



## BASIC ASSESSMENT REPORT

(For official use only)

File Reference Number:

**EC05/C/LN1&3/M/66-2014**

Application Number:

Date Received:

**Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998(Act No. 107 of 1998), as amended.**

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner (EAP).

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9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.



## SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

	NO
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If YES, please complete form XX for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

### 1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail

#### Introduction

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 in Appendix A). The 21digit Surveyor General code for the property is C00400010000062300000. The boundary co-ordinates of the proposed Alexandria CHC are:

33°39'15.80"S, 26°25'6.78"E  
33°39'13.93"S, 26°25'9.50"E  
33°39'17.21"S, 26°25'15.87"E  
33°39'18.64"S, 26°25'15.49"E  
33°39'20.34"S, 26°25'10.97"E

#### Proposed Activity

The proposed CHC will involve the following:

- a) Construction of the new Alexandria Community Health Centre (building footprint 4491.1 m<sup>2</sup>);
- b) Construction of staff housing (525 m<sup>2</sup>);
- c) Construction of parking bays, access roads, islands and walkways; and a drop-off zone (76 parking bays, 1086m<sup>2</sup>; roads: 924.93m<sup>2</sup>; islands / walkways: 1969.71m<sup>2</sup>);
- 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 320m<sup>3</sup> (288m<sup>3</sup> for four hour fire demand and 23m<sup>3</sup> 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,

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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 (17m<sup>3</sup>/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.

The design / concept plan for the CHC is shown in Figure 1 in Appendix C. The location of existing bulk service infrastructure around the proposed site is shown in Figure 2, and the civil engineering site works layout in Figure 3 in Appendix C.

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.

### **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 2<sup>nd</sup> 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:

- upgrade R72 and main road into KwaNonkqubela into activity corridors;

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- introduce traffic calming measures along R72 corridor to make it more effective, and
- 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 is 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 runs along the north-eastern boundary of the site.

**Listed Activities in terms of the EIA Regulations**

The Minister of Environmental Affairs and Tourism has in terms of sections 24 and 24D of the National Environmental Management 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, the following listed activities (Table 1) 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). Table 1 also includes the relevant activities in terms of the EIA Regulations, 2014, made under Section 24(5) of the Act and published in Government Notice R.983 and R.985 of 2014 in Government Gazette No. 38282 of 4 December 2014.

**Table 1: EIA Listed Activities 2010 and 2014**

Detailed description of listed activities associated with the project:		
EIA Regulations, 2010	EIA Regulations, 2014	Description of project activity that triggers listed activity / Applicability
GN R. 544 Item 11: The construction of: ...	GN R. 983 Item 12: The development of-	Stormwater bulk outlets would be located on the northern and/or north

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<p>(vi) bulk storm water outlet structures; (xi) infrastructure or structures covering 50 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>(vi) bulk storm water outlet structures exceeding 100 square metres in size; (xii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs- (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; - excluding- (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; or (ee) where such development occurs within existing roads or road reserves</p>	<p>eastern side of the site. The sewer pipeline may tie in with the existing sewerage line, located to the north east of the site. The existing sewer line is located further than 32m from a watercourse.  No development setback occurs for the watercourse located on the north eastern side and the 32m would apply.  <i>Activity is no longer applicable</i> as the stormwater bulk outlets and sewer line will be located outside of the 32m threshold from a watercourse.</p>
<p><b>GN R. 544 Item 13:</b> The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres.</p>	<p><b>GN R. 983 Item 14:</b> The development of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.</p>	<p>The proposed facilities include storage of dangerous goods (fuel and gas) and is approximately 24 cubic metres (Gas store = 18m<sup>3</sup> (9m<sup>2</sup>*2m), Garage Store = 6m<sup>3</sup> (3m<sup>2</sup>*2m)).  <i>Activity is no longer applicable</i> as threshold is not exceeded.</p>
<p><b>GN R. 544 Item 23:</b> The transformation of undeveloped, vacant or derelict land to... (ii) residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares;...</p>	<p><b>GN R. 983 Item 28:</b> Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.</p>	<p>The footprint area of the proposed Community Health Centre and associated facilities will be bigger than 1 hectare. However the land is not being used for agriculture or afforestation.  <i>Activity is not applicable</i> due to change in listed activity (specific reference to agriculture or afforestation)</p>
<p><b>GN R. 544 Item 24:</b> The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, at the time of the coming into effect of this Schedule or thereafter such land was zoned open space, conservation or had an equivalent zoning</p>	<p><b>GN R. 983 Item 26:</b> Residential, retail, recreational, tourism, commercial or institutional developments of 1000 square metres or more, on land previously used for mining or heavy industrial purposes.</p>	<p>The proposed Community Health Centre and associated facilities will transform an area bigger than 1 hectare to institutional use from open space. However the land was not previously used for mining or heavy industrial purposes.  <i>Activity is not applicable</i> due to change in listed activity (specific reference to mining or heavy industrial purposes).</p>
<p>No similar listed activity in GN R. 544.</p>	<p><b>GN R. 983 Item 27:</b> The clearance of an area of 1 hectares or more, but less than 20 hectares of</p>	<p>An area of approximately 2.5 hectares will be cleared of vegetation.</p>

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	<p>indigenous vegetation, except where such clearance of indigenous vegetation is required for-</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p><i>Activity is applicable.</i></p>
<p><b>GN R. 546 Activity 2:</b> The construction of reservoirs for bulk water supply with a capacity of more than 250 cubic metres.</p> <p>a) In Eastern Cape, ...</p> <p>iii. Outside urban areas, in:...</p> <p>(dd) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; ...</p> <p>(ff) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve...</p>	<p><b>GN R. 985 Activity 2:</b> The development of reservoirs for bulk water supply with a capacity of more than 250 cubic metres.</p> <p>(b) In Eastern Cape: ...</p> <p>iii. Outside urban areas, in: ...</p> <p>(dd) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; ...</p> <p>(ff) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve...</p>	<p>An elevated water tank <b>is</b> required for the Community Health Centre. <b>The water tank will be under 250 cubic meters.</b></p> <p>Water will be supplied from a network of four (4) existing reservoirs that supply the Kwanonqhubela Township, into an elevated water tank. The elevated water storage tank is estimated to hold approximately 320m<sup>3</sup> in order to cater for the daily usage and fire demand requirements.</p> <p>The site falls within a Critical Biodiversity Area of the Eastern Cape Biodiversity Plan.</p> <p>The site is located within 10 km of the Addo Elephant National Park.</p> <p>Activity is <b>not</b> applicable as the 250 cubic metre capacity is <b>not</b> anticipated to be exceeded.</p>
<p><b>GN R. 546 Item 4:</b> The construction of a road wider than 4 metres with a reserve less than 13,5 metres.</p> <p>(a) In Eastern Cape ...</p> <p>ii. Outside urban areas, in:...</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans...</p> <p>(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve...</p>	<p><b>GN R. 985 Activity 4:</b> The development of a road wider than 4 metres with a reserve less than 13,5 metres</p> <p>(b) In Eastern Cape:</p> <p>ii. Outside urban areas, in:...</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; ...</p> <p>(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas;...</p>	<p>Internal access roads will be approximately 4.5 m wide.</p> <p>The site falls within a Critical Biodiversity Area of the Eastern Cape Biodiversity Plan.</p> <p>The site is located within 10 km of the Addo Elephant National Park.</p> <p><i>Activity is applicable.</i></p>
<p><b>GN R. 546 Item 10:</b> The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not</p>	<p><b>GN R. 985 Activity 10:</b> The development of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.</p>	<p>The proposed facilities include storage of dangerous goods (fuel and gas) and is approximately 24 cubic metres (Gas store = 18m<sup>3</sup> (9m<sup>2</sup>*2m), Garage Store = 6m<sup>3</sup> (3m<sup>2</sup>*2m)).</p> <p><i>Activity is no longer applicable as</i></p>

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<p>exceeding 80 cubic metres. (a) In Eastern Cape ... ii. Outside urban areas, in:.. (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans... (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve...</p>	<p>(b) In Eastern Cape:.. ii. Outside urban areas, in:.. (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;.. (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve;.. (ii) Areas on the watercourse side of the development setback line or within 100 metres from the edge of a watercourse where no such setback line has been determined;...</p>	<p>threshold is not exceeded.</p>
<p><b>GN R. 546 Item 13:</b> The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. (a) Critical biodiversity areas and ecological support areas as identified in systematic biodiversity plans adopted by the competent authority. ... (c) In Eastern Cape... ii. Outside urban areas, the following: ... (ff) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve...</p>	<p><b>GN R. 985 Activity 12:</b> 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. (a) In Eastern Cape: iv. 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.</p>	<p>An area larger than 1 hectare will be cleared of vegetation.</p> <p>The site falls within a Critical Biodiversity Area of the Eastern Cape Biodiversity Plan.</p> <p>The site is located within 10km of the Addo Elephant National Park.</p> <p>The proposed Community Health Centre and associated facilities will clear an area bigger than 300 square meters on land zoned as open space.</p> <p><i>Activity is applicable.</i></p>
<p><b>GN R. 546 Activity 16:</b> The construction of: ... (iv) infrastructure covering 10 square metres or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line. (a) In Eastern Cape, ... ii. Outside urban areas, in: ... (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent</p>	<p><b>GN R. 985 Activity 14:</b> The development of- (vi) bulk storm water outlet structures exceeding 10 square metres in size (xii) infrastructure or structures with a physical footprint of 10 square metres or more where such development occurs ... (c) if no development setback has been adopted, within 32 metres of a watercourse measured from the edge of a watercourse. (c) In Eastern Cape:.. ii. Outside urban areas, in:.. (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or</p>	<p>Stormwater bulk outlets would be located on the northern and/or north eastern side of the site. The sewer pipeline may tie in with the existing sewerage line, located to the north east of the site. The existing sewer line is located further than 32m from a watercourse.</p> <p>No development setback occurs for the watercourse located on the north eastern side and the 32m would apply.</p> <p><i>Activity is no longer applicable</i> as the stormwater bulk outlets and sewer line will be located outside of the 32m</p>

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authority or in bioregional plans; ... (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;	in bioregional plans;... (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve...	threshold from a watercourse.
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**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.

**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.

**2. FEASIBLE AND REASONABLE ALTERNATIVES**

**“alternatives”**, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

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#### **Location alternatives:**

It was established that the Alexandria CHC will be a large structure, due to the requirements of the facility. The suitability of the proposed location alternatives were evaluated mainly through desktop studies, and according to the special requirements of the large CHC and existing standard plans, together with other town planning requirements like parking, coverage and building lines.

Two possible areas were identified for the establishment of the Alexandria Community Health Centre.

Site 1 is located on Erf 1720, KwaNonkqubela Township, Alexandria, Ndlambe Local Municipality; on the western side of the Winnie Madikizela Street at the intersection with the R72. Site 1 has been deemed unsuitable (disadvantages) for the proposed development, due to the steep slope, its corner position, and the fact that it is not large enough to accommodate the building with all of the town planning requirements (Site 1 shown in Figure 2 in Appendix A). The advantage for Site 1 is that it is located at the intersection of the R72 and the Winnie Madikizela Street (main road to KwaNonkqubela).

Site 2 is the preferred location for the Alexandria CHC (shown in Figure 2 in Appendix A), located on Erf 623 in KwaNonkqubela Township, Alexandria, Ndlambe Local Municipality. It is located within 100 m of the existing KwaNonkqubela Clinic, which is still in use and in good condition (disadvantages). Site 2 is also located within 100 m of the main access road to the KwaNonkqubela Township from the R72. The Ndlambe Local Municipality is the landowner at Site 2, and Council Resolution has been requested for the Construction of the Alexandria CHC (advantages).

As Site 1 is not a feasible alternative for the proposed Alexandria CHC, it has not been considered further in the Basic Assessment Report as an Alternative.

It was previously considered to upgrade the existing Kwanonqubela clinic, but the size of adjacent land available would not have been big enough to accommodate all the services provided into the new CHC. As a result, upgrading the existing Kwanonqubela clinic is not a feasible alternative.

#### **Activity alternatives:**

At present, the site is used for communal grazing by the local KwaNonkqubela Township community (disadvantage). Additional and alternative communal grazing land is available on the western side of KwaNonkqubela (advantage), and the removal of cattle will not be an issue. The proposed Alexandria CHC will be fenced upon completion.

The Ndlambe Municipality Local SDF (2012) highlights the importance of developing KwaNonkqubela Township i.t.o. upgrading service infrastructure, preventing the spread of informal settlements into open space areas, expanding public health care facilities due to a growing population, and creating development nodes which are accessible to a largely pedestrian population. Establishment of the proposed Alexandria CHC creates the opportunity to address all the above issues (advantage).

No activity alternatives have been considered as the proposed activity is to provide additional health care services.

#### **Layout alternatives:**

There is one preferred layout alternative – shown in Figure 1 in Appendix C – as per the Architects' concept plan / design, and requirements given to them by the Eastern Cape Department of Health.

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**No-go alternative:**

The no-go alternative assumes that the site remains as is i.e. open space in a rural township, used for 'Intensive Agriculture' (Addo BSP, 2012) – that has been transformed and degraded 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.

Impacts assessed in this BAR will be compared with impacts of the no-go alternative in Section D of this report.

Paragraphs 3 – 13 below should be completed for each alternative.

**3. ACTIVITY POSITION**

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites if applicable.

**Alternative:**

Alternative S1<sup>1</sup> (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

**Latitude (S):**

**Longitude (E):**

Latitude (S)	Longitude (E)
33 ° 39.281' S	26 ° 25.175' E
° ' ° '	° '
° ' ° '	° '

**In the case of linear activities:**

**Alternative:**

Alternative S1 (preferred or only route alternative)

**Internal Access Road to Staff Accommodation**

- Starting point of the activity (Point R1)
- Middle point of the activity (Point R2)
- Turn (Point R3)
- End point of the activity (Point R4)

**Access Entrance from Winnie Madikizela Street**

- Starting point of the activity (Point R5)
- Middle point of the activity (Point R6)
- End point of the activity (Point R7)

**Latitude (S):**

**Longitude (E):**

33° 39.315' S	26° 25.193' E
33° 39.299' S	26° 25.219' E
33° 39.294' S	26° 25.227' E
33° 39.296' S	26° 25.246' E

33° 39.299' S	26° 25.145' E
33° 39.297' S	26° 25.148' E
33° 39.295' S	26° 25.152' E

<sup>1</sup> "Alternative S.." refer to site alternatives.



**Internal Access Road 2**

- Starting point of the activity (Point R8)
- Turn (Point R9)
- Middle point of the activity (Point R10)
- Turn (Point R11)
- Turn (Point R12)
- End point of the activity (Point R13)

33°	39.248' S	26°	25.160' E
33°	39.268' S	26°	25.131' E
33°	39.313' S	26°	25.174' E
33°	39.321' S	26°	25.182' E
33°	39.316' S	26°	25.191' E
33°	39.263' S	26°	25.138' E

Alternative S3 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

o	'	o	'
o	'	o	'
o	'	o	'

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

**4. PHYSICAL SIZE OF THE ACTIVITY**

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

**Alternative:**

- Alternative A1<sup>2</sup> (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

**Size of the activity:**

23 000 m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

or, for linear activities:

**Alternative:**

- Alternative A1 (preferred activity alternative)  
Access Road to Staff Accommodation, Internal Access Road and Access Entrance from Winnie Madikizela Street
- Alternative A2 (if any)
- Alternative A3 (if any)

**Length of the activity:**

525m (16m + 114m + 395m)
m
m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

**Alternative:**

- Alternative A1 (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

Portion of Erf for  
CHC

**Size of the site/servitude:**

33 759.9 m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

<sup>2</sup> "Alternative A.." refer to activity, process, technology or other alternatives.



## 5. SITE ACCESS

Does ready access to the site exist?

YES	
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

The site is located along and directly to the east of Winnie Madikizela Street, from which it can be accessed. The proposed access (entrance) road off Winnie Madikizela Street is indicated in Figure 3 in Appendix A and in Appendix C.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

## 6. SITE OR ROUTE PLAN

See Appendix A.

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - rivers;
  - the 1:100 year flood line (where available or where it is required by DWA);
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.10 the positions from where photographs of the site were taken.

## 7. SITE PHOTOGRAPHS

See Appendix B.

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Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

## 8. FACILITY ILLUSTRATION

See Appendix C.

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

## 9. ACTIVITY MOTIVATION

### 9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R 66 379 631.00

What is the expected yearly income that will be generated by or as a result of the activity?

R Nil  
(Community Health Centre)

Will the activity contribute to service infrastructure?

NO

Is the activity a public amenity?

YES

How many new employment opportunities will be created in the development phase of the activity?

130

What is the expected value of the employment opportunities during the development phase?

Approximately  
R3 million

What percentage of this will accrue to previously disadvantaged individuals?

100%

How many permanent new employment opportunities will be created during the operational phase of the activity?

30

What is the expected current value of the employment opportunities during the first 10 years?

R 7 million

What percentage of this will accrue to previously disadvantaged individuals?

75%

### 9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

The Eastern Cape Department of Health is intensifying its decentralization of Healthcare care services to the communities by building new clinics and improving the existing infrastructure. The Department of Health's mission is "To improve health status through the prevention of illnesses and the promotion of healthy lifestyles and to consistently improve the healthcare delivery system by focusing on access, equity, efficiency, quality and sustainability" ([www.health.gov.za](http://www.health.gov.za)).

The Sub-district strives to establish a Community Health Centre at Alexandria for the provision of Primary Health Care to the community. The absence of a fully functional Community Health Centre puts a strain on the Referral System for continuum of care of patients.

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The KwaNonkqubela and Wentzel Park clinics are situated 65 km from the next referral hospital which is 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, as 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 (KwaNonkqubela and Wentzel Park clinics) to one facility as the 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.

The Ndlambe Municipality 2<sup>nd</sup> Draft Local SDF (2012) highlights the importance of developing KwaNonkqubela Township i.t.o. upgrading service infrastructure, preventing the spread of informal settlements into open space areas, expanding public health care facilities due to a growing population, and creating development nodes which are accessible to a largely pedestrian population. Establishment of the proposed Alexandria CHC creates the opportunity to address all the above issues.

Indicate any benefits that the activity will have for society in general:

The contribution to overall public health infrastructure, particularly in rural areas.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

A CHC with overnight facilities for patients from faraway areas, and the provision of additional health care facilities not currently being provided by the two clinics.

## 10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management Act (Act 107 of 1998)	Department of Economic Development, Environmental Affairs & Tourism (DEDEAT)	1998
National Environmental Management Act: Biodiversity Act (Act 10 of 2004)	DEDEAT	2004
Environmental Conservation Act (Act 73 of 1989)	DEDEAT	1989
Nature and Environmental Conservation Ordinance No 19 of 1974	DEDEAT	1974
National Water Act (Act 36 of 1998)	Department of Water and Sanitation (DWS)	1998

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National Heritage Resources Act (Act 25 of 1999)	South African Heritage Resource Agency (SAHRA) Eastern Cape Provincial Heritage Resources Authority (ECPHRA)	1999
Environmental Impact Assessment Regulations	DEDEAT	2010, 2014
Eastern Cape Biodiversity Conservation Plan	DEDEAT	2007
Ndlambe Municipality 2 <sup>nd</sup> Draft Spatial Development Framework	Ndlambe Local Municipality	2012
Addo Biodiversity Sector Plan	DEA, DEDEAT	2012
National Environmental Management: Waste Act (Act 59 of 2008)	DEA, DEDEAT	2008
Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985)	Ndlambe Local Municipality	1985
Guideline 5: Companion to the Environmental Impact Assessment Regulations, 2010. Integrated Environmental Management Guideline Series, Department of Environmental Affairs (DEA), Pretoria	DEDEAT	2010
Guideline 7: Public Participation in the EIA Process. Integrated Environmental Management Guideline Series, Department of Environmental Affairs (DEA), Pretoria	DEDEAT	2010

## 11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### 11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	
Undetermined	

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Construction solid waste will be stored temporarily in bins and/or skips; removed from site by the appointed contractor with the use of trucks, and disposed of at the nearest waste disposal site. Where possible, excavated material or inert construction waste material to be used as fill material.

Where will the construction solid waste be disposed of (describe)?

Construction solid waste will be stored temporarily in bins and/or skips, removed from site by the appointed contractor, and disposed of at the nearest waste disposal site. Solid waste that cannot be reused or recycled will be disposed of (within 14 days) at the closest licensed waste disposal (landfill) site.

Will the activity produce solid waste during its operational phase?

YES	
Undetermined	

If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

Solid waste i.e. general waste, will be stored temporarily in bins; collected weekly by the local municipal waste service, and disposed of at the nearest licensed waste disposal site.

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Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Hazardous medical waste will be collected by a registered waste transporter and disposed of at a licenced hazardous disposal site.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? 

YES	
-----	--

If yes, inform the competent authority and request a change to an application for scoping and EIA. The proposed Alexandria CHC will produce hazardous medical waste. However the proposed Alexandria CHC will not incinerate, treat or dispose of the hazardous medical waste on site.

The storage capacity for hazardous waste is approximately 20m<sup>3</sup>, and will be stored in specific areas within the proposed Alexandria CHC. In the event that the storage capacity is expanded to 80m<sup>3</sup> or more, then the Norms and Standards for Storage of Waste, 2013 would be applicable. As a result a Scoping and EIA is not required.

Is the activity that is being applied for a solid waste handling or treatment facility? 

	NO
--	----

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

### 11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? 

	NO
--	----

Sewage from the proposed CHC will connect to the existing municipal sewer, at one point, per Appendix C. The bulk sewer lines will be 110mm diameter, and the portion located outside of the CHC area is approximately 70m in length .

If yes, what estimated quantity will be produced per month?

m <sup>3</sup>	
	NO

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility? 

	NO
--	----

If yes, provide the particulars of the facility:

Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:	Cell:	
E-mail:	Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

None – it is unsafe to recycle waste water from a medical facility (due to the presence of water-borne diseases, etc.)

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**11(c) Emissions into the atmosphere**

Will the activity release emissions into the atmosphere?

YES	<input type="checkbox"/>
YES	<input type="checkbox"/>

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

The National Dust Control Regulations of 1 November 2013, prescribe acceptable dustfall rates for activities generating dust. The construction phase will create a limited amount of dust pollution e.g. dust off temporary materials stockpiles (building sand, gravel, etc.). Mitigation measures are given in Section D to limit the occurrence and impacts of dust pollution during the construction phase.

Dust levels are not to exceed 1200mg/m<sup>2</sup>/day (30 day average) for industrial and rural areas (non-residential areas). In residential areas, dust is not to exceed 600mg/m<sup>2</sup>/day (30 day average).

The proposed facilities for the storage of dangerous goods (fuel and potentially gas) will not exceed a combined capacity of 500m<sup>3</sup> and as such would not require an air emissions licence.

Standard emissions from vehicles and generators will be at low levels during construction and operational phases.

**11(d) Generation of noise**

Will the activity generate noise?

YES	<input type="checkbox"/>
	NO <input type="checkbox"/>

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

The activity will generate noise during the construction phase of the type and level generated by an active construction site. Mitigation measures are given in Section D to limit the impacts of noise pollution during the construction phase.

No high noise levels would be generated during the operational phase.

**12. WATER USE**

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

Municipal ✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Water will be supplied from a network of four (4) existing reservoirs that supply the Kwanonqhubela Township, into an elevated water tank. The elevated water storage tank is estimated to hold approximately 320m<sup>3</sup> in order to cater for the daily usage and fire demand requirements. The total water demand for the proposed CHC is estimated at 22.45m<sup>3</sup>/day and the fire demand / fire flow is 20l/second with an allowance of four (4) hours (calculated to be 288m<sup>3</sup>). The Ndlambe Local Municipality has indicated (letter dated 30 January 2015) the present water supply quantity to Alexandria is insufficient to meet the demand, and that this shortfall is being addressed through the implementation of the Amatola Water Board Quick Win Project scheduled for completion at the end of March 2015. It stands to reason that with the proposed water storage tank and completion of the Amatola Water Board's project, that there will be a sufficient supply of water during operations.

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

Does the activity require a water use permit from the Department of Water Affairs?

litres	
	NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

### 13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The design is done to allow for optimal natural lighting and ventilation, and solar power will be utilized by means of solar panels.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Solar panels will be used, where possible.



## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

### Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.   
(e.g. A):

- Paragraphs 1 – 6 below must be completed for each alternative.

- Has a specialist been consulted to assist with the completion of this section?

If YES, please complete form XX for each specialist thus appointed:  
All specialist reports must be contained in Appendix D.

### 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

#### Alternative S1:

Flat	1:50 1:20	–					
------	--------------	---	--	--	--	--	--

#### Alternative S2 (if any):

Flat	1:50 1:20	–	1:20 1:15	–	1:15 – 1:10	1:10 1:7,5	–	1:7,5 – 1:5	Steeper than 1:5
------	--------------	---	--------------	---	-------------	---------------	---	-------------	---------------------

#### Alternative S3 (if any):

Flat	1:50 1:20	–	1:20 1:15	–	1:15 – 1:10	1:10 1:7,5	–	1:7,5 – 1:5	Steeper than 1:5
------	--------------	---	--------------	---	-------------	---------------	---	-------------	---------------------

### 2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain
- 2.4 Closed valley
- 2.5 Open valley
- 2.6 Plain
- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

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### 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	NO	YES NO	YES NO
Dolomite, sinkhole or doline areas	NO	YES NO	YES NO
Seasonally wet soils (often close to water bodies)	YES, only at the storm water outlet.	YES NO	YES NO
Unstable rocky slopes or steep slopes with loose soil	NO	YES NO	YES NO
Dispersive soils (soils that dissolve in water)	NO	YES NO	YES NO
Soils with high clay content (clay fraction more than 40%)	NO	YES NO	YES NO
Any other unstable soil or geological feature	NO	YES NO	YES NO
An area sensitive to erosion	YES	YES NO	YES NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

### 4. GROUNDCOVER

Indicate the types of groundcover present on the site:

- 4.1 Natural veld – good condition <sup>E</sup>
- 4.2 Natural veld – scattered aliens <sup>E</sup>
- 4.3 Natural veld with heavy alien infestation <sup>E</sup>
- 4.4 Veld dominated by alien species <sup>E</sup>
- 4.5 Gardens
- 4.6 Sport field
- 4.7 Cultivated land
- 4.8 Paved surface
- 4.9 Building or other structure
- 4.10 Bare soil

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

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	Natural veld with scattered aliens <sup>E</sup>			Gardens
				Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

**See Appendix D1: Vegetation report.**

## 5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area (Site is situated on land that is used for communal grazing, at present. Cattle will be moved to a different grazing area, on the western side of the township, before development starts.)

5.2 Low density residential

5.3 Medium density residential

5.4 High density residential (The site is situated just east of KwaNonkqubela Township.)

5.5 Informal residential

5.6 Retail commercial & warehousing (There are businesses and spaza shops in KwaNonkqubela Township, and towards the west in the Alexandria CBD.)

5.7 Light industrial

5.8 Medium industrial <sup>AN</sup>

5.9 Heavy industrial <sup>AN</sup>

5.10 Power station

5.11 Office/consulting room

5.12 Military or police base/station/compound

5.13 Spoil heap or slimes dam<sup>A</sup>

5.14 Quarry, sand or borrow pit

5.15 Dam or reservoir

5.16 Hospital/medical centre (The existing KwaNonkqubela Clinic is located to the south-east of the site, and the existing Wentzel Park Clinic is located to the north-west of the site, north of the R72. These two facilities will be consolidated into the new Alexandria Community Health Centre.)

5.17 School (There is a pre-school, primary school(s) and a secondary school in the Wentzel Park and KwaNonkqubela Township areas.)

5.18 Tertiary education facility

5.19 Church

5.20 Old age home

5.21 Sewage treatment plant<sup>A</sup>

5.22 Train station or shunting yard <sup>N</sup>

5.23 Railway line <sup>N</sup>

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- 5.24 Major road (4 lanes or more)<sup>N</sup>
- 5.25 Airport<sup>N</sup>
- 5.26 Harbour
- 5.27 Sport facilities (The schools have sport facilities. There is also a public park / play area with planted trees directly to the south-east of the site.)
- 5.28 Golf course
- 5.29 Polo fields
- 5.30 Filling station<sup>H</sup>
- 5.31 Landfill or waste treatment site
- 5.32 Plantation
- 5.33 Agriculture
- 5.34 River, stream or wetland (The border of the site is located more than 80 m from the centre line of the non-perennial stream / drainage line, which runs along the north-eastern boundary of the site.)
- 5.35 Nature conservation area
- 5.36 Mountain, koppie or ridge
- 5.37 Museum
- 5.38 Historical building
- 5.39 Protected Area
- 5.40 Graveyard (Graveyard located to the south-east, at the very edge of the 500 m radius from the site – will not be impacted by the development.)
- 5.41 Archaeological site
- 5.42 Other land uses (describe)

If any of the boxes marked with an “N” are ticked, how will this impact / be impacted upon by the proposed activity.

If any of the boxes marked with an “An” are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

If YES, specify:

If any of the boxes marked with an “H” are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

If YES, specify:

## 6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including

Archaeological or palaeontological sites, on or close (within 20m) to the site?

If YES, explain:

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

	NO
--	----

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Briefly explain the findings of the specialist:

Ms Celeste Booth did a survey of the site – the site has been exempted from requiring a full phase 1 archaeological impact assessment (See Appendix D2). She found that ‘no archaeological heritage remains, features, or sites were documented within the proposed area for the development’.

She also advises that archaeological ‘sites and materials may be covered by soil and vegetation and will only be located once this has been removed. In the unlikely event of such finds being uncovered, (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed’.

Will any building or structure older than 60 years be affected in any way?

	NO
--	----

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

	NO
--	----

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.



## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
  - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  - (v) the municipality which has jurisdiction in the area;
  - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
  - (i) one local newspaper; or
  - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper 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: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  - (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.



Notifications, including the Background Information Document (BID), were sent to I&APs to notify them of the proposed project. These were distributed on 19 November 2014.

Name	Organisation
Richard Smith	EC DOH
Chandu Patel	Coega
Siphiwe Ntombela	Coega
Xabiso Sidloyi	ArchWorXS
Inke Wehnert	ArchWorXS
Pamela Mangezi	Hemsley & Myrdal Land Surveyors
A. Struwig	DEDEAT
D. Govender	DEDEAT
L. Fourie	DWS
M. Bloem	DWS
S. Mokhanya	ECPHRA
T. Nokoyo	DAFF
A. Collet	DAFF / NDA
M. Keyser	DRPW
R. Dumezweni	Ndlambe Local Municipality / Landowner / Adjacent Landowner
Xolani Masiza	Ndlambe Local Municipality
Nombulelo Booyesen-Willy	Ndlambe Local Municipality
B Makedama	Sarah Baartman/Cacadu District Municipality
T Pillay	Sarah Baartman/Cacadu District Municipality
S Harrington	Sarah Baartman/Cacadu District Municipality
P Kate	Sarah Baartman/Cacadu District Municipality
M. Sitole	Eskom
J. Geeringh	Eskom
M Mateti	Ndlambe Ward 1 Councillor
C Metelerkamp	Ndlambe Ward 2 Councillor
M. Griffiths	WESSA
S. Matthews	Agriec
BM MCNAMARA	Landowners / Adjacent IAPs (Farm 241 Portion 16)

A focus group meeting was held with the ward councillor. Please refer to Appendix E for a copy of the minutes.



Publication	Publication Date
DBOOS ( Die Burger Oos )	19/11/2014

**KENNISGEWING VAN BASIESE EVALUASIE/PROSES**

**VOORGESTELDE KWANONKQUBELA, ALEXANDRIA GEMEENSKAPSGEONDEHEIDSENTRUM OP ERF 623 ALEXANDRIA, NDLAMBE PLAASLIKE MUNISIPALITEIT, OOS-KAAP**

Kennel geask hennee dat die Oos-Kaapse Geondheidsdepartement aansoek gedoen het vir 'n Ongewingsamtyg vir die voorgestelde Kwanonkqubela/Alexandria gemeenskapsgesondheidsentrum op Erf 623 Alexandria. Hierdie aansoek is gedoen kragtens aktiwiteit 6 gelys in Statistiese gewingsregulasie (GNR) 544 en 546 van 2010 (soos gewys), gepubliseer kragtens die Wet op Nasionale Ongewingsamtyg, 1998 (Wet nr. 107 van 1998) soos gewysig (NEMA). Die aansoek is by die Oos-Kaapse Provinsiale Departement van Ekonomiese Ontwikkeling, Ongewingsake en Toerisme ingedien.

**APPLICANT:** Oos-Kaapse Geondheidsdepartement

**VOORGESTELDE AKTIVITEIT:** Die voorgestelde projek behels 'n nuwe Gemeenskapsgesondheidsentrum (CHC) in Alexandria op Erf 623, Ndlambe Plaaslike Munisipaliteit, 'n Nuwe CHC (4492 m<sup>2</sup>), akkommodasie (300 m<sup>2</sup>), parkeerplekke, boegroep en 'n afsonderlike gebou vir Kwa-Nonkqubela en Wentzel Park klinieke is 65 km vanaf die volgende veringshoofstad, die Port Alfred Hospitaal, gebou. Die Alexandria gebied is 'n baie groot, landlike plaasgebied en gans aan die Nanga-gebied, wat 'n baie klein omgewingskeel het wat dit met die Port Alfred/Alexandria, Grahamstad, Cradock en Port Elizabeth routes. Beide klinieke bied 'n omvattende primêre gesondheidsorgiens, en is 1 km uitmekaar.

Die voorneme is om die twee fasiliteite (d.w.s. Kwa-Nonkqubela en Wentzel Park klinieke) in een fasiliteit te integreer as die voorgestelde Alexandria gemeenskapsgesondheidsentrum (CHC) met 'n komponent van eerste-vlak-diens (in kliniek) en die CHC wat 'n omvattende CHC Primêre Gesondheidsorgiens-fasiliteit bied.

**TPEVALUASIE:** 'n Basiese Evaluasie word versk, soos voorgeskryf in die NEMA Ongewingsamtyg-regulasie in GNR 543 van 2010.

**OMGEWINGSOWERHEID:** Oos-Kaapse Provinsiale Departement van Ekonomiese Ontwikkeling, Ongewingsake en Toerisme (DEDEAT).

**LIGGING:** Die voorgestelde CHC-terrein is op Erf 623 Alexandria in die Ndlambe Plaaslike Munisipaliteit, Oos-Kaap geleë ongeveer 105 km vanaf Port Elizabeth en 30 km vanaf Port Alfred. Die geografiese koördinate is 33°39'17.65"S en 26°25'10.56"E.

**OMGEWINGSKONSULTANT:** CEN Integrated Environmental Management Unit, Dr Mike Cohen, Rivierveg 36, Walmer, Port Elizabeth, 6070. Telefoon: 041 581 2983 / Faks: 086 504 2549. E-pos: [steembok@aerosat.co.za](mailto:steembok@aerosat.co.za)

**REGISTRASIE VAN BELANGSTELLLENDE EN GEAFFEKTEERDE PARTYE:** Belangstellige en Geaffekteerde Partye word genooi om aan die proses deel te neem deur te registreer en gedetailleerde gestreke kommentaar binne 30 dae (openbare verlanende entydperk tussen 15 Desember en 2 Januarie) te gee vir hierdie kennisgewing (d.w.s. teen 8 Januarie 2015) aan die bostaande kontakbesonderhede in die agtergrond-inligtingdokumente met bykomende inligting oor die voorgestelde aktiwiteit te beskikbaar. Voorstel aan CEN IEM Unit van 'n e-posadres, faksnommer of posadres.

**Datum van kennisgewing:** 19 November 2014

**THE HERALD 19/11/14**

**NOTICE OF BASIC ASSESSMENT PROCESS PROPOSED KWANONKQUBELA / ALEXANDRIA COMMUNITY HEALTH CENTRE ON ERF 623, ALEXANDRIA, NDLAMBE LOCAL MUNICIPALITY, EASTERN CAPE**

Notice is hereby given that the Eastern Cape Department of Health has applied for an Environmental Authorisation for the Kwanonkqubela / Alexandria Community Health Centre on Erf 623, Alexandria.

This application is done in terms of activities listed in Government Notice Regulation (GNR) 544 and 546 of 2010 (as amended), published in terms of National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended (NEMA). The application form has been submitted to the Eastern Cape Provincial Department of Economic Development, Environmental Affairs and Tourism.

**APPLICATION:** Eastern Cape Department of Health

**PROPOSED ACTIVITY:** The proposed project entails a new Community Health Clinic (CHC) in Alexandria on Erf 623, Ndlambe Local Municipality. It is proposed to construct a new CHC (4492m<sup>2</sup>) accommodation (300m<sup>2</sup>), parking bays, access roads and a drop-off zone. Kwa-Nonkqubela and Wentzel Park clinics are situated 65km 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 Nanga area which is a high accident area where it crosses Port Alfred / Alexandria, Grahamstown, Cradock and Port Elizabeth routes. Both clinics provide a comprehensive primary health care service, and are 1km apart. The intention is to integrate the two facilities (i.e. Kwa-Nonkqubela 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.

**TYPE OF ASSESSMENT:** A Basic Assessment is required, as prescribed in the NEMA Environmental Impact Assessment Regulations in GNR 543 of 2010.

**ENVIRONMENTAL AUTHORITY:** Eastern Cape Provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).

**LOCALITY:** The proposed CHC site is located on Erf 623, Alexandria in the Ndlambe Local Municipality, Eastern Cape, approximately 105 km from Port Elizabeth and 50 km to Port Alfred. The geographic co-ordinates are 33°39'17.65"S and 26°25'10.56"E.

**ENVIRONMENTAL CONSULTANT:** CEN Integrated Environmental management Unit, Dr Mike Cohen, 36 River Road, Walmer, Port Elizabeth, 6070. Telephone: 041 581 2983, Fax: 086 504 2549. Email: [steembok@aerosat.co.za](mailto:steembok@aerosat.co.za)

**REGISTRATION OF INTERESTED AND AFFECTED PARTIES:** Interested and Affected Parties are invited to participate in the process by registering and submitting detailed written comment within 30 days (excluding public holidays and period between 15 December and 2 January) of this notice (i.e. by 8 January 2015), to the contact details above. Background Information Documents are available with additional information on the proposed activity. Please provide CEN IEM Unit with either an email address, fax number or postal address.

**THE HERALD 19/11/14**

**ISAZISO NGENKQUBO YOPHANDO OLUKHAWULEZILEYO**

**NGELISACETYWAYO IZIKO LEZEMPILO LOMPHAKATHI WAKWANONKQUBELA / NE-ALEXANDRIA (MNYAMENI) KWINDAWO EYI ERF 623, E-ALEXANDRIA, KUMASPALA INDLAMBE, KWIPHONDO LEMPUMA KOLONI**

Oku kukwazisa ukuba iSebe leZempilo lweMpuma Koloni lwenze isicelo Semvume kwezeNdalo soku-ba licaba ulwakhiwo lweziko leZempilo yomphakathi woku-Nonkqubela nase Alexandria kumhlaba oyi Erf 623 e-Alexandria. Esi sicelo senziwe ngaphantsi kwemamba eyaziwa kwisazisi Migago kaRhulumente (Government Notice Regulation) GNR 544 no 546 ka 2010 (elungiswe), epapashwe ngokoMithetho-ikelele Clawula ezeNdalo i Nasiona Environmental Management Act, 1998 (Act 107 of 1998) ilungiswe (NEMA). Isicelo esi singenise kwiSebe lweMpuma Koloni lwezoLawulo kwiCandelo lezoQoqosho, Imicimbi YezeNdalo kunye noKhenketho (Eastern Cape Provincial Department of Economic Development, Environmental Affairs and Tourism).

**UMFAKI SICELO:** LiSebe leZempilo KwMpuma Koloni

**ULWAKHIWO OLUCETYWAYO:** Ulwakhiwo olucetywayo lubandakanya iziko leZempilo yomphakathi (Community Health Clinic) e-Alexandria kwi Erf 623 kumasपाला weNdlambe. Ulwakhiwo olucetywayo lubandakanya isakhiwo esitha esi-Kinki ebubukhulu obuyi 4492 yezakwene zemitha (4492 m<sup>2</sup>), indawo yokuhlala ebubukhulu obuyi 300 yezakwene zemitha (300 m<sup>2</sup>), indawo yokumisa yezintuthi, indlela zokungena ezivulekileyo kwakunye nendawo yokwelalisa abantu unziwazana (drop off zone). Ikliniki yakwaNonkqubela nase Wentzel Park zikungama ngama 65km ubukude bazo xa uhlelekisa neshibhedlele apho bangathuyelwa khona abantu esise Cawe (Port Alfred Hospital). Isithi sase-Alexandria sitha gabalala kwaye siquka amaphandela nendawo eyaziwa ngamaNanga eyoye yeendawo ezithaxwa zingqozi zezintuthi, ingakumbi apho kunqumlezwa khona indlela eziza eCawe/Mnyameni, eRhini, eKalaharwe nase Bheji. Zombini ezikliniki esezikhankanywe zinkozo ngenkonzo zempi ezipheleleyo (comprehensive health care), kwaye zikumama oyi 1km enye kweyeyi Ezona njongo kukudibanisa lamaziko mabini zempi (Nonkqubela kwakunye ne Wentzel kinki) ukuze zibe-likwile olucetywayo iziko leZempilo Yomphakathi / Alexandria (Alexandria Community Health Care Centre) elizakuthi libanamacandelo amabini, elokuqala libekezwe ngenkonzo yonyango olusisako lokuqala (kinki), lize elisibini libekezwe ngenkonzo eziqoka okunzini eziKwizibakala eI-Phezulu (Comprehensive Primary Health Care Core Package).

**UHLULO LWEZOPHANDO** LuPhando oluKhawulezayo (Basic Assessment) olulandela lenziwe, ngokwesigunyaziso soMithetho olawula ezeNdalo ngaphantsi kwesigunyaziso u GNR 543 ka 2010.

**ISEBE ELISEMAGUNYENI** LiSebe lweMpuma Koloni lwezoLawulo kwiCandelo lezoQoqosho, Imicimbi YezeNdalo kunye noKhenketho (DEDEAT)

**INDAWO YOLWAKHIWO** Ulwakhiwo olucetywayo leZempilo yomphakathi (Community Health Clinic) lukumhlaba oyi Erf 623, e-Alexandria, kuMasपाला weNdlambe, kwMpuma Koloni, ekumyinge oyi 105 yeeKilomita (kms) ukusuka eBheji, ize ibangama 50 eekilomita (kms) ukusuka eCawe. Ngokwezichazindawo nakasana zalamasaxha (GPS Coordinates) ziyi: 33°39'17.65"S and 26°25'10.56"E.

**INKAMPANI ENIKEZELA NGENKONZO YOLUPHANDO** CEN Integrated Environmental Management Unit, Dr Mike Cohen, 36 River Road, Walmer, Port Elizabeth, 6070; Telephone: (041) 581 2983 / Fax: 086 504 2549. E-mail: [steembok@aerosat.co.za](mailto:steembok@aerosat.co.za)

**UMHLALISO LWABANOMDLA NABACHATSHAZELWA YILENKQUBO** Nabanina onomdla okanye ochatshazelwa yilenkqubo ucelwa kwaye egunyaziswa ukuba abalise iingcukacha zakhe ngokupheleleyo kungakapheli iintsuku ezingamshumi amathathu (30 days) (ngaphandle kweentsuku kwelidlo) zolupapasho (i.e. by 8 January 2015), kule dilisi ingentla. Ingxelo malunga nolwakhiwo lucetywayo nazinye iingcukacha ziyafumaneka ngokuthi umntu anikezwe kwinkqanani yakwa CEN IEM Unit ngezakhe iingcukacha eziqoka nokuba yidilesi ye-email, inombolo ye tele okanye iilesi yeposi.

Figure 1. Advertisements placed in *The Herald* (19/11/2014) in English and in isiXhosa, and in *Die Burger (Oos)* (19/11/2014) in Afrikaans.

## 2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
  - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
  - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;

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- (iii) the nature and location of the activity to which the application relates;
- (iv) where further information on the application or activity can be obtained; and
- (iv) the manner in which and the person to whom representations in respect of the application may be made.

**NOTICE OF BASIC ASSESSMENT PROCESS**

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

Notice is hereby given that the **Eastern Cape Department of Health** has applied for an Environmental Authorisation for the **proposed Kwanonkqubela / Alexandria Community Health Centre on Erf 623, Alexandria**. This application is done in terms of activities listed in Government Notice Regulation (GNR) 544 and 546 of 2010 (as amended), published in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended (NEMA). The application form has been submitted to the Eastern Cape Provincial **Department of Economic Development, Environmental Affairs and Tourism**.

**APPLICANT:** Eastern Cape Department of Health

**PROPOSED ACTIVITY:**  
The proposed project entails a new Community Health Clinic (CHC) in Alexandria on Erf 623, Ndlambe Local Municipality. It is proposed to construct a new CHC (4492 m<sup>2</sup>), accommodation (300 m<sup>2</sup>), parking bays, access roads and a drop-off zone. Kwa-Nonkqubela and Wentzel Park clinics are situated 65km 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 Port Alfred /Alexandria, Grahamstown, Cradock and Port Elizabeth routes. Both clinics provide a comprehensive primary health care service, and are 1km apart. The intention is to integrate the two facilities (i.e. Kwa-Nonkqubela 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.

**TYPE OF ASSESSMENT:**  
A Basic Assessment is required, as prescribed in the NEMA Environmental Impact Assessment Regulations in GNR 543 of 2010.

**ENVIRONMENTAL AUTHORITY:**  
Eastern Cape Provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)

**LOCALITY:**  
The proposed CHC site is located on Erf 623, Alexandria in the Ndlambe Local Municipality, Eastern Cape; approximately 105km from Port Elizabeth and 50 km to Port Alfred. The geographic co-ordinates: 33°39'17.65"S and 26°25'10.56"E.

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Dr Mike Cohen  
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Telephone: (041) 581 2983 / Fax: 086 504 2549  
E-mail: [steenbok@aerosat.co.za](mailto:steenbok@aerosat.co.za)

**REGISTRATION OF INTERESTED AND AFFECTED PARTIES:**  
Interested and Affected Parties are invited to participate in the process by registering and submitting detailed written comment within 30 days (excluding public holidays) of this notice, to the contact details above. Background Information Documents are available with additional information on the proposed activity. Please provide CEN IEM Unit with either an email address, fax number or postal address.

**Date of Notice: 19 November 2014**

Figure 2. Copy of Site Notice, in English.



Figure 3. Site Notice, in English, posted on the fence bordering the site.

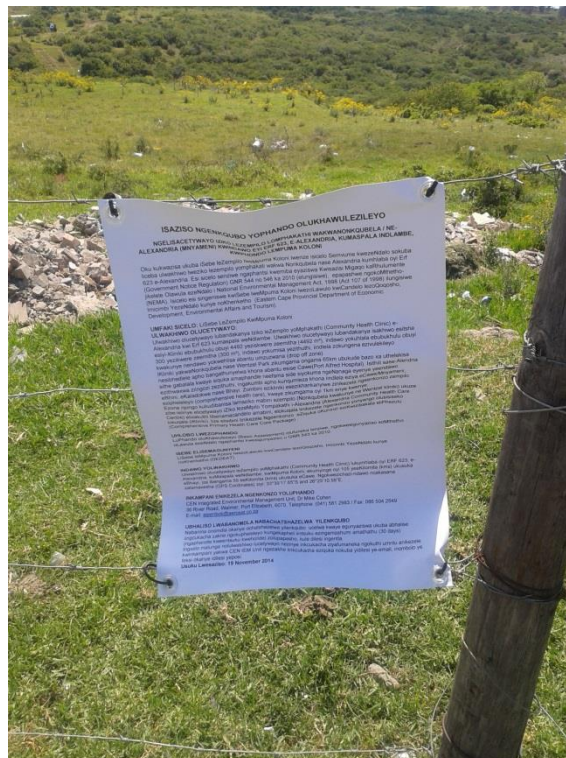


Figure 4. Site Notice, in isiXhosa, posted on the fence bordering the site.

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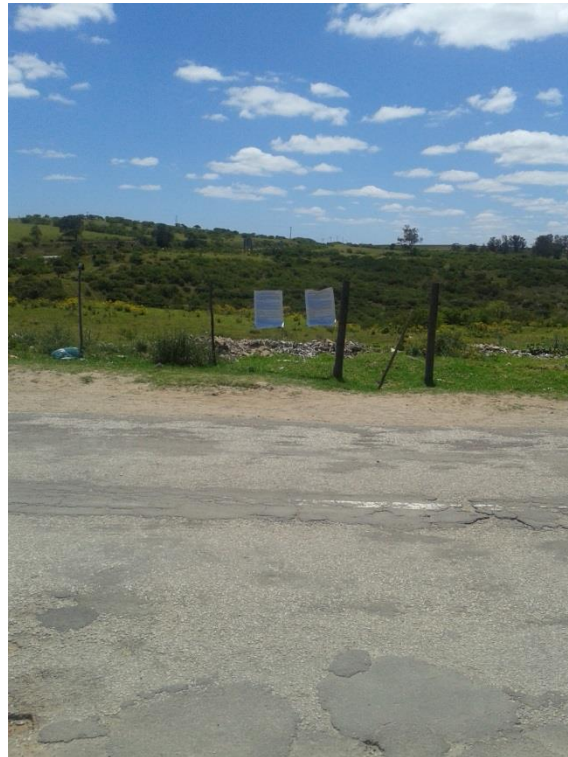


Figure 5. English and isiXhosa site notices posted on the fence along the western border of the site, off Winnie Madikizela Street.



Figure 6. Aerial View of Position of Site Notices and Proposed Alexandria CHC (Google Earth imagery dated 25/04/2012)

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### 3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

### 4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

### 5. COMMENTS AND RESPONSE REPORT

[See Appendix E.](#)

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

### 6. AUTHORITY PARTICIPATION

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

List of authorities informed:

Department of Economic Development, Environmental Affairs and Tourism Eastern Cape Provincial Heritage Resources Authority South African Heritage Resources Agency Eastern Cape Department of Health Department of Water and Sanitation (previously the Department of Water Affairs) Department of Agriculture, Forestry and Fisheries National Department of Agriculture
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Department of Roads and Public Works  
Eskom  
Agri Eastern Cape  
WESSA  
Sarah Baartman / Cacadu District Municipality  
Ndlambe Local Municipality  
Ndlambe Ward 1 Councillor  
Ndlambe Ward 2 Councillor

List of authorities from whom comments have been received:

Department of Agriculture, Forestry and Fisheries (Thabo Nokoyo)  
Ndlambe Ward 1 Councillor (Monica Mateti)

## 7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES

If “YES”, briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application – **See Appendix E for verbatim copies of correspondence:**

- DAFF (Thabo Nokoyo) – There is no forest vegetation present on site. He has no objections to the development.
- Ndlambe Ward 1 Councillor (Monica Mateti) – Ms Mateti indicated that although the community members are currently using the proposed site as a commonage for cattle grazing, there is an additional commonage in close proximity to the site. As a result there would be no issues for utilising the site for a clinic. Ms Mateti indicated that there has been an increase in the community members. The current clinic is now too small to handle the increased population size and health care required. The proposed clinic will be welcomed in the community. Registered as an I&AP.
- Hemsley & Myrdal Land Surveyors (Pamela Mangezi) – No comment as yet. Registered as an I&AP.
- Brent McNamara – Mr McNamara is concerned with the safety of pedestrians (and vehicles) visiting the proposed clinic i.e. traffic calming measures on the R72 turnoff, at the proposed entrance to the clinic off Winnie Madikizela Street, and the pathways that pedestrians use, particularly when coming from the Wentzel Park side. Registered as an I&AP.
- DEDEAT (A Struwig) – Clarification if a copy of the notification for the availability of the Draft BAR was sent to the case officer.
- DWS – Requested extension to 31 March 2015 to comment on the Draft BAR.



## SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

- Forest vegetation
- The commonage is used for cattle grazing.
- 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.
- Traffic calming measures and speed limitations on the R72 turnoff into Winnie Madikizela Street / KwaNonkqubela Township.
- Traffic calming measures in front of proposed clinic, on Winnie Madikizela Street.
- The urgent want and 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.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

- Planted specimens of *Podocarpus falcatus* (Outeniqua Yellowwood) are on site, as well as planted specimens of *Erythrina caffra* (Coral Tree). No natural forest areas are located on site.
- The community will be informed prior to construction commencing regarding the use of alternative commonages for the grazing of cattle.
- 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:
  - upgrade R72 and main road into KwaNonkqubela into activity corridors;
  - introduce traffic calming measures along R72 corridor to make it more effective, and
  - create a pedestrian friendly environment along roads using street lighting and furniture.
- 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).
- The following recommendations from the Traffic Impact Assessment have been incorporated as mitigation measures:
  - 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.
  - 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.



- 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 access of the proposed CHC.
  - A demarcated pedestrian crossing at the KwaNonkqubela entrance from the R72, as well as a pedestrian crossing closer to the town of Alexandria.
  - 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).
  - Formalise the informal pedestrian route from the R72 to Winnie Madikizela Street (shown as option E in the TIA).
- 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.

## 2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

### Planning and Design Phase: Alternative (preferred alternative)

#### **Direct impacts:**

None.

#### **Indirect impacts:**

#### **Traffic impacts**

The access spacing between the proposed vehicle access point on Winnie Madikizela Street is 100m to the north and 148m to the south. The minimum requirement of 100m is met, and the position is acceptable. The shoulder site distance in the northerly and southerly direction is in excess of 120m and 150m respectively. The minimum requirement for shoulder sight distance required for a stop-controlled intersection for a passenger car and a single unit truck configuration for the Winnie Madikizela Street is 120m. As such the available sight distances exceed the minimum requirements and are acceptable. It is estimated that a total of 121 vehicle trips will be generated by the proposed development during peak traffic hours. The majority of the new trips that will travel to the proposed CHC is expected to originate within the Kwanonkqubela Area south of the proposed CHC and from the town of Alexandria. The R72 and Winnie Madikizela Street is a stop control intersection and will continue to operate at a Level of Service A (Free Flow) during morning and afternoon peak hours. The Pele Street and Winnie Madikizela Street is a stop control intersection and will continue to operate at a Level of Service A (Free Flow) during morning and afternoon peak hours. The total parking bays provided are considered sufficient for the proposed development as the minimum requirement of 72 parking bays are exceeded (TIA, Appendix D5).

A number of informal public transport stops are present along the R72 and Winnie Madikizela Street, and only one formal public transport stop (with a pre-cast concrete bus shelter) is located at the Winnie Madikizela Street and Khonza Street intersection. The road verges of are used as informal pick-up or drop-off points by local public transport services, predominantly during the morning and afternoon peak periods. The informal public

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transport stops lack basic facilities such as shelters, loading platforms and street lighting, along with facilities for pedestrians to cross the adjacent roads. (TIA, Appendix D5).

Speed humps are present along Winnie Madikizela Street and rumble strips are present on the R72 (on approaches to the Winnie Madikizela Street intersection), which assists to control vehicle speeds and improve safety of road users in the immediate area. The posted speed limit along the R72 at this intersection and Winnie Madikizela Street is 60km/h (TIA, Appendix D5).

No surfaced sidewalks are present along the R72 or Winnie Madikizela Street to accommodate pedestrian movements. Pedestrians currently make use of the gravel road verges, although the presence and positioning of stormwater drains (open V-drains) along Winnie Madikizela Street limits the use of the road verges by pedestrians in some places as well as informal paths from the R72. There are no formal pedestrian crossings present on the R72 as well as on the Winnie Madikizela Street (TIA, Appendix D5).

### Mitigation Measures

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.

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.

Parking aisle layouts within the CHC to be of such a nature to allow motorists to turn vehicles around at the end of the aisle, should no parking be available. Alternatively sufficient space should be available to carry out a U-turn manoeuvre if parking aisle is not open ended.

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 access of the proposed CHC.

A demarcated pedestrian crossing at the KwaNonkqubela entrance from the R72, as well as a pedestrian crossing closer to the town of Alexandria.

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).

Formalise the informal pedestrian route from the R72 to Winnie Madikizela Street (shown as option E in the TIA).

The above measures to be constructed at the same as the CHC.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Traffic (Vehicle & Pedestrian)	No change in status					
Preferred alternative	Traffic (Vehicle & Pedestrian)	Regional (3)	Long term (3)	Medium (6)	Highly Probable (3)	Moderate - (36) ((3+3+6)*3)	Low -

Degree of confidence: High

Reversibility: Yes

Replaceability: N/A

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**Cumulative impacts:**

None.

**Construction Phase:**

**Alternative (preferred alternative: Site 2)**

**Direct impacts:**

**Negative:**

**Impacts on flora and fauna (Biodiversity)**

Potential impacts of construction in natural areas on vegetation include:

- 1) damage to, or destruction of, indigenous vegetation, and riverine vegetation
- 2) potential loss of intact communities or species of conservation concern, as well as
- 3) the possible introduction of alien species.

Impacts associated with fauna primarily relate to disturbance and the loss of habitat and the limitation of free movement. Based on the location of the site on the edge of a rural township, next to a relatively busy road, and the transformed nature of the vegetation, a high diversity and number of faunal species is not expected.

Though the Eastern Cape Biodiversity Conservation Plan (2007) classifies the site as Terrestrial Critical Biodiversity Area 2: Corridor 1, which falls within Biodiversity Land Management Class 2: Near natural landscapes, the site is largely degraded and transformed, due to continued grazing and past disturbance – as reflected in the Addo Biodiversity Sector Plan (2012), which categorizes the site as No Natural Areas Remaining i.e. transformed by agriculture. Vegetation on site can no longer be described as Albany Coastal Belt vegetation (Mucina and Rutherford, 2006), as the site is dominated by grasses and weedy species, with a few Thicket species, and no Thicket clumps remaining.

The site is located in a disturbed area on the edge of a rural township, due to the high level of disturbance and current use for communal grazing the site is not important for biodiversity conservation, and impacts on conservation networks are, therefore, not anticipated. The site can, therefore, be considered for development.

Other construction activities that may impact on flora and fauna are:

- 1) Heavy construction vehicles and machinery may disturb or kill fauna, especially reptiles.
- 2) Cooking on open fires creates a fire risk, which could impact on flora and fauna.
- 3) Disturbance often results in further encroachment and dense establishment of alien vegetation.

These impacts can be prevented by good construction management. Mitigation measures have been recommended to minimize the severity of impacts during construction phase.

**Mitigation Measures**

- During construction phase, work areas must be clearly demarcated by means of highly visible durable materials, e.g. orange netting, no danger tape is to be used, so that construction workers limit their impact to these areas alone.
- In areas to be disturbed, indigenous vegetation that can successfully be translocated must be removed and stored for site rehabilitation. Any necessary permits must be obtained prior to the removal of protected and threatened species.
- All construction vehicles must stay on single demarcated access tracks to avoid compaction of soil and roots.
- Rehabilitation should be undertaken in a progressive manner. Re-vegetation of the disturbed areas with indigenous material should be undertaken as soon as construction activities at an individual site

***“Innovation for Sustainable Development”***



have been completed.

- Until such time as vegetation has established, temporary soil stabilization measures must be used. These can include the use of gravel bags, straw and other matting materials, hay bales, siltation fences, sedimentation basins, grassy swales, hydro-seeding, and straw mulching.
- Only indigenous vegetation that occurs naturally on site is to be planted in site rehabilitation and in landscaping activities.
- All alien vegetation must be removed from site and a maintenance programme for continual removal and/or follow-up actions must be developed.
- Provide an information programme for contractors and site staff about the need to conserve the fauna and flora of the area. All construction staff must receive training on environmentally safe work methods.
- Safe cooking areas must be provided for staff and no open fires must be allowed on site.
- No activities are to take place within 80m of the stream / drainage line.
- Planted specimens of *Podocarpus falcatus* (Outeniqua Yellowwood) are to remain on site, and are not to be disturbed in any way. The planted specimens of *Erythrina caffra* (Coral Tree) are also to remain on site.

Significance of the biodiversity impacts during the construction phase are low.

**No-Go Alternative:**

Biodiversity on site is low, and vegetation is largely transformed, and degraded. Illegal dumping is also impacting vegetation cover, by introducing weedy species, which become invasive. Biodiversity impacts likely to continue into the future, without management intervention.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Biodiversity Flora & Fauna	Site (1)	Long term (3)	Very Low (2)	Probable (2)	Low – (12) ((1+3+2)*2)	Low – (no mitigation measures)
Preferred alternative	Biodiversity Flora & Fauna	Site (1)	Long term (3)	Medium (6)	Definite (4)	Moderate – (40) ((1+3+6)*4)	Low –

Degree of confidence: High

Reversibility: Yes

Replaceability: Yes

**Noise**

Noise will be created during construction phase by heavy machinery and construction staff. This may impact on surrounding land users, particularly the schools in KwaNonkqubela Township. The surrounding area experiences noise types and levels typically associated with a rural township environment (e.g. noise from traffic, people, schools, businesses etc.) Construction activities will be limited to between 07:00 and 17:00 on weekdays. Significant noise impacts above that which is already experienced in the area are not expected.

**Mitigation Measures**

- All construction vehicles must be in sound working order.
- Construction times must be limited to weekdays between 07:00 and 17:00 and Saturdays until 13:00.

**“Innovation for Sustainable Development”**



- If blasting is to occur, neighbours must first be informed.
- A noise complaints register must be kept at the site office.
- The normal municipal by-laws with regards to noise control must apply.
- Construction staff must be informed about the sensitivity of neighbours to noise.
- Construction staff should not be housed on site.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Noise	No Change in Status					
Preferred alternative	Noise	Local (2)	Short term (1)	Medium (6)	Probable (2)	Low – (18) ((2+1+6)*2)	Very Low –

Degree of confidence: High  
Reversibility: Yes  
Replaceability: N/A

### Air quality (dust)

As vegetation is cleared and soil is exposed during the construction phase, the potential for dust creation increases. Dust creation will be exacerbated during high wind conditions. Dust may affect the visual and air quality of the area, and may smother vegetation if generated in sufficient quantities. Mitigation measures recommended to limit dust creation.

### Mitigation Measures

- Prompt rehabilitation and wetting down of recently cleared areas should minimize dust creation.
- All work must stop during high wind conditions (i.e. wind speeds >35km/h).
- Construction vehicles must adhere to speed limits.
- If fine building materials/sands are to be transported at the back of trucks, they must be adequately covered.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Air Quality (dust)	No change in status					
Preferred alternative	Air Quality (dust)	Regional (3)	Short term (1)	Medium (6)	Definite (4)	Moderate – (40) ((3+1+6)*4)	Low –

Degree of confidence: High  
Reversibility: Yes  
Replaceability: Yes

### *“Innovation for Sustainable Development”*



### Destabilisation of soil

Clearing of vegetation will expose soils and make them vulnerable to destabilisation by wind and water. This may result in erosion and impact on areas beyond the site boundary i.e. the stream along the north-eastern section of the site, and the downstream environment. The site contains clayey soils, on a gentle slope, which may be sensitive to erosion e.g. at storm water culverts/outlets/channels, and on steeper areas.

Erosion and sedimentation can be avoided by good work practices and prompt rehabilitation. Rehabilitating the open space areas and maintaining a good vegetation cover will assist in preventing erosion. Mitigation measures recommended below to reduce the risk of erosion.

### Mitigation Measures

- Disturbance and clearing of natural vegetation should be kept to the minimum required for construction.
- Newly cleared and exposed areas must be promptly rehabilitated with indigenous vegetation to avoid soil erosion. Where necessary, temporary stabilization measures must be used until vegetation establishes.
- Minimise the total amount of bare soil exposed to erosive forces by (1) controlling the amount of ground that is cleared at one time in preparation for construction, and (2) limiting the amount of time that bare ground may remain exposed before rehabilitation measures are put into place.
- The setback line from the drainage area must be clearly demarcated and no activities must be allowed in this area to prevent erosion and sedimentation of the river.
- Erosion control is particularly important along access roads. Drainage structures should be incorporated into roads, where run-off water must be well-dissipated to prevent erosion at discharge points.
- During construction phase, all soil stockpiles should be located on level areas, which are not susceptible to erosion. Where possible stockpile sites should be located on already disturbed areas where the site rehabilitation programme will be beneficial after all work has been completed. If necessary, stockpiles should be surrounded by silt curtains or some stabilizing measure.
- Soil stockpiles must not exceed 1.5 m in height and should not be stored for longer than 6 months. If alien material sprouts in stockpiles, this should be removed immediately.
- Overburden must not be mixed with topsoil stockpiles. Topsoil should not be stripped or stockpiled when wet, as compaction will occur.
- Sediment fencing should be erected downslope of all stockpiles to intercept any sediment, and upslope runoff should be diverted away from stockpiles.
- Plan for the worst case, that is, for heavy rainfall and runoff events, or high winds.
- Appropriate erosion control measures must be implemented on and adjacent to the access tracks and all construction areas and a monitoring programme established to ensure that no erosion is taking place. At the first sign of erosion the necessary remedial action must be taken.
- Care must be taken to ensure that runoff is well dispersed so as to limit erosion.
- Special attention should be paid to storm water control over the site. Site drainage must prevent ponding near structures and roads, and ensure that uncontrolled surface run-off does not encourage unwanted surface erosion and scour.
- When constructing erosion-control structures, it is important that the structure should trap silt, but allow for continued flow of water. Solid structures divert, rather than slow down, water flow. The effect of water diversion is to initiate a new erosion area/donga. This must be avoided.
- Foundation trenches and cut platforms should also be constructed with a slight fall of ground to prevent ponding of storm water. A sump will be required to remove water from the trenches.
- Cut to-fill platforms will require stringent storm water management. Measures must be put in place to prevent storm water ingress behind any cut and fill slopes, behind retaining walls and to the in situ

### *"Innovation for Sustainable Development"*



colluvium and structural fill.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Soil Erosion	No change in status					
Preferred alternative	Soil Erosion	Local (2)	Short term (1)	High (8)	Highly Probable (3)	Moderate – (33) ((2+1+8)*3)	Low –

Degree of confidence: High

Reversibility: Yes

Replaceability: No

### Surface and ground water contamination via construction-related activities (e.g. fuel and cement)

Activities that may impact on surface and groundwater during construction include:

1. Contamination from fuels, oils, cement and other construction materials.
2. Erosion and sedimentation of drainage areas.

Surface water (runoff) from the site flows to the stream / drainage line along the north / north-eastern boundary of the site, and ultimately drains into the Boknes River. It is important that construction activities do not result in sediment and surface water contamination. Conservation of the stream / drainage line, and maintenance of the buffer zone of riparian vegetation in the stream / drainage line, allows for storm water attenuation and natural filtration of runoff from the proposed development site, reducing the risk of soil erosion and contamination of the stream / drainage line. Mitigation measures are given below to reduce the possibility of contamination from occurring.

#### Mitigation Measures

- Ensure all construction machinery is in sound working order to prevent oil and fuel leaks and excessive exhaust fume emissions.
- No rock, silt, cement, grout, asphalt, petroleum product, timber, vegetation, domestic waste, or any deleterious substance should be placed or allowed to disperse into any drainage line or areas that will not be developed.
- Establish a site office with a dedicated area for construction vehicles to refuel and where cement can be mixed. Vehicle re-fuelling and cement mixing must only take place on impervious contained surfaces.
- Large volumes of fuel should not be stored on site.
- Toilet facilities must be made available to construction staff, and secured to the ground.
- Adequate waste disposal bins must be positioned on site. These must be properly secured and covered to prevent scavengers from tipping them.
- Educate all construction staff on sound environmental work practices
- No activities are to place within 80m of the stream / drainage line.

No-Go Alternative:

Illegal dumping already occurring in area (general waste and rubble), and likely to increase over time.

#### ***“Innovation for Sustainable Development”***





Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Surface and ground water	Regional (3)	Long term (3)	Medium (6)	Probable (2)	Low - (24) ((3+3+6)*2)	Low -
Preferred alternative	Surface and ground water	Regional (3)	Short term (1)	Medium (6)	Probable (2)	Low - (20) ((3+1+6)*2)	Very Low -

Degree of confidence: High

Reversibility: Yes

Replaceability: No

### Waste Management (Dumping of building rubble and other construction wastes)

A common construction impact is poor waste management, resulting in dumping of rubble and other wastes in open space areas. During the site visit, illegal dumping was already observed, as expected in open space which is in close proximity to residential areas, in an area that has experienced disturbance for an extended period of time. It is vital that all solid waste, including excavated material that is not re-used as fill material, be removed from site to a registered waste disposal site. Waste can end up in the stream and clog storm water systems, which has ecological and flooding impacts. If properly controlled, this impact would be of low significance.

### Mitigation Measures

- All building rubble and other construction wastes must either be recycled (i.e. used on site in the building process or provided to a waste recycling company) or removed from site to a registered waste disposal site. Environmentally acceptable work practice methods to be built into the contractor's code of conduct that include the importance of good housekeeping on site. A suitably qualified company will conduct construction audits during which dumping will be strictly monitored.
- Litter must be controlled during construction – adequate bins must be made available on site at all times. These must be made scavenger proof (secured lid) and must be emptied on a regular basis (i.e. not allowed to become overfull).
- Prior to site closure, all building rubble and other wastes must be removed from site.
- Construction materials stored at the camp site must be secured – i.e. plastics must be covered to prevent being blown off site. Skips must be regularly emptied (weekly) and must be covered.
- Any hazardous materials that need to be stored on site must be done so under lock and key.
- A register and waste disposal manifests must be kept of all solid waste that is disposed of at a landfill site or sent for recycling.
- No waste to be disposed of, buried or burnt on site.

No-Go Alternative:

Illegal dumping is a problem at present.





Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Waste	Regional (3)	Long term (3)	Medium (6)	Probable (2)	Low – (24) $((3+3+6)*2)$	Low –
Preferred alternative	Waste	Regional (3)	Short term (1)	Medium (6)	Probable (2)	Low – (14) $((3+1+6)*2)$	Very Low –

Degree of confidence: High

Reversibility: Yes

Replaceability: N/A

### Destruction of and/or disruption to heritage and/or cultural resources

Ms Celeste Booth did a survey of the site. The survey concluded that no archaeological heritage remains, features, or sites were documented within the proposed area for the development (report attached as Appendix D2).

The impact relates to the possible loss of cultural areas and heritage resources, including archaeological artefacts and paleontological sites.

The northern half of the property (section to the north of the stream / drainage line) is used as an area for *Kwaluka*. This area therefore forms part of the contemporary living cultural landscape. Several amabhoma occur in the northern half of the property. This section of the property falls outside of the proposed site for the Alexandria CHC, and thus will not be impacted upon.

Recommendations from the report have been included as mitigation measures.

### Mitigation Measures

- If human remains and/or other archaeological and historical material is uncovered during the development, such material must be reported to the nearest museum, archaeologist or to the South African Heritage Resources Agency, so that a systematic and professional investigation can be undertaken.
- Sufficient time should be allowed to remove/collect such material.
- The environmental control officer (ECO) as well as the construction managers/foremen should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Heritage Resources	No change in status.					

### **"Innovation for Sustainable Development"**



Preferred alternative	Heritage Resources	National (4)	Permanent (4)	Very Low (2)	Improbable (1)	Low – (10) ((4+4+2)*1)	Very Low –
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Degree of confidence: High  
Reversibility: No  
Replaceability: No

### Traffic impacts

Traffic associated with the development during the construction phase will be limited to construction vehicles transporting material to and from the site. Construction activity would occur between peak traffic hours which will reduce the impact on traffic flow.

The development can be accessed directly from Winnie Madikizela Street, which is accessed directly from the R72. It is unlikely that temporary road closures will be necessary – in the event, KwaNonkqubela can be accessed (via the R72) from Karel Landman Street, to the west. Traffic signs as prescribed by the Road Traffic Signs manual will be used if traffic is disturbed. The traffic authorities will be notified of any disturbance and their assistance will be requested.

### Mitigation Measures

- Construction vehicles must adhere to a speed limit of 60 km/hr on tar roads and 40 km/hr on gravel roads.
- Vehicles transporting fine materials must be covered using tarps to prevent dust creation.
- The traffic department must be notified and involved when construction activities require any road closures (unlikely).
- The public must be notified of any road closures ahead of time.
- Roads must be monitored for signs of erosion, especially after wet periods. If roads are damaged by construction vehicles, they must be rehabilitated immediately.
- The developer should be responsible for the condition of the road during construction phase within reasonable measures – i.e. any damage caused as a result of construction vehicles must be rectified by the developer.
- Access to businesses and residences must not be affected.
- A community liaison officer must be on site at all times to receive comments from residents. These must be recorded in a complaints register along with follow-up action for review by an external auditor.
- Flagmen to be posted at the entrance to the site and when construction works are being undertaken adjacent to the road.
- Signage is to be displayed regarding construction activities.
- A minimum shoulder sight distance of 120m should be maintained at the new vehicle access to the CHC by ensuring there are no objects (dirt bins, temporary road signs, etc.) present that can obstruct the sight distances available to construction vehicle drivers.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Traffic	No change in status					
Preferred alternative	Traffic	Regional (3)	Short term (1)	Medium (6)	Highly Probable (3)	Moderate – (30) ((3+1+6)*3)	Low –

**“Innovation for Sustainable Development”**



Degree of confidence: Medium  
Reversibility: Yes  
Replaceability: N/A

**Visual impacts:**

The current visual nature of the site is open space in a rural setting (quality reduced by high levels of alien plant invasion and illegal dumping). The construction activities will change the visual nature of the site from open space looking over a densely-vegetated drainage area, to a construction site.

**Mitigation Measures**

- Construction workers are not to be accommodated on-site.
- Only shrubs are to be removed for the construction camp area and laydown areas.
- Indigenous shrubs and trees located on the boundary of the site should be left intact.
- Cleared areas not required for operational use to be re-vegetated with indigenous vegetation.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Visual	No change in status					
Preferred alternative	Visual	Local (2)	Short term (1)	Medium (6)	Highly Probable (3)	Low – (27) ((2+1+6)*3)	Very Low –

Degree of confidence: High  
Reversibility: Yes  
Replaceability: Yes

**Direct impacts:**

**Positive:**

**Socio-economic impacts: Employment creation**

The construction phase will generate a certain number of short-term jobs.

**Mitigation Measures**

- Use should be made of local labour.
- Materials should be sourced from local suppliers.
- Transport should be provided for labour to-and-from site on a daily basis.
- Construction staff must not be housed on site.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Socio-Economic	No change in status					

**“Innovation for Sustainable Development”**



Preferred alternative	Socio-Economic	Regional (3)	Short term (1)	Medium (6)	Probable (2)	Low + (20) ((3+1+6)*2)	Moderate +
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Degree of confidence: High  
Reversibility: Yes  
Replaceability: N/A

**Indirect impacts:**

**Negative**

**Social impacts: Health, Safety and Security**

General safety of persons is a concern due to construction activities, e.g. open excavations and machinery, resulting in potential injury to construction staff; health and safety aspects relate to the potential spread of HIV and STDs.

Security aspects relate to potential theft of construction materials and theft of neighbouring farmers livestock or equipment. The presence of workers on the site for construction related activities, irrespective of whether or not they are local, may create an increased safety and security risk to local households in the area. In addition, any changes in the local crime rates are likely to be attributed to the influx of construction workers, whether such changes can be attributed to their presence or not.

**Mitigation Measures**

- The construction area must be demarcated and access controlled for the duration of the construction period.
- Construction vehicles must adhere to speed limits and must be made aware of the possibility of people walking and living in close proximity to the site.
- A health and safety method statement/program is essential.
- Shoring of excavations to ensure the safe workings of site staff.
- Signage is to be displayed regarding construction activities.
- General risks associated with the construction activities should be addressed through compliance with the relevant health and safety procedures and regulations.
- The existing play park area to be located outside of the construction area.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Health, Safety & Security	No change in status					
Preferred alternative	Health, Safety & Security	Regional (3)	Short term (1)	Medium (6)	Probable (2)	Low - (20) ((3+1+6)*2)	Very Low -

Degree of confidence: High  
Reversibility: Yes  
Replaceability: N/A

***"Innovation for Sustainable Development"***



**Social impacts: Infrastructure and Services**

The impact relates to disruption of or damage to existing services and infrastructure. Existing infrastructure and services should not be damaged or interrupted during the construction phase.

**Mitigation Measures**

- A pre-construction survey must be conducted by the Contractor prior to the commencement of the construction works to locate existing services.
- Wayleaves to be obtained from the relevant departments, e.g. Ndlambe Sanitation, Road, Stormwater Divisions, prior to construction starting.
- Location of existing services and widths of existing servitudes to be demarcated to avoid damage and to ensure disruption to surrounding areas is avoided.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Infrastructure & Services	No change in status					
Preferred alternative	Infrastructure & Services	Regional (3)	Short term (1)	Medium (6)	Probable (2)	Low - (20) ((3+1+3)*2)	Very Low -

Degree of confidence: High  
Reversibility: Yes  
Replaceability: Yes

**Cumulative impacts:**

None.

**Operational Phase**

**Alternative (preferred alternative)**

**Direct impacts:**

**Negative:**

**Impacts on flora and fauna (Biodiversity)**

During the operational phase, loss of vegetation and environmental degradation could be attributed to encroachment into open space and the potential of alien plants spreading is likely if not managed. This is also linked to the spread of exotic garden plants that escape from landscaped areas.

**Mitigation Measures**

- The Alexandria CHC is to be fenced.
- Planted specimens of *Podocarpus falcatus* (Outeniqua Yellowwood) are to remain on site, and are not to be disturbed in any way. The planted specimens of *Erythrina caffra* (Coral Tree) are also to remain on site.
- Only indigenous vegetation that occurs naturally on site is to be planted in site rehabilitation and in landscaping activities.
- All alien vegetation must be removed from site and a maintenance programme for continual removal

**“Innovation for Sustainable Development”**



and/or follow-up actions must be developed.

**No-Go Alternative:**

Biodiversity on site is low, and vegetation is largely transformed, and degraded. Illegal dumping is also impacting vegetation cover, by introducing weedy species, which become invasive. Biodiversity impacts likely to continue into the future, without management intervention.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance before mitigation	Significance after mitigation
No-go Option	Biodiversity Flora & Fauna	Site (1)	Long term (3)	Very Low (2)	Probable (2)	Low – (12) ((1+3+2)*2)	Low –
Preferred alternative	Biodiversity Flora & Fauna	Site (1)	Long term (3)	Medium (6)	Probable (2)	Low – (20) ((1+3+6)*2)	Very Low –

Degree of confidence: High

Reversibility: Yes

Replaceability: Yes

**Traffic impacts / Impacts on pedestrians visiting the clinic:**

There are a high number of pedestrians in Alexandria, compared to vehicle owners and users of public transport. It can be expected that the pedestrian traffic and possibly vehicle traffic (private and public transport) will increase with the development of the proposed Alexandria CHC. Residents from the Wentzel Park area will be required to cross the R72 when required to visit the proposed CHC.

**Mitigation Measures**

It is recommended that the proposals from the Ndlambe Municipality's SDF be implemented, namely:

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

Traffic calming measures along the proposed Alexandria CHC access road (Winnie Madikizela Street) to be implemented and maintained.

A demarcated pedestrian crossing at the KwaNonkqubela entrance from the R72, as well as a pedestrian crossing closer to the town of Alexandria to be maintained.

Maintenance of the two formal public transport stops, pedestrian crossings and surfaced sidewalks.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Traffic (Vehicle & Pedestrian)	No change in status					

**“Innovation for Sustainable Development”**





Preferred alternative	Traffic (Vehicle & Pedestrian)	Regional (3)	Long term (3)	Medium (6)	Highly Probable (3)	Moderate - (36) ((3+3+6)*3)	Low –
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Degree of confidence: High  
Reversibility: Yes  
Replaceability: N/A

**Visual impacts:**

The current visual nature of the site is open space in a rural setting (quality reduced by high levels of alien plant invasion and illegal dumping). The development will change the visual nature of the site from open space looking over a densely-vegetated drainage area, to built-up. Considering that the predominant visual nature of the surrounding area is a high density residential area, and that residential developments are likely to spread into the surrounding open space areas as housing demands increase, this change cannot be rated as a high negative impact.

**Mitigation Measures**

- The design of the facility must consider the sense of place and visual character of the area.
- Lighting in and around the facility and along roadsides must be directed downwards (e.g. bollard lights) to prevent light pollution at night.
- If fencing and walling are to be used, these must be visually permeable.
- Entrances must include soft landscaping to prevent them from being hard and visually intrusive features.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Visual	No change in status					
Preferred alternative	Visual	Local (2)	Long term (3)	Medium (6)	Highly Probable (3)	Moderate – (33) ((2+3+6)*3)	Low –

Degree of confidence: High  
Reversibility: Yes  
Replaceability: Yes

**Social impacts: Infrastructure & Services**

The impact that the additional demand for infrastructure and services may have on existing infrastructure and services (e.g. potable water, electricity and sanitation services).

Water will be supplied from a network of four (4) existing reservoirs that supply the Kwanonqhubela Township, into an elevated water tank. The elevated water storage tank is estimated to hold approximately 320m<sup>3</sup> in order to cater for the daily usage and fire demand requirements. The total water demand for the proposed CHC is estimated at 22.45m<sup>3</sup>/day and the fire demand / fire flow is 20l/second with an allowance of four (4) hours (calculated to be 288m<sup>3</sup>). The Ndlambe Local Municipality has indicated (letter dated 30 January 2015) the present water supply quantity to Alexandria is insufficient to meet the demand, and that this shortfall is being addressed through the implementation of the Amatola Water Board Quick Win Project

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scheduled for completion at the end of March 2015. It stands to reason that with the proposed water storage tank and completion of the Amatola Water Board's project, that there will be a sufficient supply of water during operations.

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 (17m<sup>3</sup>/day). The Ndlambe Local Municipality has indicated (letter dated 30 January 2015) connection to the existing system is possible. It stands to reason then that the Alexandria Waste Water Treatment Works will have sufficient capacity.

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.

The proposed site is currently utilised as a commonage for cattle grazing and a play park is located in the south eastern corner. With the development of the CHC, the area would no longer be used for grazing; however an additional commonage is located in close proximity to the site.

#### Mitigation Measures

- Provision of 500 litre rainwater tanks for harvesting of rainwater.
- Installation of water saving measures, e.g. dual flush toilets, aerated taps.
- Immediate fixing of any leaks or broken pipes.
- Energy saving measures (e.g. energy saving lighting, solar geysers) to be provided.
- Community to be informed of additional grazing areas.
- Play park to be incorporated into the CHC area.
- Cut off drains upstream of the development to be provided and maintained.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Infrastructure & Services	No change in status					
Preferred alternative	Infrastructure & Services	Regional (3)	Long term (3)	Medium (6)	Highly Probable (3)	Moderate - (36) ((3+3+6)*3)	Low -

Degree of confidence: High

Reversibility: Yes

Replaceability: Yes

#### Waste management:

Impacts relating to ineffective waste management procedures may lead to the dumping of waste, littering and pollution of the surrounding areas. If waste is not disposed of correctly, there is a possibility that waste may be blown into the surrounding environment or being illegally disposed of.

The proposed Alexandria CHC will produce hazardous medical waste. However the proposed Alexandria CHC will not incinerate, treat or dispose of the hazardous medical waste on site. Hazardous medical waste

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will be collected by a registered waste transporter and disposed of at a licenced hazardous disposal site.

**Mitigation Measures**

- No hazardous waste material to be disposed of as general waste, in dustbins or in drains.
- No waste to be disposed of, buried or burnt on site.
- Waste disposal manifests must be kept of all solid waste that is disposed of at a registered landfill site or sent for recycling.

No-Go Alternative:

Illegal dumping is a problem at present and is anticipated to continue.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Waste	Regional (3)	Long term (3)	Medium (6)	Highly Probable (3)	Moderate - (36) ((3+3+6)*3)	Moderate -
Preferred alternative	Waste	Regional (3)	Long term (3)	Medium (6)	Probable (2)	Low - (24) ((3+3+6)*2)	Very Low -

Degree of confidence: High

Reversibility: Yes

Replaceability: Yes

**Positive:**

**Socio-economic impacts: Employment creation**

The development will generate long-term local employment opportunities i.t.o. medical and support staff at the CHC.

**Mitigation Measures**

- As far as practically possible, use must be made of local labour in the operational phase.
- Materials required for operational phase must be locally sourced, where possible.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Socio Economic	No change in status					
Preferred alternative	Socio Economic	Regional (3)	Long term (3)	Medium (6)	Probable (2)	Low + (24) ((3+3+6)*2)	Moderate +

Degree of confidence: High

Reversibility: Yes

Replaceability: N/A

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**Social impacts: Provision of health care services**

The CHC will be a large facility, allowing for consolidation of the Wentzel Park and KwaNonkqubela clinics, and centralization of health care service provision to township communities in Alexandria. The CHC will be able to provide a wider range of medical services (including overnight stay facilities), which will be able to cater to a growing population in Alexandria itself, as well as surrounding towns in the larger Ndlambe Municipality.

No-Go Alternative:

The medical services will continue to be constrained.

Alternative	Impact	Extent	Duration	Intensity	Probability	Significance without mitigation	Significance with mitigation
No-go option	Health care	Regional (3)	Long term (3)	Medium (6)	Definite (4)	High – (48) $((3+3+6)*4)$	High -
Preferred alternative	Health care	Regional (3)	Long term (3)	Medium (6)	Definite (4)	High + (48) $((3+3+6)*4)$	High +

Degree of confidence: High

Reversibility: Yes

Replaceability: Yes

**Indirect impacts:**

None.

**Cumulative impacts:**

Cumulative impacts include Social impacts: Infrastructure & Services and Waste management impacts as additional demand will be placed on these service infrastructure. These have been assessed under direct impacts.

**3. ENVIRONMENTAL IMPACT STATEMENT**

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Alternative A (preferred alternative)**

No significantly high negative impacts that would render the application fatally flawed are associated with the preferred development option. The table below 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.

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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.
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.

### No-go alternative (compulsory)

#### 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

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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.



## SECTION E. RECOMMENDATIONS OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES	
YES	

Is an EMPr attached?

The EMPr must be attached as Appendix F.

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

--

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

- All mitigation measures listed in this report should be contained in an authorisation.
- All measures in the Environmental Management Programme (EMPr, Appendix G) are to be implemented.
- 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.
- Public safety must be prioritised during the construction phase.
- Local businesses must not be negatively impacted on in construction phase.
- 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.
- Traffic recommendations as per the TIA (and included in the mitigation measures) to be implemented.



## SECTION F: APPENDICES

The following appendixes must be attached as appropriate:

### Appendix A: Site plan(s)

Figure 1. Locality of the proposed Alexandria Community Health Centre

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 at the proposed Alexandria Community Health Centre site

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**

**Appendix D6: Declarations of Specialist Independence**

### 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

Appendix G1: Title deed(s)

Appendix G2: Impact Assessment Methodology

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Appendix G3: Assumptions, gaps in knowledge

Appendix G4: EAP Details and Experience

Appendix G5: Ndlambe Municipality Confirmation Letter