appendix A** for the Application Form.

4.3.2 Information Gathering

Early in the BA process, the EAP, key state departments and the eThekweni Municipality, Town Planners together with the Engineering Team comprising of Stormwater Engineers, Civil and Electrical Engineers, Traffic Engineers and technical specialists, identified the information that would be required for the impact assessment and the relevant data was subsequently obtained. In addition, the specialists sourced available information about the receiving environment from reliable sources, I&APs and previously documented studies in the area.

4.3.3 Consultation with State Departments

A meeting was held with the following key state departments on 13 May 2019 to present the proposed development of the KZN ASP development (refer to the minutes of the meeting in Appendix A):

- Ezemvelo KwaZulu-Natal Wildlife (EKZNW);
- KZN Department of Agriculture, Forestry and Fisheries (DAFF);
- KZN EDTEA (Coastal Management Unit); and
- eThekweni Municipality's Environmental Planning and Climate Protection Department (EPCPD).

The purpose of the authority meeting was as follows:

- To present the project in terms of how the mitigation hierarchy has been followed;
- To present proposals of rehabilitation and offsets;
- To obtain comments and advice from the authorities; and
- To obtain a clear way forward in terms of environmental requirements for the application process.

The paragraphs below provide a summary of the key points of discussion at the authority meeting.

At this meeting, the site boundary of the proposed KZN ASP development was clarified with the visual aid of a presentation and the progression of the site layout plans for various road access options off the N2 interchange, i.e. Option 1 and Option 3, were discussed. The stakeholders were informed that there are various road access configurations for Option 1 access. An Option 1b, which comprised a full, wide diamond interchange off the N2 was deemed unfeasible for the development, as part of it would be constructed within the 'conservation servitude', which is an offset for the existing Larnaco Residential Development located adjacent to this access option. Therefore, Option 1b was not assessed further in this Basic Assessment Report. Refer to Figure 4-1 for the configuration for access Option 1b.

Variations of the Option 1 access alternatives, i.e. Option 1, 1c and 1d were explored by the project team. Refer to Section 2.1.3 that provides a description of these access options. In light of the impacts on the receiving environment associated with the construction of access Option 1 and its variations i.e. Option 1c and 1d and access Option 3b, various specialist studies were undertaken to determine the impacts on the receiving biophysical and social environment. These included socio-economic, visual, noise, air quality, wetlands and ecological assessments. Refer to Section 2.10.5, Table 2-24 for a comparative assessment of the advantages and disadvantages of each access option.

The sensitivity of the uMsimbazi Estuary, which is located south of the proposed KZN ASP site boundary was highlighted at this meeting. The uMsimbazi Estuary has a PES of B+ i.e. an estuary in natural condition. The stakeholders were informed that discharge of treated effluent into the nearby watercourses by means of sanitation solutions such as on-site sewerage package treatment plants, were not feasible, as this could lead to artificial breaching of the uMsimbazi Estuary, as well as impacts to water quality and nutrification. The sanitation engineers, therefore, investigated the construction of a sewer rising main along the road reserve of the existing P197 to the existing Kingsburgh WWTW for the conveyance of sewerage generated by the tenants. This is the preferred sanitation solution for the proposed development.

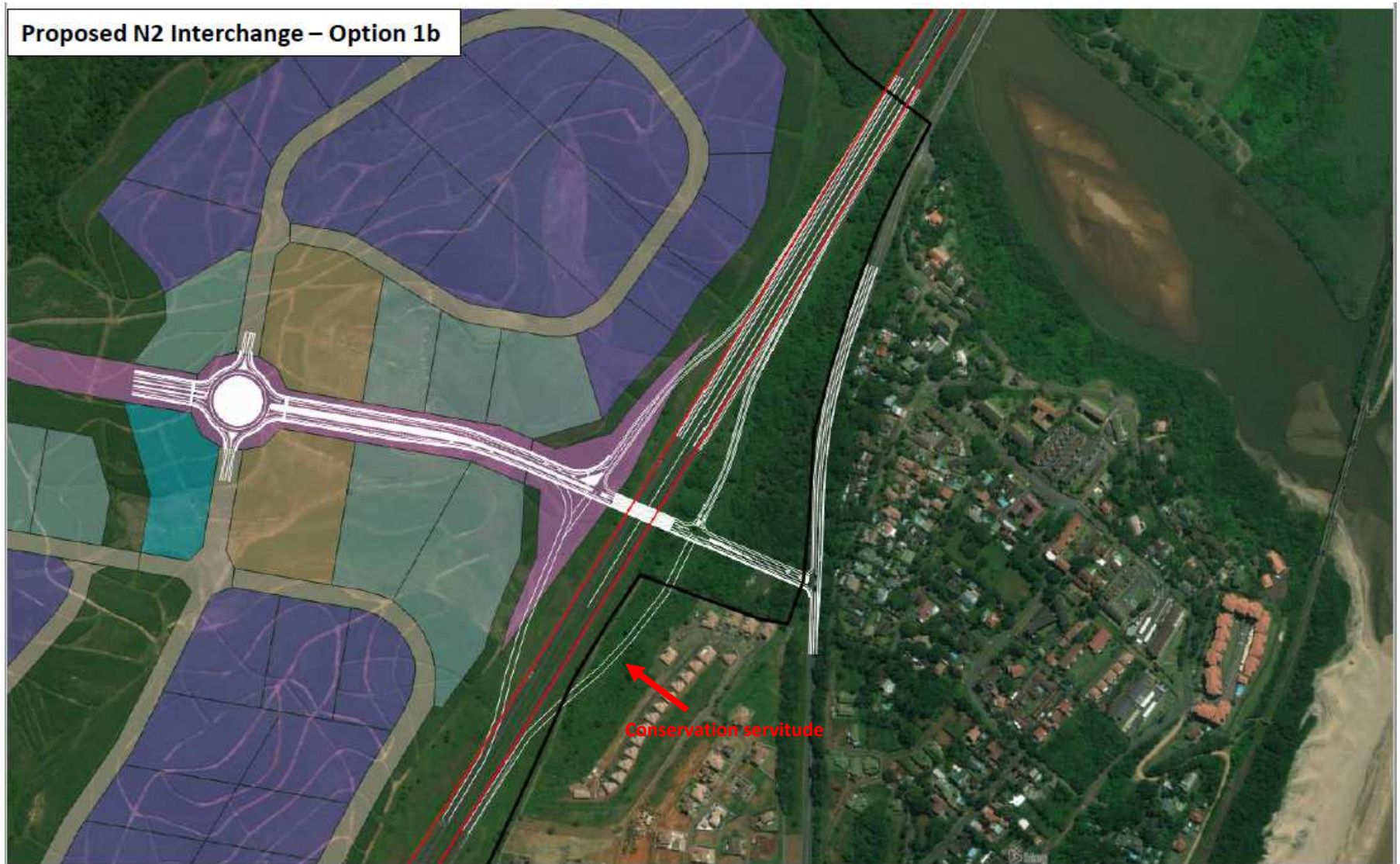


Figure 4-1: Locality Map of Option 1b access configuration

The Kingsburgh WWTW accepts domestic waste only and pre-treatment of industrial effluent would need to be undertaken on-site by the potential tenants to conform to domestic effluent characteristics before discharge into the local sewer network. As the proposed activities of the tenants are unknown at this stage, the need for on-site sewerage package treatment plants cannot be determined. Should any potential tenant activities require the treatment of industrial effluent on-site, the sludge produced must be removed to an appropriate facility. Should such treatment of industrial effluent be required, prior to establishment on site, the potential tenant must obtain an Environmental Authorisation, as per the applicable environmental application process and a WUL, should their activities fall within the ambit of listed activities of the EIA Regulations of 2014 (as amended) and Section 21 of the National Water Act, 1998 (Act No. 107 of 1998) respectively. As indicated above, no treated effluent will be allowed to be discharged into the nearby watercourses, following the treatment process, and it is recommended that this be made a condition in the EA.

In view of this, eThekweni Water and Sanitation (EWS) are currently investigating options for transferring non-domestic flows from the entire network to the Amanzimtoti WWTW. In this case, potential tenants will still need to pre-treat their effluent on site if they fall outside the industrial effluent characteristics, which can be dealt with by the Amanzimtoti WWTW.

The mitigation hierarchy with regards to impacts on the wetlands, as a result of construction of the KZN ASP, were discussed with the stakeholders. As far as possible, the avoidance and minimisation of impacts on the wetland were considered in the generation of the Site Development Plan.

The proposed development will further involve the establishment of a series of platforms with a total footprint of approximately 206ha. The wetland assessment undertaken by GIBB (Pty) Ltd (GIBB, 2019) confirmed that 22.6ha of wetland area will be infilled directly for the establishment of the proposed development platforms. The remaining undeveloped area that will constitute the on-site rehabilitation study area will be 70.44ha in extent. Refer to the on-site Wetland and Riparian Rehabilitation Plan in Appendix D. The wetland offset receiving areas are located within the iLovu and uMsimbazi Estuaries.

The representatives from EPCPD, KZN EDTEA (Coastal Management Unit) and EKZNW provided suggestions and guidance with regards to the approach to the Wetland Offset Plan. The authorities requested that the calculations of the split of catchment gains for the on-site losses and gains between the iLovu and uMsimbazi Catchments be provided. Refer to Section 4 (Table 13) of the Wetland Offset Plan in Appendix D for the assessment of expected offset contributions from Sites A (iLovu Catchment) and Site B (uMsimbazi Catchment).

The authorities also requested that the phasing of the commencement of wetland rehabilitation at the wetland offset receiving area be very clear. As indicated in Section 5.2 of Appendix D, the rehabilitation phase includes the planning and implementation of rehabilitation activities within the offset receiving areas for the first ten (10) years, or until such time as offset targets have been achieved. It is envisaged that all major rehabilitation work will be completed within two (2) years of the commencement of construction.

The authorities requested that rehabilitation efforts must ensure maximum gains for offsetting areas by implementing practical mitigation measures. The authorities were requested to provide recommendations for rehabilitation and were therefore invited to a site visit, which took place on 27 May 2019.

4.3.4 Site visit with State Departments

A site visit to the KZN ASP site, the wetland offset receiving areas, and the N2 interchange access options was undertaken by the Terrestrial Ecologist, Estuarine Specialist and Wetland Specialist, EKZMW, EPCPD and DAFF on 27 May 2019, i.e. subsequent to the authority meeting of 13 May 2019. Refer to the minutes of the site meeting in Appendix A.

The authorities agreed that opportunities identified within the uMsimbazi Estuary could increase the size of the offset receiving area for the uMsimbazi Catchment (including removing berms and drains and dense woody alien plants).

The general consensus among the authorities is that the approach to the uMsimbazi and iLovu wetland offset areas are acceptable. They were satisfied with the intention to include the broader floodplain of the uMsimbazi EFZ in the offset, which increases the physical extent from 5ha to approximately 20ha-25ha. This should assist with balancing losses and gains within this catchment.

The inclusion of the broader floodplain on the southern side of the iLovu River channel under sugarcane was additionally requested. General reshaping of drains and raised areas and the removal of the disused oxidation pond is the preferred approach for rehabilitation within the iLovu catchment.

The state departments were also taken to the various N2 access options 1, 1c, 1d and 3b. It was noted at the site meeting that in-principle approval of the interchange options off the N2 from SANRAL was pending. Should Option 1d be implemented, SANRAL would need to provide clearance for the R102 link road over the N2 to the proposed central boulevard. As the R102 link road would involve construction within a forest area, the access options 1c and 1d are not preferred from an ecological perspective. The main abutment next to the N2, for Option 1, 1c and 1d would also impact on a wetland. Option 3b does not impact on the forest area and is preferred from an ecological perspective and by the key state departments. The Estuarine Specialist indicated that engineering solutions to deal with stability concerns and the highly erodible sandy soils at the Option 3b site will need to be carefully considered should this option be pursued. Therefore, erosion and sedimentation risks to the downstream uMsimbazi estuary will be important to mitigate at this site. Further recommendations regarding the access options off the N2 are provided in the terrestrial ecology report.

4.3.5 Consultation with eThekweni Electricity

As indicated in Section 2.10.4, electricity for the proposed KZN ASP project will be provided by eThekweni Electricity via a 132kV transmission powerline from the existing Kingsburgh

substation to the proposed 132kV substation at the KZN ASP site. A meeting was held with eThekweni Electricity on 19 May 2019 to discuss the criteria to be met in selecting the most feasible powerline route alignment for the project. Refer to the minutes of the meeting in Appendix A.

Following the meeting, GIBB undertook a site visit with Mr Vasu Chetty of eThekweni Electricity on 1 August 2019 to select the most feasible route alignment. This resulted in the selection of Option 1 as the preferred route alignment, based on the following:

- There are no pylons located within the 1:100 year flood lines, the wetlands and the wetland offset receiving areas of the KZN ASP project;
- The proposed powerline will not cross existing 132kV powerlines;
- The pylons are located close to existing farm roads, thereby making it accessible for construction and maintenance;
- The properties to be traversed by the proposed powerline route belongs to DTPC;
- The proposed powerline route will have the least number of bends in comparison to Option 2, 3a and 3b powerline route alignments;
- The proposed powerline occurs 35m from the existing P197;
- The proposed powerline does not traverse fixed structures;
- It is the shortest route and therefore most cost-effective in construction of the powerline in comparison to the other route alignments;
- It is preferred from an ecological perspective as it does not traverse ecologically-sensitive vegetation, such as coastal scrub/thicket. Where the line crosses the iLovu River, collisions of birds with the powerline can be mitigated by the installation of bird flight diverters on the lines;
- The proposed powerline may be constructed based on the recommendations provided in the Geotechnical Report;
- There are low risks on the aquatic environment during both the construction and operational phases; and
- There are no heritage resources that will be impacted by construction of the proposed powerline.

4.3.6 Consultation with the Department of Water and Sanitation

The following water use activities in terms of the National Water Act, 1998 (Act No. 36 of 1998) are triggered by the proposed development:

- Section 21(c) Impeding or diverting the flow of water in a watercourse); and
- Section 21(i) Altering the beds, banks and characteristics of a watercourse).

A Pre-Application Meeting was held with DWS on 11 October 2018. The purpose of the meeting was to present the background of the project, determine the water use activities and specialist studies that are required, and obtain further requirements/comments from DWS. Please refer to the minutes of the meeting in Appendix A.

At the time of the Pre-Application Meeting in October 2018, the applicant's proposal was to construct four on-site sewerage package treatment plants, one on each of the platforms proposed on site. This option was not deemed feasible due to potential impacts on the uMsimbazi Estuary. As potential tenant activities on site are unknown at this stage, it is proposed that the sewerage generated on the site be conveyed via a sewerage pump station along the southern boundary of the site to a sewer rising main along the road reserve of the P197 and municipal roads until it reaches the existing Kingsburgh WWTW. Therefore, on-site sewerage package treatment plants do not form part of the WULA for this project. The potential tenants must, therefore, undertake Environmental Application Processes and WULAs, should they require on-site treatment of sewerage.

4.3.7 Specialist Studies

The following specialist studies have been undertaken for the BA process:

- Wetland Impact Assessment;
- Wetland Offset Strategy;
- On-site Wetland Rehabilitation plan;
- Terrestrial Ecological Assessment;
- Agricultural Potential Assessment;
- Phase 1 Archaeological and Heritage Impact Assessment;
- Estuarine Impact Assessment;
- Hydrological Assessment (Flood line Assessment)
- Aquatic Impact Assessment;
- Geohydrological Assessment;
- Geotechnical Assessment;
- Environmental Noise Impact Assessment;
- Socio-Economic Impact Assessment;
- Air Quality Impact Assessment;
- Visual Impact Assessment;
- Stormwater Management Plan; and
- Traffic Impact Assessment and Transport Master Plan.

4.4 Public Participation Process

The principles of NEMA govern many aspects of the BA process, including consultation with I&APs. These principles include the provision of sufficient and transparent information to I&APs on an ongoing basis, to allow them to comment; and ensuring the participation of historically disadvantaged individuals, including women, the disabled and the youth.

The principal objective of public participation, in compliance with Chapter 6, Regulation 39 - 44 in GN R 326 of 7 April 2017, is thus to inform and enrich decision-making.

4.4.1 Identification of Interested and Affected Parties

I&APs representing the following sectors of society have been identified (see Appendix G for a complete preliminary I&AP distribution list):

- Provincial Authorities;
- Local Authorities;
- Ward Councillors; and
- Adjacent Landowners.

4.4.2 Public Announcement of the Project via a Background Information Document (BID)

A Background Information Document (BID) was made available to stakeholders on the preliminary I&APs database on 11 December 2018. Refer to the BID in Appendix G. The purpose of this BID was to provide I&APs with background information about the proposed project. It also aimed to inform I&APs on how to further participate in the BA process. The BID invited I&APs to register their interest in the project and provide input with regards to possible biophysical or socio-economic impacts. Several comments were received from I&APs during the BID notification period. Refer to the Comments and Responses Report in Appendix G, as well as to the comments as they were received and the subsequent responses given in Appendix G.

4.4.3 Public Announcement of the Basic Assessment Report for public review and comment

The Draft Basic Assessment Report (BAR) was available for public review and comment from 25 October to 25 November 2019. I&APs have been informed of the availability of the Draft BAR for public comment and have been requested to register and send their comments to GIBB in the following manner (see Appendix G for public announcement documentation):

- Publication of media advertisement in the South Coast Sun, Mercury and Isolezwe newspapers;
- On-site notices detailing the proposed development, the BA process and invitation to register and comment, were placed on and around the site; and
- Distribution of letters by email to I&APs identified in **Section 4.4.1** above.

4.4.4 Database of Registered and Affected Parties

An I&AP database was compiled for the project and will be updated as the public participation process progresses. The IA&Ps that registered during the BID notification period were included in this database. All I&APs who register / comment during public review of the Draft BAR will be included within this database (refer to Appendix G).

4.4.5 Basic Assessment Report (BAR) for Public Review

A period of 30 calendar days 25 October to 25 November 2019 was allowed to State Departments, and the general public for the review and commenting phase of the Draft BAR. The availability of the Draft BAR was announced by means of public notice (refer to Section 4.4.2 above) and personal letters to all identified stakeholders on the distribution list. Comments that were received during public review of the Draft BAR, will be captured in a Comments & Response Report and attached to the Final BAR in Appendix G.