

**CEN INTEGRATED ENVIRONMENTAL
MANAGEMENT UNIT**



Environmental and Rural Development Specialist

FINAL BASIC ASSESSMENT REPORT:

**PROPOSED KWANONKQUBELA / ALEXANDRIA
COMMUNITY HEALTH CENTRE ON ERF 623,
ALEXANDRIA,
NDLAMBE LOCAL MUNICIPALITY,
EASTERN CAPE**

DEDEAT REFERENCE NO: EC05/C/LN1&3/M/66-2014

March 2015

REVISIONS TO THE BASIC ASSESSMENT REPORT

This document is based on the Draft Basic Assessment Report. Additions and changes to the report are indicated by yellow (grey in black and white version) highlighting.

Project Title:

Final Basic Assessment Report:

Proposed Kwanonkqubela / Alexandria Community Health Centre On Erf 623, Alexandria, Ndlambe Local Municipality, Eastern Cape

Project Applicant:

Eastern Cape Department of Health

Reference Number:

DEDEAT REFERENCE NO: EC05/C/LN1&3/M/66-2014

Environmental Assessment Practitioner:

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Date of Report:

24 March 2015

Executive Summary

CEN Integrated Environmental Management Unit (CEN IEM Unit) was appointed by to undertake the environmental assessment for the Proposed Kwanonkqubela / Alexandria Community Health Centre on Erf 623, Alexandria, Ndlambe Local Municipality, Eastern Cape.

CEN IEM Unit meets the requirements for an independent Environmental Assessment Practitioner (EAP) in terms of the Environmental Impact Assessment (EIA) Regulations of 18 June 2010 (GN R. 543) and in terms of the EIA Regulations of 4 December 2014 (GN R 982) (in terms of the National Environmental Management Act, Act 107 of 1998 as amended).

Overview of Proposed Project

The applicant, the Eastern Cape Department of Health, proposes to establish a new Community Health Centre (CHC) on Erf 623 in KwaNonkqubela Township, Alexandria, Ndlambe Local Municipality, Eastern Cape (central GPS coordinates: 33° 39' 16.87" S, 26° 25' 10.58" E; locality shown in Figure 1). The 21digit Surveyor General code for the property is C00400010000062300000. The boundary co-ordinates of the proposed Alexandria CHC are:

- a) 33°39'15.80"S, 26°25'6.78"E
- b) 33°39'13.93"S, 26°25'9.50"E
- c) 33°39'17.21"S, 26°25'15.87"E
- d) 33°39'18.64"S, 26°25'15.49"E
- e) 33°39'20.34"S, 26°25'10.97"E

The total project site is approximately 3.37ha in extent, and within this area approximately 2.3ha will be used for the CHC (footprint area) and associated buildings or services. The site is located along and directly to the east of Winnie Madikizela Street, from which it can be accessed. The Winnie Madikizela Street is the main access road into the KwaNonkqubela Township, from the R72.

The proposed CHC will involve the following:

- a) Construction of the new Alexandria Community Health Centre (building footprint 4491.1 m²);
- b) Construction of staff housing (525 m²);
- c) Construction of parking bays, access roads, islands and walkways and a drop-off zone (76 parking bays, 1086m²; roads: 924.93m²; islands / walkways: 1969.71m²);

- d) Installation of service infrastructure (water, sewerage, stormwater, electricity, etc.);
- e) Installation of security fencing around the site.
- f) Construction of an elevated water tank and booster pump house. Estimated capacity is approximately 320m³ (288m³ for four hour fire demand and 23m³ per day water demand).

The proposed CHC will include the following:

- a) Female, male and paediatric wards
- b) Radiology (x-ray) unit
- c) Consultation and treatment rooms
- d) Counselling rooms
- e) Pharmacy
- f) Gym areas for rehabilitation
- g) Dental unit
- h) Crisis counselling rooms
- i) Maternity (first stage labour and delivery) unit
- j) Emergency rooms
- k) Doctor and nurses stations
- l) Mortuary
- m) General storage and work areas

Water will be supplied from a network of four (4) existing reservoirs that supply the Kwanonkqubela Township, into an elevated water tank. Sewage from the proposed CHC will connect to the existing municipal sewer, at one point. The sewage throughput from the site is estimated at 17,000 l/day (17m³/day). Stormwater will be channelled via a combination of open channels and subsurface pipes. The stormwater will then be discharged to the east of the proposed CHC into the natural open area and will then flow overland into the stream / drainage line. The stormwater pipes will have a minimum diameter size of 450mm (and are less than 1000m in length). Reno mattresses (3x2m) have been provided at the stormwater outlets and this will assist in preventing erosion.

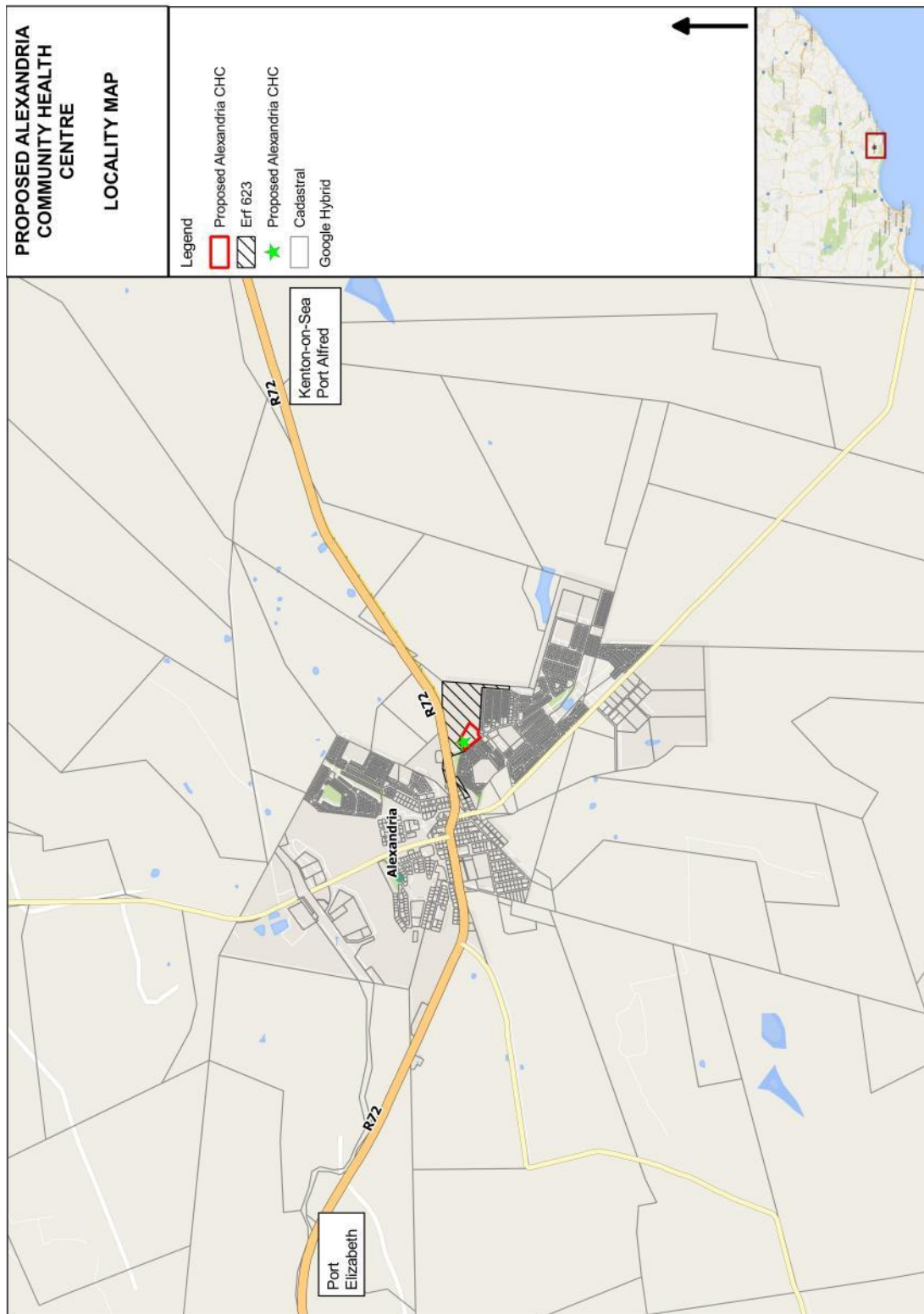


Figure 1: Locality Map

Project Motivation

To strengthen the health system, the Department of Health needs to undertake a number of equally important initiatives. This includes the need to change health service delivery from a curative model to one that promotes cost-effective Primary Health Care (PHC) as close to the community and households as possible. This must be supported by strong enhancements in management and supervision of facilities. The Department of Health, with the help of key partners, will develop and implement a model for delivering PHC services that gives incentives for health promotion and disease prevention at the household and community level.

The existing KwaNonkqubela and Wentzel Park clinics are situated 65 km to the next referral hospital which is the Port Alfred Hospital. The Alexandria area is very vast, rural and a farm area and borders on the Nanaga area, which is a high accident area where it crosses the Port Alfred / Alexandria, Grahamstown, Cradock and Port Elizabeth routes. Both clinics provide a comprehensive primary health care service, and are 1 km apart.

The intention is to integrate the two facilities (i.e. KwaNonkqubela and Wentzel Park clinics) to one facility as the proposed Alexandria Community Health Centre (CHC) with a component of first level service (a clinic) and the CHC providing a comprehensive CHC Primary Health Care Core Package.

Spatial Planning Requirements

The proposed property (Erf 623) will be subdivided for the area of the proposed CHC. This portion of the property will be rezoned from Open Space to Institutional. The subdivision and rezoning application is being undertaken separately to Basic Assessment.

The Ndlambe Municipality 2nd Draft Local Spatial Development Framework (2012) (SDF) specifically refers to residents highlighting 'the need for a large satellite clinic in KwaNonkqubela due to the increase in demand for health services in the area'. The SDF also refers to: the need for centralisation of facilities / business nodes between communities to the north and south of the R72; the need for an overall upgrade of services in KwaNonkqubela Township, and the redevelopment of vacant land in order to curb the spread of informal settlements into open space areas, particularly to the east of the township.

The SDF also stresses the relatively high number of pedestrians (37% in 2001) in Alexandria, compared to vehicle owners and users of public transport, and the need for pedestrian friendly environments, facilities and walkways in the town. The creation of local nodes in the KwaNonkqubela and Wentzel Park areas, to provide services and resources at walkable distances, is, therefore, essential in accommodating the town's high number of pedestrians. Proposals in the SDF, for improving the corridors and activity zones in Alexandria, include:

- a) upgrade R72 and main road into KwaNonkqubela into activity corridors;
- b) introduce traffic calming measures along R72 corridor to make it more effective, and
- c) create a pedestrian friendly environment along roads using street lighting and furniture.

Site Description

Vegetation at the proposed site consists predominantly of pioneer grasses and scattered shrubs. The site slopes gently towards the north-east / east, towards a non-perennial stream / drainage line that borders the site.

The general open space area is used for communal cattle grazing, at present, and the site is partially fenced, with a formal park area with trees to the south-east.

There is evidence of illegal dumping of household waste towards the middle of the site, and overgrown rubble heaps towards the north-eastern border of the site. There are also areas with exposed soil, either due to quarrying, dumping of excavated soil, or erosion due to the presence of a storm water outlet off Winnie Madikizela Street (along the western border of the site).

The border of the proposed Alexandria CHC is located more than 80m from the centre line of the non-perennial stream / drainage line, which is located to the north-east of the site.

Refer to Figures 2 and 3 for the Site Plan with Existing Services & Land Cover and Sensitive Areas.

Construction and Operational Activities

The construction phase will be undertaken in approximately 26 months. The following construction activities will be undertaken:

- a) Site clearing and Site office establishment
- b) Construction of infrastructure and services (civil) and CHC facilities
- c) Rehabilitation

The following activities will be undertaken during the operational phase:

- a) Maintenance of the CHC Facilities and of the erosion control measures and stormwater management system.
- b) Monitoring of waste disposal.

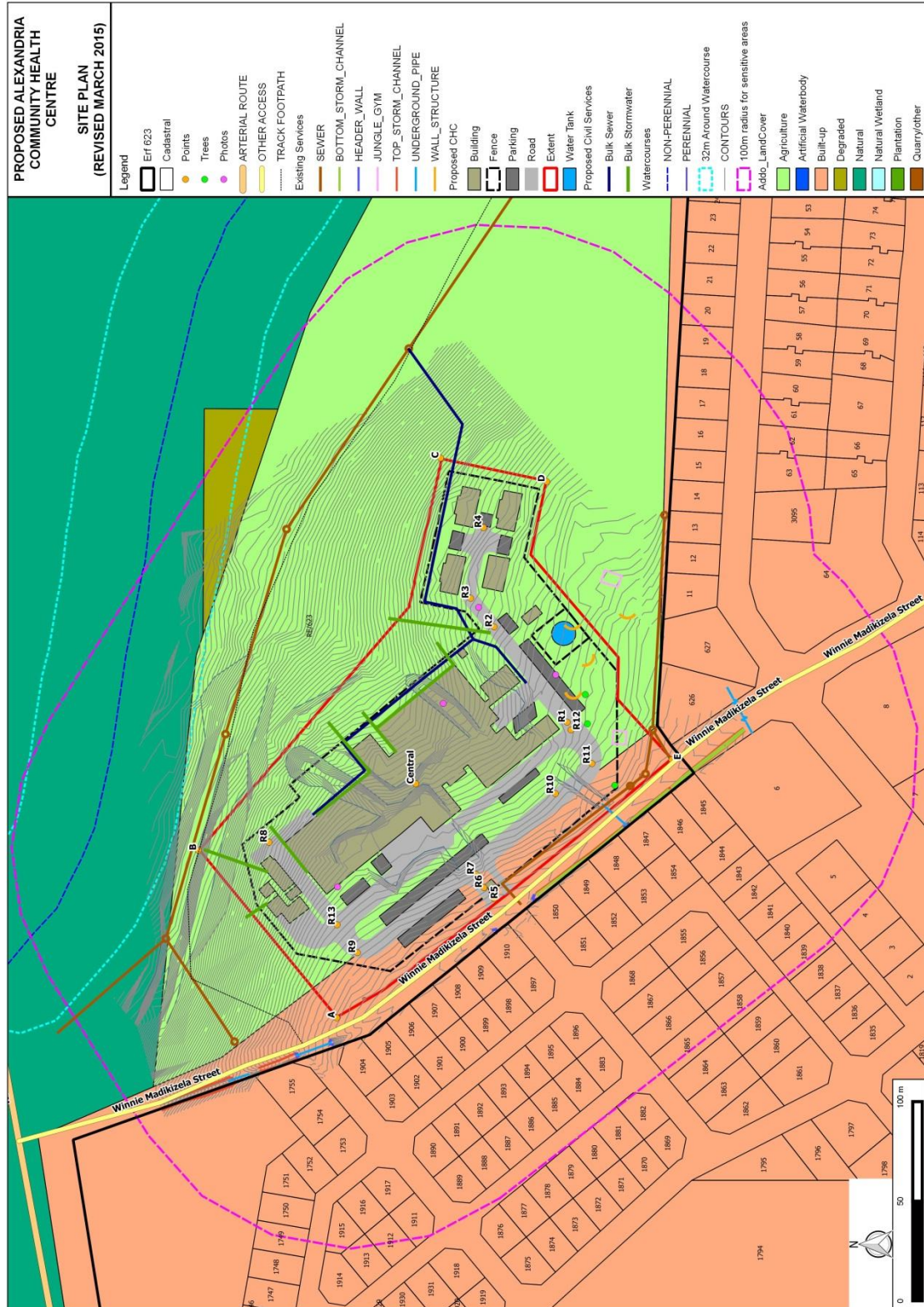


Figure 2: Site Plan with Existing Services & Land Cover (Revised March 2015)

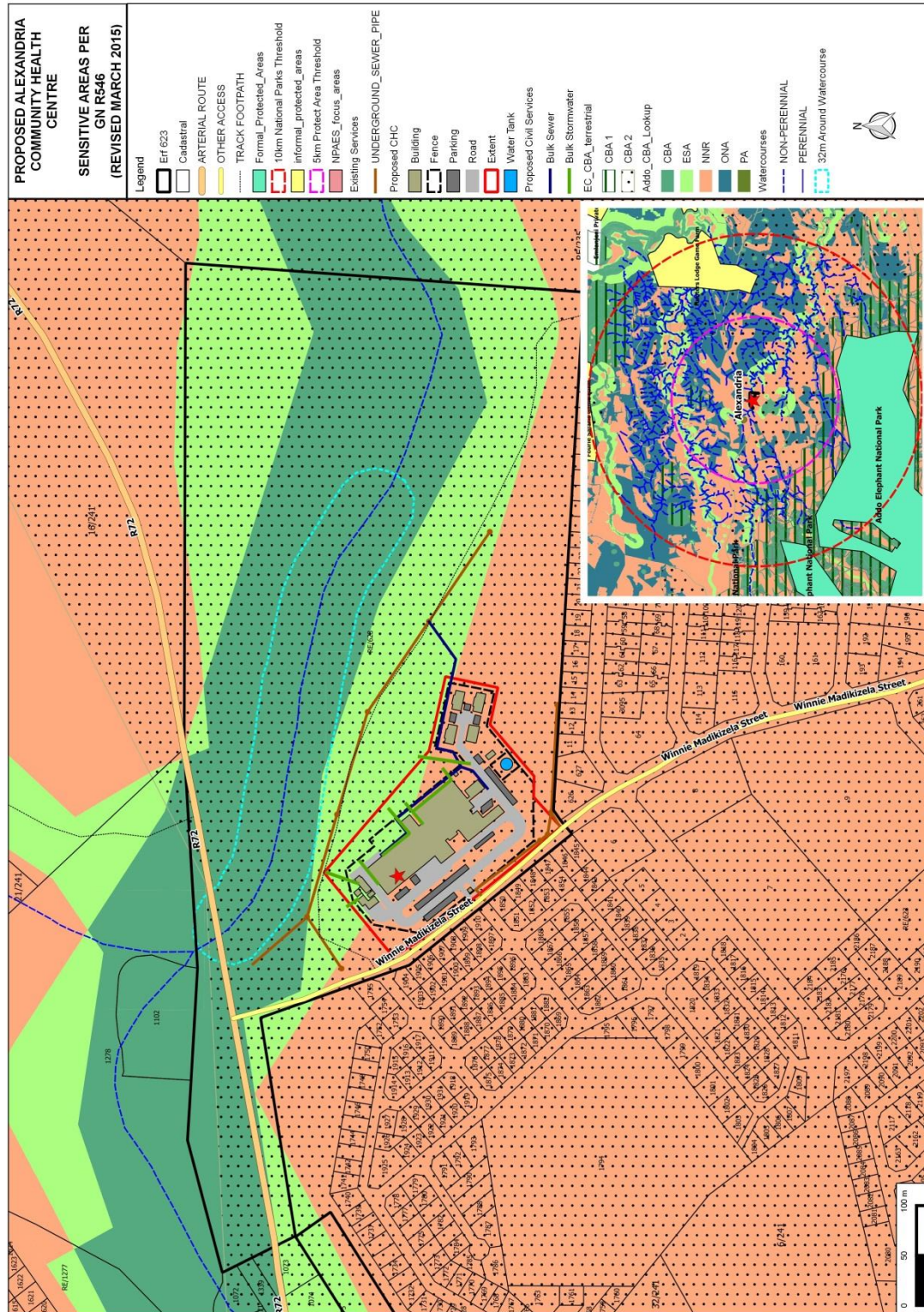


Figure 3: Sensitive Areas (Revised March 2015)

Legislative Framework

Listed Activities in terms of the EIA Regulations

This basic assessment report is a standard template report required by the Department of Economic Development, Environmental Affairs and Tourism in terms of the EIA Regulations, 2010 and 2014.

The Minister of Environmental Affairs and Tourism has in terms of Sections 24 and 24D of the National Environmental Management Amendment Act (Act No. 107 of 1998) (NEMA) as amended, listed the activities that require an environmental assessment.

An application for Environmental Authorisation was submitted on 17 November 2014, in terms of the Environmental Impact Assessment (EIA) Regulations, 2010. The application reference number is EC05/C/LN1&3/M/66-2014. **The Draft Basic Assessment Report was submitted to DEDEAT on 28 January 2015 and acknowledged on 3 February 2015.**

The EIA Regulations, 2014, were published on 4 December 2014 in terms of the NEMA and came into effect on 8 December 2014. Section 53 of the EIA Regulations (2014) states that an application submitted in terms of the EIA Regulations (2010), and which is pending when the EIA Regulations (2014) take effect, must despite the repeal of the former, be dispensed with in terms of the former as if they were not repealed. Therefore, the EIA Regulations (2014) are not applicable to this application.

In addition, if an activity that is listed under EIA Regulations (2010) does not form part of the EIA Regulations (2014), the Competent Authority (i.e. DEDEAT) will consider the said activity to be withdrawn from the application.

In terms of the EIA Regulations, 2010, made under Section 24(5) of NEMA, listed activities within Government Notice R. 544, and R 546 (of 18 June 2010 as amended) are triggered by the proposed development, thereby requiring environmental authorisation from the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).

Listed Activities in terms of the National Environmental Management: Waste Act

No waste management activities as listed in GN R.921 of 29 November 2013 in terms of Section 19 (1) of the National Environmental Management: Waste Act No. 59 of 2008 (NEM:WA) are triggered.

Listed Activities in terms of the National Heritage Act

A Heritage Impact Assessment was undertaken and no heritage resources were identified within the proposed site. Refer to Appendix D.

Methodology

In preparing this assessment, readily available information relating to the affected environment was collected and reviewed for use in the report. Every effort was made to use the most current information. Refer to **Appendix J-3** for assumptions and limitations.

Members of CEN IEM Unit visited the site in November 2014 to undertake the relevant site assessments of the proposed development site. The site visit was used to determine the nature of the affected environment and to identify potential environmental issues of concern.

Public Participation

Various mechanisms were used to create awareness of the proposed project among the people that may be directly or indirectly affected by the proposed project. The announcement of the project included the following:

1. Newspaper advertisements appeared in The Herald (English and isiXhosa), and in Die Burger (Afrikaans), 19 November 2014.
2. Two A2-sized site notices in English and isiXhosa.
3. Notifications, including the Background Information Document (BID), were sent to I&APs and Organs of State on 19 November 2014 to notify them of the proposed project.
4. A focus group meeting was held with the ward councillor on 21 November 2014.

The Draft Basic Assessment Report has been made available for a 40 day review period to state departments and registered I&APs from 30 January – 11 March 2015.

The Final Basic Assessment Report will be available for a 21 day review period, from 24 March – 16 April 2015.

Table 2 presents a summary of the main issues raised and response.

Table 1: Summary of Issues and Response

Summary of main issues raised by I&APs	Summary of response from EAP
Forest vegetation	Planted specimens of <i>Podocarpus falcatus</i> (Outeniqua Yellowwood) are on site, as well as planted specimens of <i>Erythrina caffra</i> (Coral Tree). No natural forest areas are located on site.
The commonage is used for cattle grazing.	The community will be informed prior to construction commencing regarding the use of alternative commonages for the grazing of cattle.

Summary of main issues raised by I&APs	Summary of response from EAP
<p>The safety of, and type(s) of pedestrian access planned for the site – particularly paths across and along the R72 from the Wentzel Park area.</p> <p>Traffic calming measures and speed limitations on the R72 turnoff into Winnie Madikizela Street / KwaNonkqubela Township.</p> <p>Traffic calming measures in front of proposed clinic, on Winnie Madikizela Street.</p>	<p>The Ndlambe Municipality’s SDF stresses the relatively high number of pedestrians in Alexandria, compared to vehicle owners and users of public transport, and the need for pedestrian friendly environments, facilities and walkways in the town. Proposals in the SDF, for improving the corridors and activity zones in Alexandria, include:</p> <ul style="list-style-type: none"> o upgrade R72 and main road into KwaNonkqubela into activity corridors; o introduce traffic calming measures along R72 corridor to make it more effective, and o create a pedestrian friendly environment along roads using street lighting and furniture. <p>It is recommended that the above proposals from the Ndlambe Municipality’s SDF be implemented, as well as to provide and maintain traffic calming measures along the proposed Alexandria CHC access road (Winnie Madikizela Street).</p> <p>The following recommendations from the Traffic Impact Assessment have been incorporated as mitigation measures:</p> <ul style="list-style-type: none"> o A minimum 3m wide right-turn lane to be introduced at the R72 / Winnie Madikizela Street intersection, to provide for increased safety of stationary vehicles waiting to turn right. The R72 to be widened by approximately 3m on the northern side over a 50m distance in order to accommodate the right-turn lane with an opposing painted traffic island. o A two-way stop controlled access to be implemented for the access point to the proposed CHC, with Winnie Madikizela Street having right of way. Adequate provision should be made for pedestrians and mobility impaired people at this intersection through the provision of dropped kerbs with pedestrian ramps. o Two formal public transport stops, inclusive of embayments, loading platforms, shelters, street lighting, and a pedestrian crossing be introduced in Winnie Madikizela Street at the Pele Street intersection adjacent to the main

Summary of main issues raised by I&APs	Summary of response from EAP
	<p>access of the proposed CHC.</p> <ul style="list-style-type: none"> o A demarcated pedestrian crossing at the KwaNonkqubela entrance from the R72, as well as a pedestrian crossing closer to the town of Alexandria. o A 1.5m wide surfaced sidewalk to be provided on the eastern side of Winnie Madikizela Street, spanning the length of the proposed CHC's western border (i.e. frontage). o Formalise the informal pedestrian route from the R72 to Winnie Madikizela Street (shown as option E in the TIA).
<p>The need for the establishment of the Alexandria Community Health Centre – due to pressure on the existing clinic, which has become too small due to increased population size.</p>	<p>The proposed activity entails the development of a CHC, that has a larger capacity to the existing clinics in order to be able to treat more patients.</p>

Environmental Impact Statement

Based on the site visit and the information gathered, potential impacts that are associated with the proposed Alexandria CHC were identified and assessed.

No significantly high negative impacts that would render the application fatally flawed are associated with the preferred development option. Table 3 summarises the predicted impacts by giving their significance rating and the likely duration of the impact **with mitigation measures** in place during the construction and operational phases. The traffic related impact during the planning / design phase is a long term impact that can be mitigated to a low negative impact; and there is no change in status for the no-go alternative for this impact.

The negative impacts identified can be mitigated to a lower negative significance if all mitigation measures identified and as included in the Environmental Management Programme (EMPr) attached in Appendix G are implemented.

No-Go Alternative:

The no-go alternative assumes that the site remains as is i.e. open space in a rural township, which has been transformed by: past and present agricultural practices i.e. clearing for grazing, and continued communal cattle grazing; the presence of a number of invasive alien plant species; illegal dumping, and evidence of past disturbance i.e. overgrown rubble heaps. There is sufficient, alternate grazing land available to the community's cattle owners on the western side of KwaNonkqubela.

The site is categorised in the Addo Biodiversity Sector Plan's (2012) CBA Map as 'No Natural Areas Remaining' – degradation of the site is confirmed by the Vegetation Report (see Appendix D1), which concludes that the site is largely transformed with low biodiversity, and is, therefore, of low conservation value. The stream / drainage area which borders the site is categorised as an Ecological Support Area (Addo BSP, 2012), will not be developed, and will continue to function as an ecological process area.

The No-go alternative holds negative social and socio-economic implications for the town of Alexandria, particularly the immediate poorer township communities it serves (KwaNonkqubela and Wentzel Park), as well as the larger, rural agricultural region of Ndlambe Municipality, and effective health service delivery by the Eastern Cape Department of Health. The human population continues to expand in the Ndlambe Municipality, with the existing clinics already unable to cope with health care service demands.

Table 2: Summary of Impacts (significance with mitigation measures in place)

Impact	Construction phase		Operational Phase	
	No-go	<i>Preferred alternative</i>	No-go	<i>Preferred alternative</i>
Biodiversity	Long term, Low neg.	Long term, Low neg.	Long term, Low neg.	Long term, Very Low neg.
Noise	No change in status	Short term, Very Low neg.	N/A	N/A
Air quality (dust)	No change in status	Short term, Low neg.	N/A	N/A
Soil destabilisation / erosion	No change in status	Short term, Low neg.	N/A	N/A
Surface and groundwater contamination	Long term, Low Neg.	Short term, Very Low neg.	N/A	N/A
Waste management	Long term, Low neg.	Short term, Very Low neg.	Long term, Moderate neg.	Long term Very Low neg.
Heritage Resources (Archaeological and heritage impacts)	No change in status	Permanent Very Low neg.	N/A	N/A
Traffic impacts	No change in status	Short term, Low neg.	No change in status	Long term Low neg.
Visual Impacts	No change in status	Short term, Very Low neg.	No change in status	Long term, Low neg.
Socio-economic impacts: Employment creation	No change in status	Short term, Moderate pos.	No change in status	Long term, Moderate pos.

Impact	Construction phase		Operational Phase	
	No-go	<i>Preferred alternative</i>	No-go	<i>Preferred alternative</i>
Social impacts: Infrastructure & Services	No change in status	Short term Very Low neg	No change in status	Long term Low neg.
Social impacts Health, Safety & Security; Provision of health care services	No change in status	Short term Very Low neg.	Long term, High neg.	Long term, High pos.

Recommendations

CEN IEM Unit recommends that the application be authorised by the DEDEAT, with the following conditions:

1. All mitigation measures listed in this report should be contained in an authorisation.
2. All measures in the Environmental Management Programme (EMPr, Appendix G) are to be implemented.
3. An experienced Environmental Officer is appointed by the Contractor and an experienced independent ECO is appointed by the developer to monitor compliance with the EMPr during construction.
4. Public safety must be prioritised during the construction phase.
5. Local businesses must not be negatively impacted on in construction phase.
6. No activities are to be undertaken within 80m of the stream / drainage line and contamination of the stream / drainage area during the construction phase must be avoided.
7. Traffic recommendations as per the TIA (and included in the mitigation measures) to be implemented

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- Figure 2. Aerial image (Google Earth © 2015, image dated 2012) showing the proposed sites
- Figure 3. Preferred layout and land cover
- Figure 4. Classification of the proposed site i.t.o. sensitivity of the environment, and its conservation priority status
- Figure 5. Vegetation

Appendix B: Photographs

- Figure 1. Google Earth © 2015 image showing points (referred to below) at which site photographs were taken
 - Point 1. Public park / play area adjacent to the site, with planted Yellowwood and Coral Trees.
 - Point 2. Southern border of the site.
 - Point 3. South-eastern section of the site.
 - Point 4. Towards the centre of the site.
 - Illegal dumping and evidence of past disturbance (rubble heaps) towards the centre of the site.
 - Sewage pipeline servitude / pathway that runs along the north / north-eastern border of the site.
 - Point 6. Northern border of the site.

Appendix C: Facility illustration(s)

- Figure 1. Concept plan for the Alexandria Community Health Centre
- Figure 2. Layout of existing bulk service infrastructure
- Figure 3. Civil Engineering Site Works Layout**

Appendix D: Specialist reports

- Appendix D1: Vegetation report
- Appendix D2: Archaeological Heritage report
- Appendix D3: Geotechnical report
- Appendix D4: Infrastructure Site Analysis report **and Preliminary Engineering Services Report**
- Appendix D5: Traffic Impact Assessment**
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Appendix E: Comments and responses report

1. Proof of stakeholder engagement
 - 1.1 Notifications of Draft BAR and Proof of Delivery**
2. Comments and responses to issues raised by stakeholders / I&AP's
3. Copies of correspondence with stakeholders / I&AP's

3.1 Correspondence with stakeholders during the Draft BAR review period

4. Stakeholder / I&AP's Database

5. Minutes of meetings

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

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Appendix G2: Impact Assessment Methodology

Appendix G3: Assumptions, gaps in knowledge

Appendix G4: EAP Details and Experience

Appendix G5: Ndlambe Municipality Confirmation Letter

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