DR. YUSAF DADOO HOSPITAL

BACKGROUND INFORMATION DOCUMENT (BID)

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS & WATER USE LICENSE APPLICATION AND MEDICAL WASTE DISPOSAL LICENSE



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BACKGROUND INFORMATION DOCUMENT (BID)

BASIC ASSESSMENT PROCESS & INTEGRATED WATER USE LICENSE APPLICATION

FOR THE REDEVELOPMENT OF A NEW 500 BED DR YUSUF DADOO HOSPITAL, KRUGERSDORP EAST, MOGALE CITY LOCAL MUNICIPALITY, WEST RAND DISTRICT, GAUTENG PROVINCE

(GDARD Ref. Gaut 002/17-18/E0243)

1. PURPOSE OF THE BACKGROUND INFORMATION DOCUMENT

This Background Information Document (BID) provides you as interested and affected party with background information on the proposed redevelopment of the Dr Yusuf Dadoo Hospital in Krugersdorp East in the West Rand Region. The document also provides information regarding the Basic Assessment Process (EIA Study) and Water Use License (WUL) Application Procedure that will be undertaken to obtain the Environmental Authorisation and Water Use License to lawfully permit the development and its associated water uses.

Both the authorisation processes to be undertaken are subject to a public participation process. The BID therefore indicates how you can become actively involved in the project, receive project information and raise issues that may concern and/or interest you. The sharing of information forms an important component of the public participation process and provides you an opportunity to become involved from onset.

You can achieve this by:

- Registering as an interested and affected party (I&AP) by completing the attached Comments and Registration form, telephonically contacting use or by sending us an email;
- Review this Background Information Document
- Submitting any comments/views on the project on the enclosed Comments and Registration Form;
- Submitting comments in writing to Naledzi;

Please complete the attached Comments and Registration Form if you wish to register as an I&AP or contribute comments. Register / comment and return the form to Naledzi on or before 17 May 2018.

Naledzi Environmental Consultants CC

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2. INTRODUCTION

The Gauteng Department of Infrastructure Development (GDID) proposes to redevelop the Dr Yusuf Dadoo Hospital on a new site in Krugersdorp East in Mogale City Local Municipality in the West Rand District of Gauteng Province. GDID in conjunction with the Department of Health will build a new 500 bed facility on a new site next to the existing Dr Yusuf Dadoo Hospital. This is prompted by the inability of the existing hospital to cater for the growing regional health care demand in its catchment area.

For the GDID to commission the project it requires an Environmental Authorisation (EA) in line with the Environmental Impact Assessment (EIA) Regulations published in Government Notice 982 of 10 December 2014 and its listing notices GNR 983, 984 and 985 (read with GNR 324, 325, 326 & 327 of 7 April 2017) under the National Environmental Management Act 107 of 1998 (NEMA). Application will be made to the Gauteng Department of Agriculture and Rural Development (GDARD) for the proposed development. The application is subject to a Basic Assessment Process (EIA Study).

A Section 21 WUL Application will also be lodged for associated water uses in terms of the National Water Act 36 of 1998 (NWA) to the Department of Water and Sanitation (DWS): Crocodile West and Groot Marico Catchment Management Agency.

Moditi Consulting Engineers Pty Ltd has appointed Naledzi Environmental Consultants CC, on behalf of the GDID to undertake and manage the applications. An integrated approach will be followed to obtain the required authorisations.

3. PROJECT LOCATION

The current Dr Yusuf Dadoo Hospital is located on the corner of Hospital and Memorial Street west of the R28 and north of the R24 main roads in Krugersdorp East.

The new project site (expansion land) is located next to the existing hospital on **Erf 688 of Monument Extension 1** and **Portion 7 (remaining extent) of the farm Paardeplaats 177IQ** in Krugersdorp East. The site co-ordinates are 26° 6'8.88" South and 27° 47'21.87" East.

The project site is an 'open space' and 'conservation area' south of Monument Extension 1 residential area in Krugersdorp. It is characterised by ridges, natural vegetation, the Eeufees dam, a stream and wetland. The land is accessible from Johan Jonker Drive. Refer to Figure 1 for the project location presented on a Google Earth Aerial Map and Figure 2 for Aerial image showing the cadastral boundaries of each of the land parcels.



Figure 1: Project Locality Map for New Dr Yusuf Dadoo Hospital (courtesy of Google Earth)

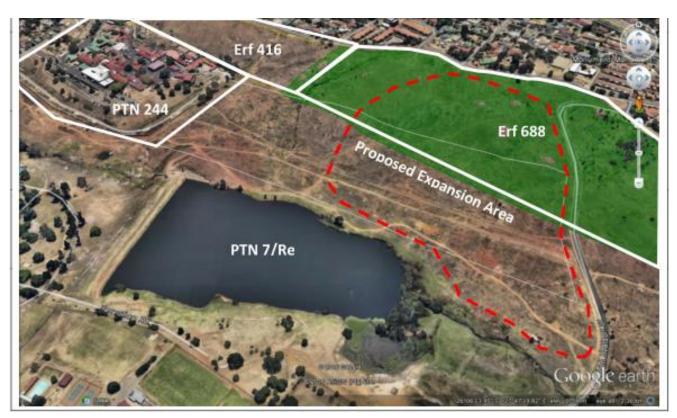


Figure 2: Aerial Photograph showing the proposed development area and land parcel boundaries (courtesy Google Earth)

In terms of the Krugersdorp Town Planning Scheme Erf 688 is zoned as a 'Public Open Space'. The current land use zoning of Portion 7 (remaining extent) farm Paardeplaats 177IQ is 'conservation area'. These land use parcels would need to be consolidated and rezoned for Institutional/Hospital use to permit the development.

The project site is also corresponds to a Terrestrial/Geographical area according to the Gauteng Conservation Plan. It is located in an Ecological Support Area (ESA) which plays an important role in supporting the ecological functioning of priority biodiversity areas/critical biodiversity areas.

4. WHY IS THIS DEVELOPMENT REQUIRED AND DESIRED AT ITS LOCATION?

The existing Dr Yusuf Dadoo Hospital is a level one district hospital with approved acute bed of 175 and is located in Krugersdorp in the West Rand Region. The West Rand has a catchment population of 18 716,469 of which Mogale City accounts for 309,276 and on average, about 15 000 patients are seen per month at the hospital.

Over the years the hospital has experienced pressure in catering for the increasing population within the surrounding areas and beyond. The redevelopment of the hospital is based on the incapacity of the existing hospital to cater for the growing population within its catchment area.

It is therefore desirable to develop a facility that is significantly larger than the existing facility to cater for the need and growing demand for regional health care.

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5. ALTERNATIVES CONSIDERED

To address the regional health care demand in the area and further capacitate the existing hospital, three alternative options were considered:

- 1) Redevelop the hospital in its existing position and structure by way of renovation
- 2) Redevelop the hospital in a nearby position where the facility could be relocated to and redeveloped
- 3) Redevelopment of the hospital in a totally new position within Mogale City Local Municipality

The second option has been selected where the hospital is redeveloped near its current position. The EIA Study and reporting would therefore be focussed on this option.

6. PROJECT DESCRIPTION

The proposal entails the construction of a new 500 bed major hospital, with outbuildings, parking bays, roads and landscaped areas next to the existing Dr Yusuf Dadoo Hospital.

The project site land parcels are 338.3 hectares, yet only 6 hectares would be required for the development of the hospital. It is proposed that the hospital is built on the flatter area closer the Eeufees Dam.

It is anticipated that the following facilities would be built as part of the development infrastructure:

- 500-bed new general hospital (50 370m2)
- TB wards & psychiatric unit (located external to hospital for infection control)
- Wellness Clinic (342m²)
- Recreational building (322m²)
- Ambulance base (484m²)
- Nurses residence (701m²)
- Students residence (3 636m²)
- Professional staff accommodation (882m²)
- Parking bay area (820 parking bays), roads and landscaped areas
- Guard House and perimeter fence

The project site will cater for expansion of the new hospital in 5-7 years to add supporting medical services, wards and consulting rooms (sufficient land has been identified for expansion in future).

The hospital will have four main service categories:

- <u>Clinical Services</u> (Trauma, emergency medicine, high care, internal medicine, general surgery, Orthopaedics, Paediatrics, Gynaecology, Obstetrics, Psychiatry, Geriatric medicine, step downand Palliative care, Communicable Diseases, Oral Health Services, Prevention Services, Ophthalmology, Allied Health Services)
- <u>Health Support Services</u> (Pharmacy, Laboratory Services, Radiology, Mortuary, Operating theatres, Social support services, Home Affairs, CSSD)
- <u>Administrative Services</u> (Reception and admission, procurement, finance HRM, HRD, public relations, transport, switchboard, Training and Resource Centre)
- <u>Facility Management Services</u> (Waste Management, Laundry, bulk stores, workshops, cleaning staff, , crèche, canteen, main kitchen, central stores, gas stores, accommodation)

The main hospital building will be made up of the following groups per storey:

- Front of House Services 1st & 2nd Floor: Services include admissions, adult & paediatric outpatient departments, comprehensive care management, and termination of pregnancy.
- **Emergency Services** Ground Floor: Services include casualty, medico legal services, admission ward and radiology co-located with hospital administration area.
- Surgical Accommodation: 2nd Floor: Services include operating theatres, CSSD, adult high care, labour ward and anti-natal wards;
- **Impatient wards** All 5 medical wards are located at 5th Floor level, all surgical wards are in the 4th Floor, woman & children's inpatient wards are located on the 3rd floor close to operating theatres.
- Facility Management Services: 1st and 2nd Floors: Services include waste management, mortuary, bulk stores, workshops, cleaning staff, crèche, canteen, main kitchen, laundry, security and a museum.

Services Requirements:

The existing hospital has a full supply of services in respect of electrical, water and sewer. The new hospital is merely redevelopment of the existing facility. An Engineering Services Report will be prepared for the project which quantifies the services requirements for the new hospital.

Water and Sewer: The hospital will obtain water from the municipal water system for its domestic and firefighting requirements. It will further connect to the municipal waterborne sewer system. The availability of both water and sewer supply will be confirmed through an Engineering Services Report.

Waste Management: The hospital would generate health care general waste (HCGW-no harmful properties to environment/humans) and health care risk waste (HCRW-hazardous waste such as such as chemical - , genotoxic -, infectious - and sharps, isolation -, laboratory -, pathological waste, pharmaceutical waste, pressure cans, waste with high content of heavy metals). HCGW would be removed by the Mogale City Local Municipality to a registered municipal landfill site.

HCRW would be removed to a registered hazardous waste landfill site/facility by a private service provider. It is expected that the hospital would generate more than 20kg/day of HCRW calculated monthly as daily average. It will register on GWIS as a Generator of HCRW and apply for approval of Health Care Waste Management Plan in terms of the Gauteng Health Care Waste Management Regulations.

Electricity: The existing demand at the hospital is 2.5MVA-3MVA which is the same requirement for the proposed hospital. Electricity is available from Mogale City Local Municipality for the development through existing infrastructure. There may however be a requirement to build a sub-station and connections.

Access to the hospital: The site will require direct access from the existing Johan Jonker Drive. A road determination will be undertaken with a Traffic Impact Study to design the intersection and internal road system.

Storm water management system: Existing and proposed infrastructure for storm water management will be considered and addressed in an Engineering Services Report.

7. VISUAL IMPRESSION OF PROPOSED NEW HOSPITAL ON THE PROJECT SITE



Figure 3: 3D Visual Impression of proposed hospital close to the Eeufees Dam

8. LEGISLATIVE REQUIREMENTS

The project is subject to compliance with three pieces of legislation:

- A. National Environmental Management Act, 1998 (Act 107/1998) and its promulgated EIA Regulations of 2014 under GNR 982, 983, 984 & 985 (as amended by GNR 324, 325, 326 & 327 of 7 April 2017);
- B. National Water Act, 1998 (Act 36 of 1998) and its promulgated WULA Regulations of 2017
- C. National Environmental Management: Waste Act 59 of 2008 and the Gauteng Health Care Risk Waste Management Regulations of 2004.

The applicability of the acts are detailed below:

8.1 National Environmental Management Act 107 of 1998 and EIA Regulations of 2014

In terms of the NEMA EIA Regulations of 2014 the project requires an Environmental Authorisation (EA). GN 983, 984 and 985 of the regulations schedules listed activities which require EA. The project triggers activities under GN 983 and 985 and is subject to a Basic Assessment Process.

Activities triggered under GNR 983 and GNR 985 (read with GNR 324 & 327 of 7 April 2017) includes:

• **GNR 983 - Activity 27:** The clearance of an area of 1 hectare or more but less than 20 hectares of indigenous vegetation.

- **GNR 985 Activity 4:** The development of a road wider than 4 meters with a reserve of less than 13.5 m in (c) Gauteng (vii) sites identified as Ecological Support Areas in the Gauteng Conservation Plan and (xii) sites zoned for public open space;
- GNR 983 Activity 12: The clearance of 300m² or more of indigenous vegetation, except where the clearance is required for maintenance purposes undertaken in accordance with a maintenance plan (c) Gauteng Province (ii) within ecological support areas (iii) on land, where, at the time of coming into effect of this notice or thereafter such land was zoned open space.
- **GNR 985 Activity 14**: The development of (ii) infrastructure/structures with a physical footprint of 10m^2 or more where such development occurs within 32 m of a watercourse, measured from the edge of a watercourse (c) in Gauteng (i) sites identified as Ecological Support Areas (x) sites zoned for public open space.
- **GNR 985 Activity 15:** The transformation of land bigger than 1000m^2 in size, to **institutional use**, where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010 (b) Gauteng (i) All areas.

GDID is required to submit an application for EA for the above listed activities to the GDARD and undertake a BA Process. The application is subject to submission of a Basic Assessment Report (BAR) and Environmental Management Programme (EMPR) to GDARD for decision making. The reports are to describe the potential environmental impacts of the development, how such impacts will be managed and detail the public participation process undertaken. The process is ultimately a planning and decision making tool for the competent authority and is regulated at 197 days.

8.2 National Water Act 36 of 1998 (NWA) and WULA Regulations of 2017

The development triggers water uses defined in Section 21 of the NWA. A WULA will be made in terms of Section 40 of the NWA for the water uses associated with the proposed development. Application will be made to the DWS Gauteng Province under the Crocodile (West) and Marico Water Management Area in line with the *Regulations for Procedural Requirements for Water Use License Applications and Appeals* GNR 267 of 24 March 2017.

The development will take place within a radius of 500m from the edge of a delineated wetland and riparian area. Hence a WULA needs to be submitted to DWS in this regard to obtain a Water Use License. Water uses defined in Section 21 of the NWA relevant to the development include:

- Section 21 (c) Impeding the flow of water in a watercourse (development of hospital within 32 m of watercourse and Eeufees Dam)
- Section 21 (i) Altering the bed, banks, course or characteristics of a watercourse (development of hospital within 32 m of watercourse and Eeufees Dam)

GDID is required to submit a WULA forms Report to the DWS and undertake a WULA Procedure followed by submission of a Water Use Technical Report to the DWS for decision making. A consultation meeting and site visit would be undertaken with the DWS to confirm water uses triggered and information requirements. The WULA Procedure is regulated at 300 days.

8.3 National Environmental Management: Waste Act 59 of 2008 (NEM: WA)

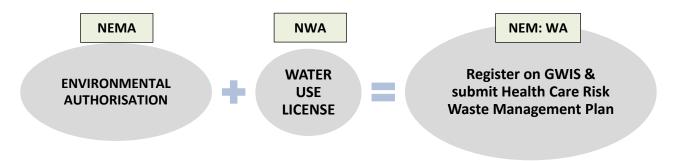
Hospital facilities generate Health Care General Waste (HCGW) and Health Care Risk Waste (HCRW). HCGW is not harmful to humans yet HCRW is considered a hazardous waste which consist of chemicals

as chemical - , genotoxic -, infectious - and sharps, isolation -, laboratory -, pathological waste, pharmaceutical waste, pressure cans, waste with high content of heavy metals.

In terms of the NEM: WA, HCRW generators must have a detailed Waste Management Plan that ensures legal compliance (standard operating procedure). A HCRW generator who generates more than 20kg/day of HCRW calculated monthly as a daily average must apply to the GDARD for:

- Approval of their Health Care Waste Management Plan prepared in terms of the Gauteng Health Care Waste Management Regulations of 2004.
- The generator is also required to register their facility on the Gauteng Waste Information System (GWIS).

GDARD requires that the registration and waste management plan be substantiated by an authorised facility. Hence once the new Dr Yusuf Dadoo Hospital receives its EA, Naledzi will register the hospital on the GWIS and submit the Health Care Risk Waste Management Plan for approval.



9. BASIC ASSESSMENT PROCESS AND WULA PROCEDURE

THE BA PROCESS INVOLVES 3 PHASES:

Phase 1: Information gathering & Public Participation;

Phase 2: Basic Assessment Report (BAR) & EMPr

Phase 3: Decision Making.

The BA procedure is described in Regulation 19 of the NEMA EIA Regulations 2014. The procudure incorporates public participation from throughout the process.

The aim is to form an initial assessment of potential impacts of the proposal. The potential impacts are identified on the basis of baseline site investigations, desktop analysis and use of Global Information Systems by specialists to assess the site, as well as information gathering from the public and I&Aps. The impacts are then assessed, ranked and recorded in a BAR, which contains the findings of the site investigations, assessment of impacts posed by the project. The EMPr will contain the management measures to be applied to the development. The BAR & EMPr will be distributed to all I&Aps, stakeholders for comment for a period of 30 calendar days.

The BA Process involves the following tasks:

Phase 1 – Announce project to the I&APs

• Announce the project to I&APs (advertisements in local newspaper, site notices in public areas, notifications to I&APs)

- Distribution of a BID and letter to I&APs to participate in the BA Process and allow registration on the project over a 30 days calendar period;
- Capture all issues raised in an Issues and Response Report (IRR) and respond thereto in the IRR. The IRR forms part of the BAR.

Phase 2 – Prepare BAR & EMPR, availablity of reports for public review, Public Information Session

Conduct a Basic Assessment Investigation and specialist studies to inform the BAR & EMPR. The BAR will be prepared, which will contain:

- a preliminary description of the proposed project;
- the potential impacts posed by the project (positive as well as negative);
- detailed specialist studies assessing the significance of the anticipated impacts of the proposed development;
- a record of all comments and concerns raised by I&AP's
- proposed mitigatory measures to be implemented by the applicant in order to curb the anticipated negative impacts

The BAR will be made available for public comment for 30 consecutive calendar days. All registered I&AP's will be notified about the availability of the BAR by letter and advertisements which will be placed in local newspapers. A public information session will be arranged to facilitate comments on the BAR & EMPr.

The application for environmental authorisation together with the BAR will be submitted to GDARD as the BAR goes out for public review.

After the comment period, the BAR will be finalised and public comments will be incorporated. The final BAR will then be submitted to GDARD within 90 days from application submission.

Phase 3 – Decision Making

After submission of BAR, the competant authority (CA) has 107 days to review and reach a decision on the application. The CA will notify the applicant of the decision and an environmental authorisation or refusal will be issued to the applicant.

Public review of the environmental authorisation: I&Aps will be notified of the deicsion within 14 days of issue. The environmental authorisation will be made available for public review for a period of 20 consecutive calendar days. (appeal period on decision).

THE WULA PROCEDURE INVOLVES 5 STEPS:

This procedure is integrated with the BA process. It comprises 5 steps:

Step 1: Pre-Application Meeting with DWS on site

Step 2: WULA submission to DWS

Step 3: Site Inspection by DWS

Step 4: Water Use Techical Report & Pre submission consultation with DWS

The tasks for the WULA include:

- A pre-application meeting with DWS prior to application submission;
- Submission of an application for water use license as contemplated in regulation 6 to the DWS;
- A site visit with DWS to confirm information requirements to be included in the water use technical report within 30 days from application submission
- Submission of a water use technical report (WUTR) within a period of 105 days from being informed of information requirements to DWS;
- DWS will evaluate the WULA and WUTR within 139 days;
- The WULA will be finalised within 144 days from acceptance of the WUTR, after which DWS will issue a Water Use License.

The WULA and BA Process is integrated and public consultation results for the BA Process will be used for the WULA and will be made available to both GDARD and DWS.

10. PUBLIC PARTICIPATION PROCESS AND REVIEW OF BAR & EMPR

The public participation process aims to enable land owners, lawful occupiers, directly affected individuals and or Interested and Affected Parties (I&APs) to raise any issues, comments and or concerns regarding the proposed development.

I&APs will have the opportunity to contribute to the project as follows:

- Registering as an I&AP on the project database
- Submitting any comments on the BID within a period of 30 calendar days
- Review and commenting of the Draft BAR and EMPR
- Attending a public information session
- Notification and review of the issued EA and WUL

11. CHARACTERISTICS OF SITE AND POTENTIAL IMPACTS TO BE CONSIDERED

The project site is undeveloped and covered in Gold Reef Mountain Bushveld indigenous vegetation and class 2 ridges. It is zoned as a public open space and conservation area. The site is characterised by ridges, a stream, the Eeufees Dam and a wetland. The land slopes south west to the stream and 3 small drainage features drain to the dam on the flatter area of the site. There are also existing footpaths onsite.

Standard buffer zones will be applied to the wetland and dam which clearly define no-go zones for development. The hospital will be designed away from the ridges based on the requirements of the GDARD Ridge Guideline Policy.

The surrounding land uses include housing (north- Monument Extension 1), vacant land (east), academic facilities Alma Master and Coronation Park (south) and the existing Dr Yusuf Dadoo hospital (west).

As stated under point 4 of the BID, Erf 688 is zoned as a 'public open space' and Portion 7 (remaining extent) as a 'conservation area'. The majority of the project site corresponds to an Ecological Support Area according the Gauteng Conservation Plan.

The preliminary environmental issues that have been identified for the development include:

- Geotechnical characteristics/constraints of the project site
- Impact on heritage and cultural resources
- Impact on aquatic ecosystems (stream, wetland, dam)
- Impact on ecology (vegetation and animals)
- Increased storm water due to hardened surfaces may increase erosion and sedimentation into streams and dam;
- Increased erosion and sedimentation
- Increased traffic along the transport routes and proposed access roads (generate traffic in peak periods, significantly affect Johan Jonker Drive, increased pedestrian traffic);
- Increase in noise and dust during construction from construction activities;
- Increase in noise during operation from use of backup generators, other hospital infrastructure,
 movement of traffic and emergency vehicles;
- Impact on security (influx of labourers and job seekers, trespassing adjoining properties, influx of people such as patients, their families and hospital staff)
- Impact on current land use and adjacent land uses
- Waste management (Health Care Risk Waste, Health Care General Waste, domestic waste)
- Potential employment opportunities from the construction and operation of the development;

The potential environmental impacts associated with the development will be identified, assessed and significance of impacts determined through the BAR and managed through a detailed EMPr. The draft BAR & EMPR as stated will be made available for public review and details thereof will be communicated to I&APs.

12. SPECIALIST STUDIES

The BAR and EMPr is informed by specialist investigations undertaken for the proposed development. Based on the site characteristics and preliminary identified impacts the following specialist investigations will be undertaken to further assess the environmental features onsite:

- Geotechnical Investigation
- Heritage Impact Assessment
- Wetland and Aquatic Delineation / Assessment
- Storm Water Management Plan
- 1:50 and 1: 100 year Floodline
- Bulk Services Report and
- Traffic Impact Assessment

13. BA PROCESS AND WULA PROCEDURE DIAGRAMME

Public Participation / consultation will be ongoing throughout the BA Process. Refer to diagramme on page 13 which provides a detailed schematic illustration of the steps in the BA Process.

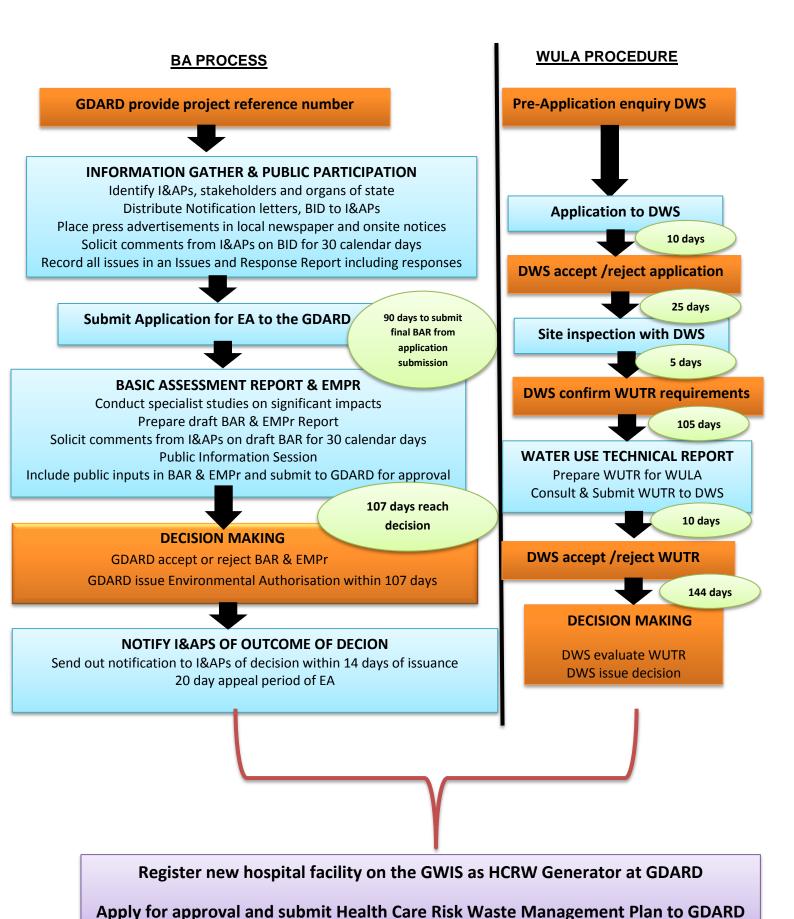
14. REFRESHER AS TO HOW YOU CAN PARTICIPATE

- By responding (by fax or email) to our email to participate;
- By returning the attached Comment and Registration Form to the address given below either by fax and or email;
- By telephonically contacting us if you have any queries, comments or issues
- By reviewing and commenting on the Draft BAR within the stipulated timeframes (once available)
- Attending any public information sessions arranged for the project (still to be announced).

Complete the Comment and Registration Form enclosed with the BID, this allows I&APs to comment on the project. Send the form back to us **on or before 17 May 2018**. Contact Marissa Botha, Tel: 015 296 3988 / Cell: 084 226 5584 or send us your comments by email to botham@naledzi.co.za or either by fax number to 015 296 4021.

15. Whats next?

All comments and issues received during the public registration and comment period on the BID will be incorporated into an IRR, and responded to. We will prepare a draft BAR and EMPr for the project which will be made available for public review for 30 calendar days. Issues and concerns raised regarding the development will be addressed in the BAR & EMPR. A Public Information Session will be scheduled to facilitate comments on the BAR & EMPr. The details of these tasks will be communicated to I&APs post the public registration and comment period.



Background Information Document