






## BACKGROUND INFORMATION DOCUMENT

The proposed Zwelibomvu 2 Reservoir Inlet from the Shongweni Reservoir to the Zwelibomvu Reservoir within the eThekweni Municipality.

13 August 2019

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### Document history and change record

Revision	Issue date	Description of change / Approval
00	13/08/2019	Initial Issue
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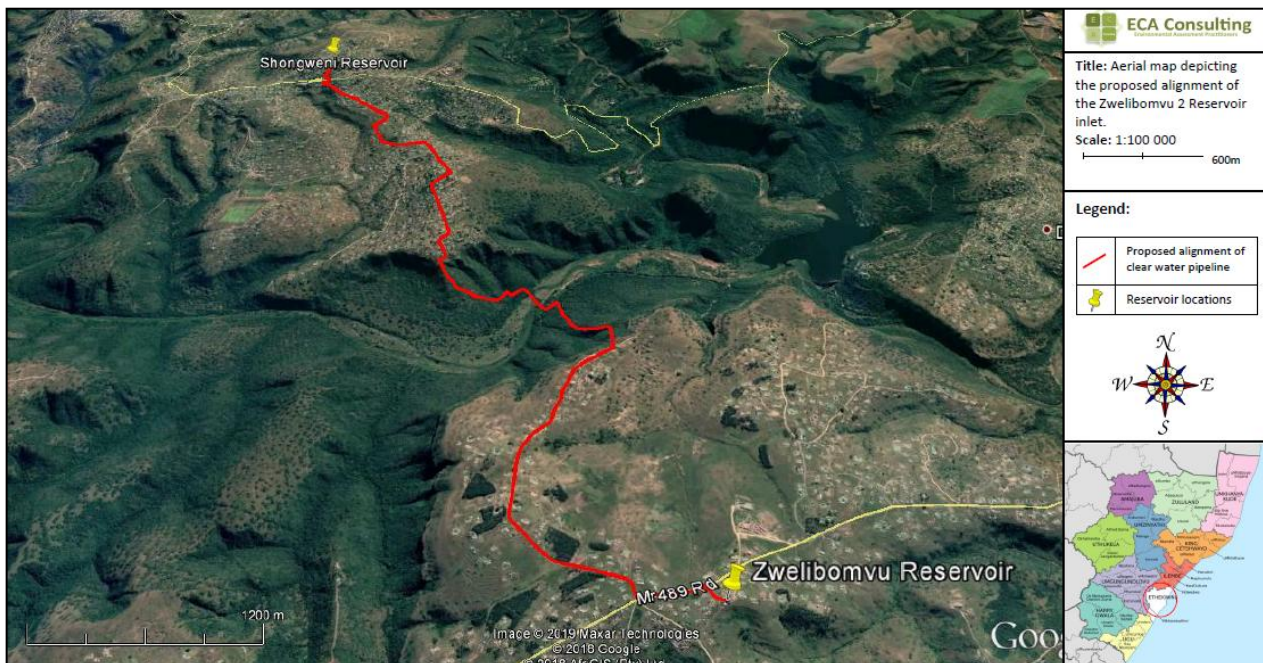


### Purpose of this Document

- The Background Information Document (BID) is meant to provide an introduction to the proposal and the Basic Assessment process.
- The BID invites you to register as an Interested and Affected Party (I&AP) and outlines how you as an I&AP can be involved in the process.
- Details of the proposal and potential impacts will be investigated and discussed in the Basic Assessment Report.

### Proposal

The applicant, eThekweni Municipality Water and Sanitation Unit, proposes the installation of a 500mm diameter steel water pipeline of approximately 10km to the Zwelibomvu 2 Reservoir. The pipeline will connect the Shongweni Reservoir to the Zwelibomvu 2 Reservoir. The intention is to replace the existing 300mm diameter Glass fibre Reinforced Polyester (GRP) inlet pipeline to Zwelibomvu. The new pipeline will be installed within 2m of the existing line and will follow the same route as the existing pipeline. The pipeline will be located in the areas of Ntshongweni and Zwelibomvu. The start coordinates of the pipeline are 29°50'7.5"S; 30°40'30.6"E and the end coordinates of the pipeline are 29°53'15.5"S; 30°42'31.3"E. The site is located in a rural area in the outer west of Durban.



**Figure 1: Aerial Map Depicting the Proposed Alignment of the Zwelibomvu 2 Reservoir inlet (Source: Google Earth, 2019).**

The proposed activity will require an Environmental Authorisation in terms of the EIA Regulations, 2014 (as amended in 2017). The proposal will be undergoing a Basic Assessment Process in terms of Listing Notice 1 (GNR 327) and Listing Notice 3 (GNR 324) of the EIA Regulations, 2014 (as amended in 2017).

Due to the presence of multiple tributaries and the potential of wetlands within 500m of the proposed pipeline, in a separate application process, water use authorisation is also being applied for in terms of Section 21 (c) and (i) of the National Water Act (Act 36 of 1998).



**Brief Site Description**

The proposed development site is located within the areas of Ntshongweni and Zwelibomvu within the outer west of Durban, eThekweni Municipality. The site is located within rural Durban. The pipeline will be approximately 10km in length and is located within both Ward 7 (Shongweni) and Ward 100 (Zwelibomvu). The pipeline will connect the Shongweni Reservoir (Photo 1A) to the Zwelibomvu 2 Reservoir (Photo 1B). The new pipeline will be installed within 2m of the existing line and will follow the same route as the existing pipeline.

The pipeline route is located mainly within the existing road reserve (Photo 1C) and will traverse minor tributaries and the Umlazi River (Photo 1D). There are existing power lines located along the road servitudes (within Zwelibomvu and Shongweni) (Photo 1C). The topographical setting of the area is dominated by the valley associated with the Umlazi River. The proposed pipeline route is also situated on the flatter plateaus to the north and south of the Umlazi River. The vegetation alongside the pipeline route was noted to be grassed along the road reserve with denser vegetation along the valley leading to the Umlazi River. The site is located within a rural landscape with low to high density development. Within Shongweni, located north, there are high density housing settlements located alongside the pipeline servitude (Photo 1E). Zwelibomvu located further south is characterised by low to medium density scattered settlements and larger patches of natural vegetation (Photo 1F).



Photo 1A: The Shongweni Reservoir (Photographer facing North West)



Photo 1B: The Zwelibomvu 2 Reservoir (Google Earth, 2019).



Photo 1F: Medium density scattered settlements with patches of natural vegetation (Google Earth, 2019).

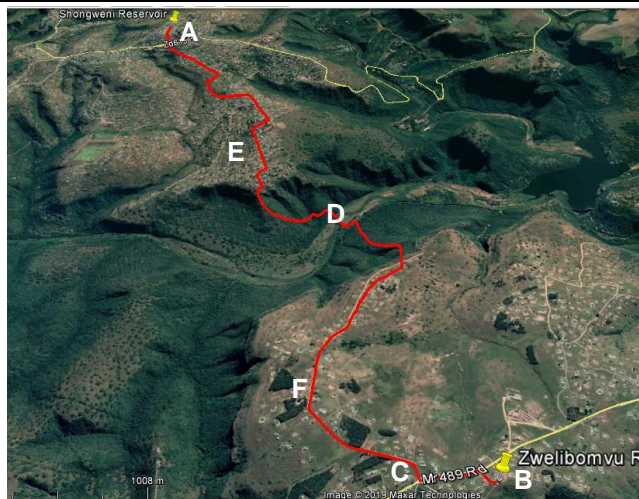


Photo 1: Overview of the proposed pipeline (Google Earth, 2019)



Photo 1C: Existing pipeline (in red) located within the road reserve, alongside multiple power lines (JLB Consulting, 2019).



Photo 1E: High density settlements with scattered patches vegetation (Google Earth, 2019).



Photo 1D: The proposed pipeline route traversing the Umlazi River and associated tributaries (Google Earth, 2019).

### **Need and Desirability**

The existing pipeline is 300mm in diameter and is both steel and glass reinforced pipe (GRP). The existing pipeline is constantly bursting which results in a disruption of the water supply to surrounding residents and local consumers. Further to the above the water demand in the area has increased due to increasing number of settlements within the area. The upgrading of the pipeline to a 500mm diameter steel water pipeline will result in a more reliable water source as well as address the increasing demand for clear water in the Zwelibomvu area.

### **What is a Basic Assessment process?**

When Environmental Authorisation is required for a proposal, one of two legislated types of environmental assessments may be followed, i.e. a basic assessment (BA) or a Scoping & Environmental Impact Reporting (EIR). The nature and scale of the proposal determines which type of assessment is to be undertaken. A BA process will be required when listed activities of Listing Notice 1 (GNR 327) and/or Listing Notice 3 (GNR 324) is applicable to the development. Generally, but not always, where a proposal is less likely to cause significant environmental impacts, then a BA process is followed.

According to the National Environmental Management Act (NEMA) (Act 107 of 1998), EIA Regulations 2014 (as amended 2017), [GNR 326 & 324], the proposed activity requires Environmental Authorisation via a BA process, as per the following activity:

- Listing Notice 1, Activity 9**      *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 drainage inside a road reserve or railway line reserve; or*  
*(b) where such development will occur within an urban area.*
- Listing Notice 1, Activity 12**      *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.*

- Listing Notice 1, Activity 19** *The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of 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.*
- Listing Notice 3, Activity 12** *The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.*
- d. KwaZulu-Natal**
- i. Trans-frontier protected areas managed under international conventions;*
  - ii. Community Conservation Areas;*
  - iii. Biodiversity Stewardship Programme Biodiversity Agreement areas;*
  - iv. 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;*
  - v. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;*
  - vi. Within the littoral active zone or 100 metres inland from 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;*
  - vii. 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;*
  - viii. A protected area identified in terms of NEMPAA, excluding conservancies;*
  - ix. World Heritage Sites;*
  - x. Sites or areas identified in terms of an international convention;*
  - xi. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose;*
  - xii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; or*
  - xiii. In an estuarine functional zone.*
- Listing Notice 3, Activity 14** *The development of—*
- (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or*
  - (ii) infrastructure or structures with a physical footprint of 10 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 has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;*
- excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.*

**d. KwaZulu-Natal**

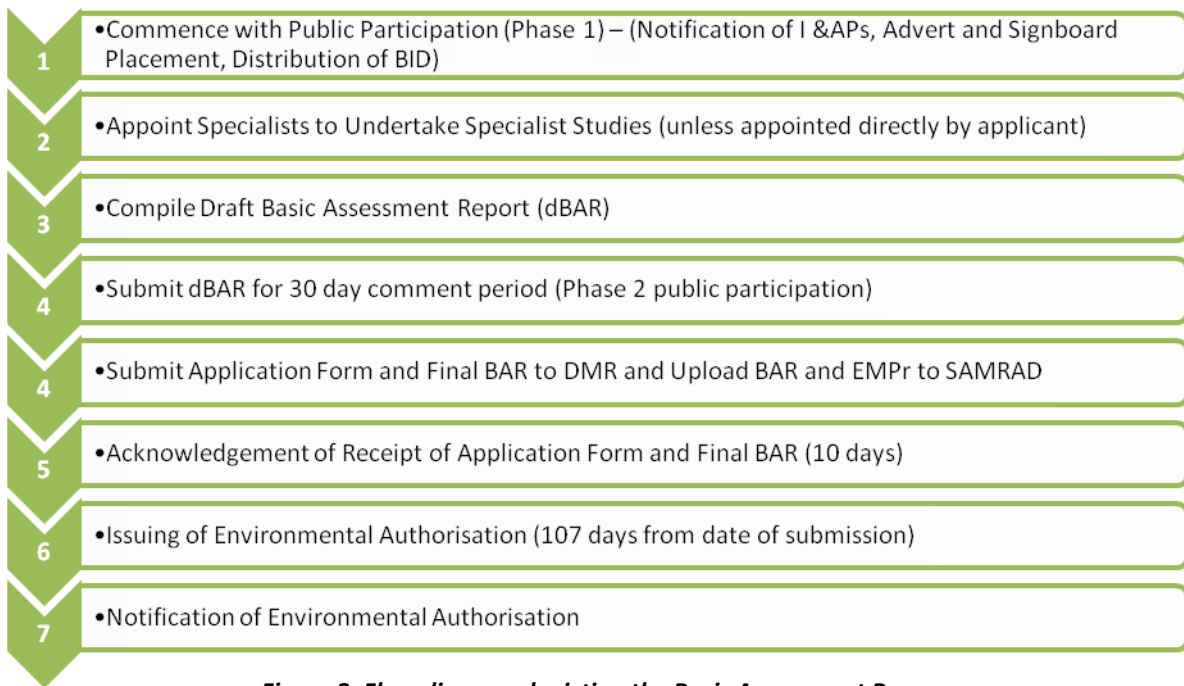
- i. In an estuarine functional zone;*
- ii. Community Conservation Areas;*
- iii. Biodiversity Stewardship Programme Biodiversity Agreement areas;*
- iv. A protected area identified in terms of NEMPAA, excluding conservancies;*
- v. World Heritage Sites;*
- vi. Sites or areas identified in terms of an international convention;*
- vii. Critical biodiversity areas or ecological support areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;*
- viii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;*
- ix. Core areas in biosphere reserves;*
- x. Outside urban areas:*
  - (aa) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any terrestrial protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; or*
  - (bb) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined; or*
- xi. Inside urban areas:*
  - (aa) Areas zoned for use as public open space;*
  - (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose; or*
  - (cc) Areas seawards of the development setback line or within 100 metres from the high-water mark of the sea if no such development setback line is determined.*

For the current proposal, the BA will investigate the proposal against various parameters, such as aquatic impacts, ecosystem functioning, wetland delineation and hydrological functions, etc. to ensure that the proposal follows the idea of sustainable development and that any potential negative environmental impacts are mitigated against. Potential positive and negative impacts of the proposal will be identified and assessed in the BA report.

One of the outcomes of the process is an Environmental Management Programme (EMPr) that manages the pre-operation/pre-construction, construction, operational and rehabilitation phases of the development to practically manage negative environmental impacts.

**Approach: Basic Assessment Process**

The BA process will strictly follow the requirements of GNR 326, NEMA EIA Regulations (2014, as amended 2017). The flow chart below illustrates the process to be followed:



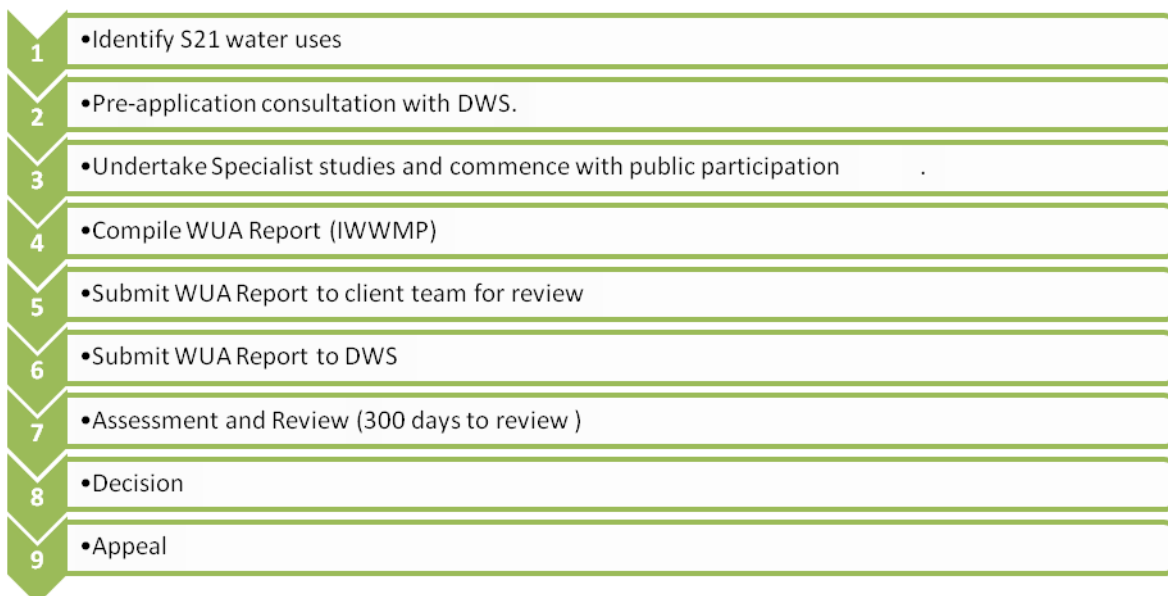
**Figure 2: Flow diagram depicting the Basic Assessment Process**

The competent authority that will either authorise or reject the BA is the Department of Economic Development, Tourism and Environmental Affairs (EDTEA)

**Approach: Water Use Authorisation**

As the activity occurs across a section of the Mavivane River, Water Use Authorisation (WUA) will be required from the Department of Water and Sanitation as per Section 21 of the National Water Act (No 36 of 1998). The Water Use Authorisation (WUA) process will strictly follow the requirements of the National Water Act (36 of 1998).

The figure below summarises the steps to be taken:



**Figure 3: Illustration of the Water Use Authorisation process to be followed**

The National Water Act (36 of 1998) defines water use in terms of Section 21 of the Act as follows:

- (a) Taking water from a water resource;
- (b) Storing water;

- (c) *Impeding or diverting the flow of water in a watercourse;*
- (d) *Engaging in a stream flow reduction activity contemplated in Section 36;*
- (e) *Engaging in a controlled activity identified as such in Section 37(1) or declared under Section 38(1);*
- (f) *Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;*
- (g) *Disposing of waste in a manner which may detrimentally impact on a water resource;*
- (h) *Disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process;*
- (i) *Altering the bed, banks, course or characteristics of a watercourse;*
- (j) *Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and*
- (k) *Using water for recreational purposes.*

In August 2016, the General Authorisation GN 40229 was promulgated. This notice replaces the need for a water user to apply for a licence in terms of the National Water Act (Act 36 of 1998) ("the Act ") provided that the water use is within the limits and conditions of this General Authorisation.

This general authorisation is applicable to Section 21 (c) and (i) water uses only, provided that the activity has a low risk rating (refer to Notice GN 40229 for exclusions, e.g. sewage pipelines). Therefore, it is possible that a General Authorisation can be obtained for low risk section 21 (c) and (i) water uses.

For the proposed project, it is anticipated that only Section 21 (c) and (i) water uses will be triggered due to the pipeline crossing multiple tributaries and potentially occurring within 500m of a wetland.

### **Specialist Studies**

The following specialist studies will be reviewed as part of the BA / WUA process:

1. Wetland / Riparian Delineation and Functional Assessment – The aim is to determine the extent and functionality of the wetland / watercourse on site;
2. Ecological / Vegetation – The aim is to identify indigenous and/or protected vegetation and to assess the impact of the proposal on the ecological biodiversity of the proposed site.
3. Geotechnical – The aim is to determine the stability of the site and to inform engineering specifications for development planning;
4. Heritage Impact Assessment - To identify items / areas of cultural or heritage significance that require protection and / or consideration;
5. Stormwater Management Plan – The aim of the stormwater management plan is to ensure that post development stormwater runoff approximates and does not exceed the pre-developed condition;

All specialist studies will be reviewed and investigated in the BA and WUA Report.

### **Public Participation**

A key part of the BA is public participation, whereby authorities, residents, neighbours and any organisation that may be interested in or affected by the proposed activity, are notified of the proposal so as to provide an opportunity for expression of comments/concerns throughout the BA process. Public participation is a legislated requirement according to the EIA Regulations, 2014 (as amended, 2017). As the independent Environmental Assessment Practitioner (EAP), ECA Consulting is required to involve the public in the following way (as per Chapter 6 of the EIA Regulations, 2014, as amended 2017):

- Provide written notice to adjacent occupiers of the site, the municipal ward councillor, ratepayers association, and any organ of state having jurisdiction in respect of any aspect of the activity;



- Place an advert in one local newspaper, and at least one provincial or national newspaper if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken;
- Fix a notice board (minimum size 60cm x 42cm) at a place conspicuous to the public at the boundary or on the fence of the site or any alternative site mentioned in the application.

Further to the public notification, the public may register as an I&AP to obtain further information and partake in the BA process by way of comment.

Any comment / concern / query received from an I&AP and/or authority will be addressed and considered in the environmental assessment process.

### **What is your role as an I&AP?**

According to Section 43 of the EIA Regulations, 2014 as amended (GNR 326), as a registered I&AP you are entitled to comment in writing on all written submissions, including draft reports made to the competent authority (i.e. EDTEA) and to bring to the attention of the competent authority and EAP any issues which you believe may be of significance to the consideration of the application. These issues must be submitted within the timeframes approved or those as set by the competent authority.

As an I&AP you are legally required to disclose any direct business, financial, personal or other interest which you may have in the approval or refusal of the application (complete attached comment sheet).

You will have the opportunity to comment on the following documents:

1. **Background Information Document (BID)** – Due date for comments: 31 August 2019 (21 days)
2. **Draft Basic Assessment Report** – Due date for comments: 30 days from the date of notification of availability of the report.
3. **Water Use Authorisation Report** – Due date for comments: 60 days from the date of notification of availability of the report.

You may provide written comment at any time during the BA / WUA process; however comments on documents must follow timeframes as set by the competent authority and/or EAP.

### **Public Participation to date involves / involved the following:**

**Notification of Authorities:** The following Authorities / State Departments will be notified of this application via email within the week of 5 August 2019 and will continue to receive notifications and/or reports on this application:

- AMAFA
- Department of Agriculture Forestry and Fisheries (DAFF) – Agricultural Division
- DAFF – Forestry Division
- Department of Water and Sanitation (DWS)
- Ezemvelo KZN Wildlife (Planning)
- KwaZulu-Natal Department of Transport
- eThekweni Municipality
- eThekweni Municipality – Environment
- Ward councillor (Ward 100 and Ward 7)

**Advertisement:** An English and isiZulu advert was placed in the local newspaper, the Ezasegagasini Metro on the 22 March 2019.

**Notification of adjacent landowners / occupiers:** Land owners / occupiers and adjacent land owners / occupiers were notified via A5 flyers (English and IsiZulu) on 3 May 2019, via the relevant Ward Councillors. Additional laminated A4 notices were handed to the relevant ward councillors to place on public notice boards. Three notification signboards (60cm x 42cm) in English and IsiZulu were placed by the EAP around the site on 3 May 2019. The Ward Councillors (Ward 100 and Ward 7) have agreed to assist in the notification of land occupiers and adjacent land owners / occupiers. Proof of signboard placement and notification will be provided in the pre-application Basic Assessment Report.

### **Who is ECA Consulting?**

ECA Consulting is an independent and multi-faceted environmental consultancy that provides professional consulting expertise in accordance with legislative requirements and global environmental trends. ECA Consulting provides experienced handling and management of all aspects of Environmental Impact Assessments (EIAs), Basic Assessments (BAR), and Environmental Management Programmes (EMPr) in accordance with the National Environmental Management Act (107 of 1998) as well as Water Use License Applications (WULA) according to the National Water Act (1998). ECA Consulting also manages waste license applications as per the requirements of the National Environmental Management Waste Act (59 of 2008). With experience in over 50 to 80 EIAs and other environmental management areas, ECA Consulting offers a professional and timeous service in achieving environmental compliance and moving towards sustainable development.

ECA Consulting has been appointed as the independent EAP by eThekweni Municipality to undertake and manage the BA and WUA process for the proposed Zwelibomvu 2 Reservoir Inlet from the Shongweni Reservoir to the Zwelibomvu Reservoir within the eThekweni Municipality. Tarryn Narain is the senior consultant on the project; all comments / queries can be submitted to:

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