Basic Assessment

Background Information Document

Cedarville Middle Income Housing Development

Ref no: EC41/AN/LN1/LN3/M/14/15-33

Report Number 2015-R058

05 May 2015

Prepared for

Matatiele Local Municipality

By

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Contents

1 Introduction 3
2 Locality 3
3 Development proposal 4
4 Site description 6
4.1 Eastern Cape Biodiversity Conservation Plan 6
4.2 Mabela Sandy Grassland 9
4.3 Sewage overflow 11
4.4 Water course 12
4.5 Vegetation 12
4.6 Site Disturbance 13
4.7 Cemetery 14
5 Public Participation Process 15
6 Appendix B: Interested and Affected Party (I&AP) Registration Form 17
7 Appendix C: CV of Nishal Sewruttan 19
8 Appendix D: Contact Details 21

1 Introduction

NS Environmental (Pty) Ltd were appointed by Tshani Consulting, on behalf of Matatiele Local Municipality to conduct a Basic Environmental Assessment for the proposed Middle Income Housing Development in Cedarville.

2 Locality

The study site is a portion of Commonage located in Cedarville, Eastern Cape (Figure 1). The site centres around the following geographical co-ordinates: 30°23'09.49"S; 26°03'02.98" and falls within the jurisdiction of the Matatiele Local Municipality, which forms part of the Alfred Nzo District Municipality. The site is bordered to the south-west by a cemetery. Residential housing lies to the north-west. To the south lies low cost housing. Approximately 100m to the north of the site lies the local waste water treatment works. To the east lies an agricultural farm (Figure 2).

Figure 1A: Site Locality

Figure 1B: Aerial view of the study site

3 Development proposal

The Matatiele Local Municipality Council took a resolution to identify land for housing development in ward 26 of Cedarville, due to the high demand for high-middle income residential sites.The purpose of the project is to formalize the identified area by developing it into proper residential areas, thus providing people with land tenure and the necessary infrastructure required for such a development.

In terms the Matatiele SDF, the area to be planned forms part of the commonage and it is located opposite an existing residential development. The area identified is approximately 42ha in extent and approximately 7ha of the study area is already occupied by a cemetery.

The layout design for the Matatiele Middle Income Housing Development is based on the following Design principles:

- Optimising access to main mobility routes linking the study area with the broader surrounding area.
- Ensuring integration between proposed development and existing built environment.
- Optimising pedestrian movement, safety and integration by separating the main 13m collector road network from the minor road network, forcing traffic onto specific routes whilst retaining minor roads for access purposes.

- By minimising through-flow of traffic on minor roads the design attempts to allow for safe pedestrian movement and play space within minor road reserves.
- Minor roads are linked to pedestrian lanes, aligned to provide lateral linkage between residential street blocks.
- Aligning roads to serve to accommodate storm water drainage, whilst making provision for existing marsh areas and drainage feature to be used as part of a proposed storm water management system.
- Positioning non-residential uses to be accessible to all parts of the development, whilst accommodating higher order facilities and services in most central and accessible positions.
- Ensuring that the identified watercourses and wetland areas are protected in terms of providing buffer zones and appropriate zonings.

The outcome of the design layout (Figure 1C) produced the following:

- 263 Residential Erven with an average Erf size of 586m2 in extent (13.1500Ha).
- 1 Business Erf (0.6563ha).
- 4 Public Open Spaces (14.3641ha).
- Public Roadways (6.0016ha).

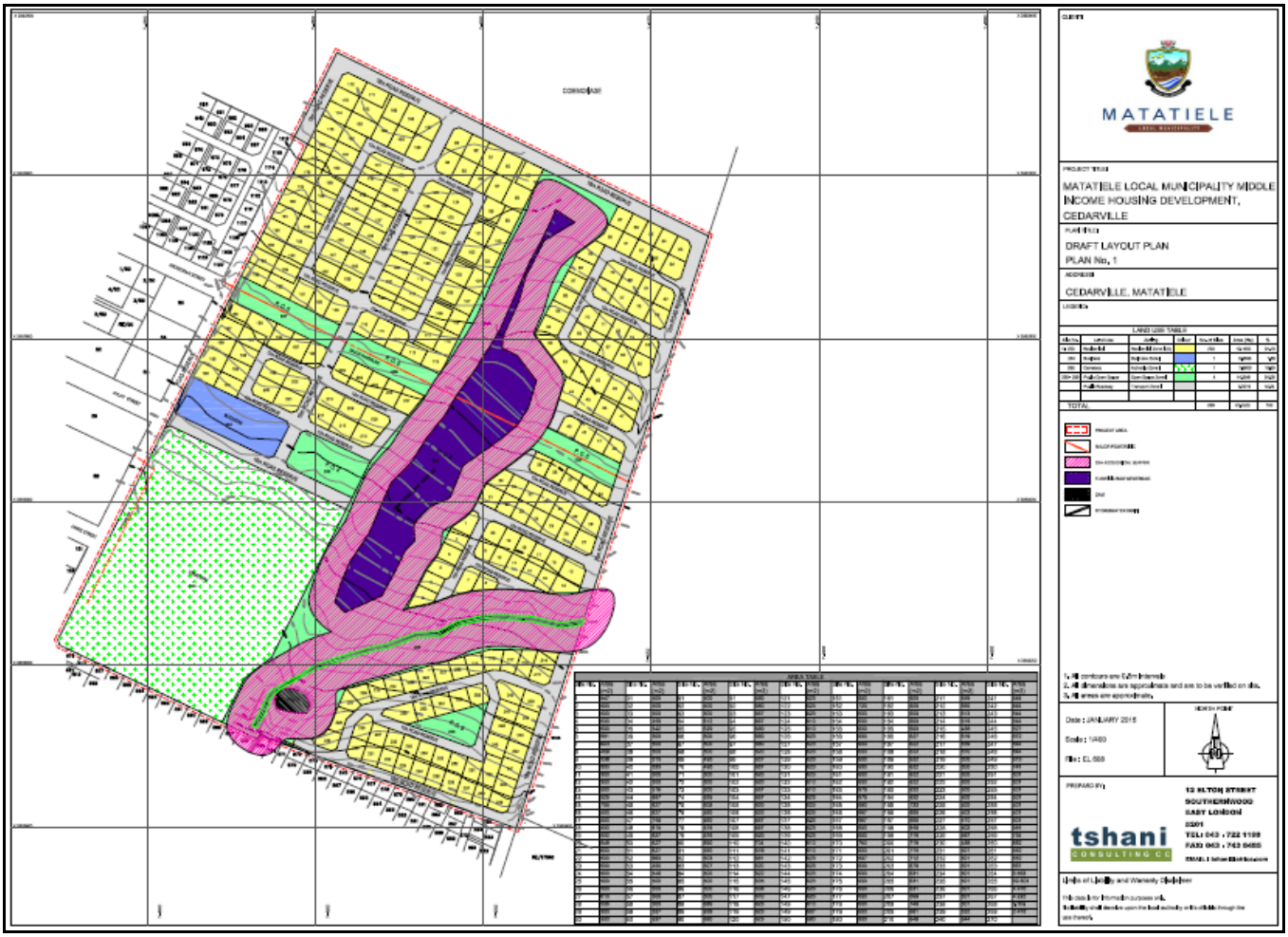

Figure 1C: Layout

4 Site description

4.1 Eastern Cape Biodiversity Conservation Plan

The Eastern Cape Biodiversity Conservation Plan (ECBCP) has classified the study site as Terrestrial CBA2 (Figure 2) and Aquatic CBA 2 (Figure 3). Associated with each of CBAs are biodiversity land management classes (BLMC), which refer to how these categories should be managed. The BLMC assigned to the terrestrial CBA 2 is a BLMC 2 (Table 1). BLMC 2 areas should be maintained in a near-natural state, where wetlands and streams are afforded buffers and natural vegetation is kept intact.

Figure 2: ECBP – Terrestrial CBA map

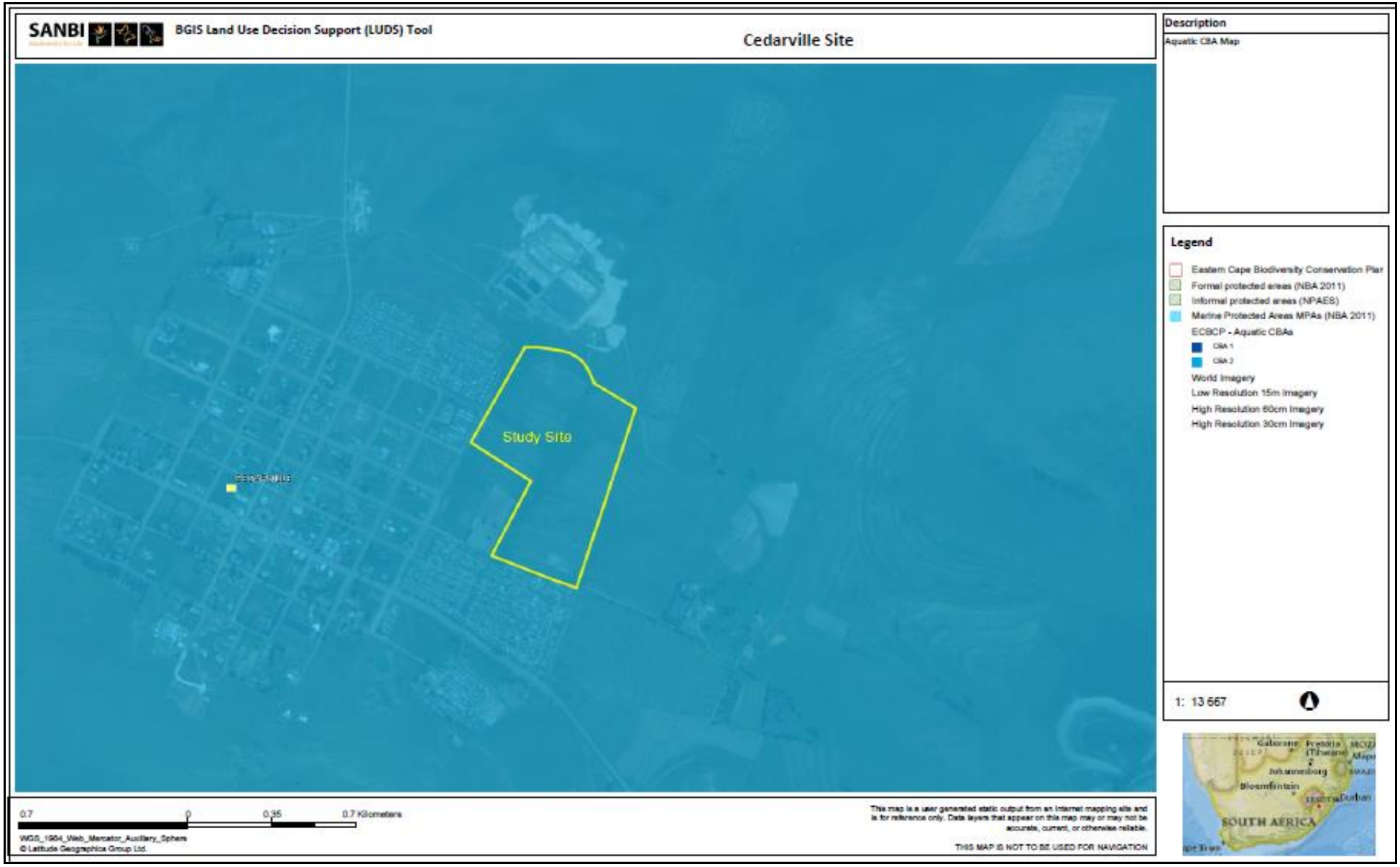

Figure 3: Aquatic CBA map

Table 1: Terrestrial biodiversity land management classes

BLMC	Recommended land use objective
BLMC 1: Natural landscapes	Maintain biodiversity in as natural state as possible. Manage for no biodiversity loss.
BLMC: Near natural landscapes	Maintain biodiversity in near natural state with minimal loss of ecosystem integrity. No transformation of natural habitat should be permitted.
BLMC: Functional landscapes	Manage for sustainable development, keeping natural habitat intact in wetlands (including wetland buffers) and riparian zones. Environmental authorisations should support ecosystem integrity.
BLMC: Transformed landscapes	Manage for sustainable development.

4.2 Mabela Sandy Grassland

The Eastern Cape Biodiversity Plan has classified the vegetation on site as Mabela Sandy Grassland (Gs13) (Figure 4). A portion of the site is also regarded as alien invasive vegetation. Mabela Sandy Grassland is distributed in the KwaZulu-Natal and Eastern Cape Provinces. Distribution of this vegetation type occurs in the Cedarville Flats (basin draining into the Umzimvubu River) in the region of Cedarville-Matatiele, Eastern Cape. This vegetation is also found in a small area in the basin of Simi and Ramohlakoana in the Kinira Valley, west of Matatiele. Mabela Sandy Grassland grows at an altitude of 1 440 – 1 500m, but up to 1 550m in a few places.

Mabela Sandy Grassland generally grows in flat valley basins with a relatively high proportion of poorly drained soils with a generally low nutrient status. It is dominated by species-poor, low tussock-dominated, sour grasslands without indigenous trees, with *Sporobolus pyramidalis* and *Aristida junciformis* as indicator species.

The conservation status of Mabela Sandy Grassland is vulnerable with a conservation target of 23%. Only a small portion is legislatively conserved in Malekgonyane (Ongeluksnek) Wildlife Reserve. More than 20% of the vegetation is already transformed for cultivation (maize) and by urban sprawl. Threats to the remaining grasslands are from heavy livestock grazing, particularly in communal areas. Overgrazing also increases the risk of local erosion

Figure 4: Eastern Cape Biodiversity Plan – Vegetation map (Gs13 = Mabela Grassland)

4.3 Sewage overflow

There is a sewage overflow from a manhole located outside the southwestern border of the site. The sewage is then flowing into a dam located on the south-western corner if the site (Figure 5). It is unknown at this stage if this dam/wetland is a natural wetland or created from the sewage and stormwater runoff. There is also another manhole located further downstream, as indicated in the layout plan (Appendix A), which is overflowing (Figure 6). These sewage leakages are creating a large wet area that runs from the south of the site to the north. There is a strong sewage stench in the vicinity of the sewage overflow areas.

Figure 5: Sewage overflow from outside the site and into the on-site dam

Figure 6: Sewage overflow from manhole on site creating a large wet area

4.4 Water course

There is a stormwater drainage channel which enters the site at the south-western boundary.). It appears to be a modified/built water course with no riparian vegetation present. The channel travels in a north-easterly direction before exiting at the eastern boundary of the site (Appendix A). A sewage stench was noted at the drainage exit point on the eastern boundary, indicating that sewage is entering the drainage course.

Figure 7: Stormwater drainage channel

4.5 Vegetation

The majority of the site consists of grassland (Figure 8). The occurrence of Sporobolus pyramidalis was noted (Figure 9). Sporobolus pyramidalis is an indicator species of Mabela Sandy Grassland, as determined by the ECBP.

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Figure 8: Grassland vegetation

Figure 9: Sporobolus pyramidalis

4.6 Site Disturbance

Soil excavation was noted on the south eastern corner of the site (Figure 10). At the same vicinity, the dumping of soil and rubble was also noted (Figure 11).

Figure 10: Soil excavation

Figure 11: Soil excavation and soil/rubble dumping

4.7 Cemetery

A cemetery is located to the south-west of the study site's boundary (Figure 12).

Figure 12: Adjacent cemetery

5 Public Participation Process

Interested and Affected Parties (I&APs) are individuals, civic organisations, non-government organisations, authorities, or any other entity that are affected by a development. The purpose of public participation is to:

- Identify I&APs that may be affected by a development.
- Allow I&APs to provide input during the public participation process regarding:
    - Any concerns resulting from the proposed development
    - Indigenous knowledge on the study site and surrounding environment
    - The enhancement of positive impacts by the proposed development.
- Allow I&APs to comment on the public draft basic assessment report (Figure 13)

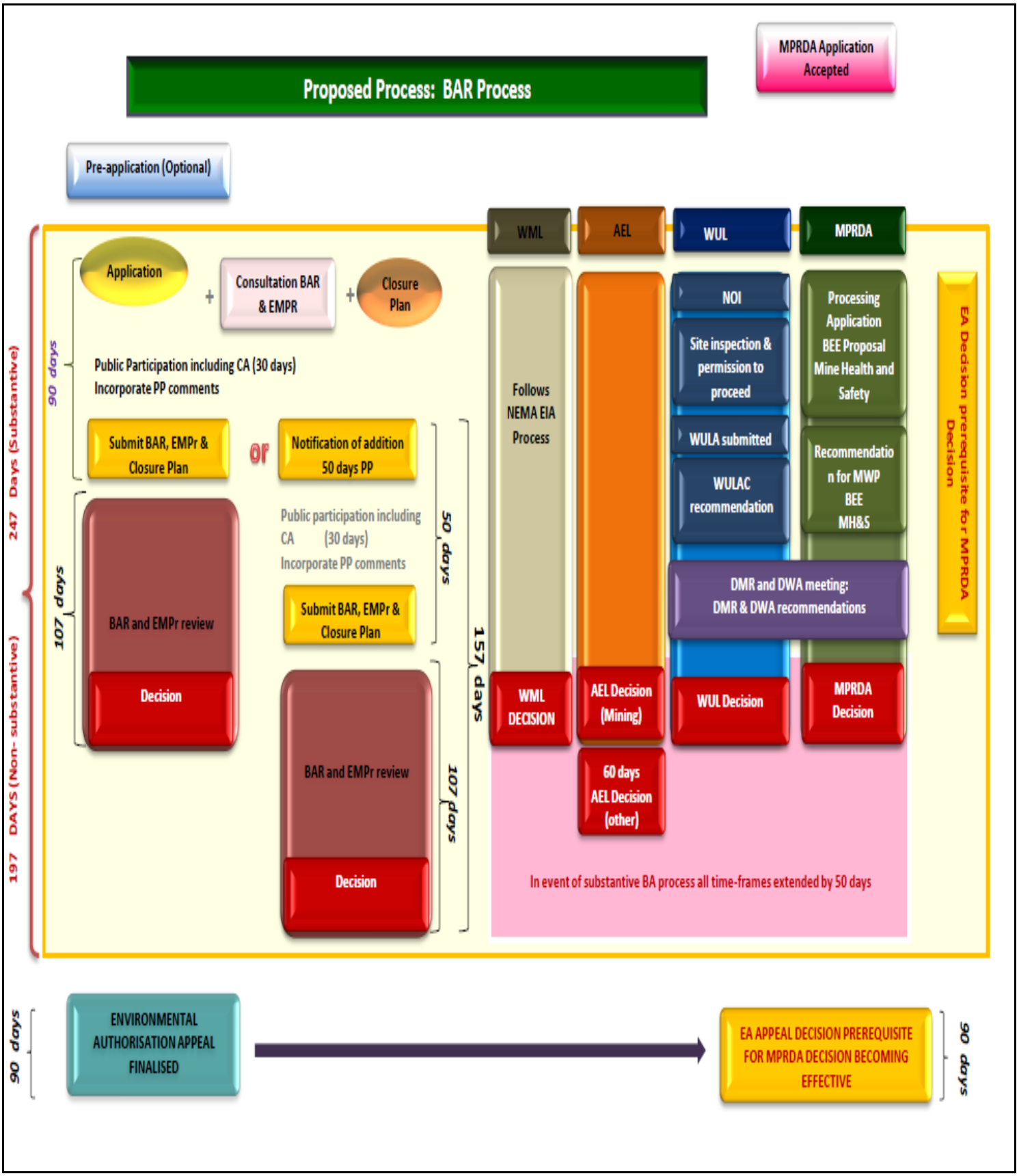

Figure 13: Basic Assessment flowchart

6 Appendix A: Interested and Affected Party (I&AP) Registration Form

Click on the ***paper clip*** below to access the I&AP Registration Form (PDF)

See next page for hardcopy version

7 Appendix B: CV of Nishal Sewruttan

Education

- BSc Environmental Management (Chemistry), 2006 - UNISA
- Honours BSc Environmental Management, 2010 – UNISA

Accreditations

- Global Carbon Exchange (GCX) certified carbon footprint analyses course
- Global Reporting Initiative (GRI) certified training course on GRI sustainability reporting.

Professional registration

Registered as a *Certified Environmental Assessment Practitioner* by the Interim Certification Board of the Environmental Assessment Practitioners Association of South Africa (EAPASA)

Expertise:

Nishal has accumulated nine years of professional experience in managing a broad range of projects in the environmental management field including environmental authorisations, environmental management plans; environmental control officer duties; contamination assessments; and health, safety, and environmental management systems. Previous project experience include environmental services for industrial facilities, golf estates, residential developments, resort developments, shopping malls, office parks, and public works.

Project experience:

Client	Project	Consultancy Service
Intsika Yethu Municipality (EC)	Subdivision and rezoning of Portions on Remainder Erf 1 and Erf 176, Cofimvaba	Scoping/EIA
ABSA DEVCO	Thornhill Housing Development, Port Alfred	Scoping/EIA and ECO
Department of Environmental Affairs and Tourism	Buffelspruit Nature Reserve	Basic Assessment
Chris Hani District Municipality	Chumanco Local Spatial Development Framework	Spatial Environmental Assessment
Ethekwini Municipality	Umkhumbane Freedom Square, Cato Manor	Basic Assessment and ECO
Puma Shoes Factory	Health, Safety, and Environmental Management Systems	Environmental Audit
South African Police Service	Port Alfred Police Station	Environmental Feasibility Assessment
KZN Department of Transport	Umlazi River Bridge	Basic Assessment and ECO
KZN Department of Transport	Mvamanzi River Bridge	Basic Assessment
KZN Department of Transport	Umhlatuze River Bridge	Basic Assessment

Client	Project	Consultancy Service
KZN Department of Transport	P127 Road, Impendle	ECO
Bimat Investments cc	Motor Spares Shop, Verulam (Midas)	Basic Assessment and ECO
Southern Palace Investment 414 (PTY) Ltd	Rockclyffe Coastal Golf Estate, East London	Scoping/EIA
Southern Palace Investment 414 (PTY) Ltd	Rockclyffe Coastal Hotel and Resort development, East London	Basic Assessment
Southern Palace Investment 414 (PTY) Ltd	Rockclyffe Spatial Development Framework (SDF), East London	Assisted in SDF preparation
Bradbury Trading 35 (Pty) Ltd, East London	Cove Rock Shopping Mall	Scoping/EIA
OR Tambo District Municipality (EC)	Tsolo Sewage Treatment Works	Scoping/EIA
Island View Storage Ltd, DBN	Existing Liquid Bulk Storage	Contamination Assessment
Island View Storage Ltd, DBN	Liquid Bulk Storage Expansion	Scoping/EIA
Cape Town Bulk Storage, CT	Liquid Bulk Storage Expansion	Scoping/EIA
Fowler Trust	Cove Rock Warehousing Development, East London	Basic Assessment
True Group (PTY) Ltd	Commercial offices and retail space, King Williams Town	Basic Assessment
Cedar Falls Properties 172 (PTY) Ltd	Rezoning and Mixed Use Development of Portion 4 of Farm 1050, Kidd's Beach, East London	Scoping/EIA
Nelbut Properties cc	Rezoning and development of Farm 807/3, 4, & 18 (Shadow Park), Quenera River, East London	Basic Assessment
Natures Rest cc	Rezoning and development of Lagoon Valley, Hickmans River, East London	Basic Assessment
Le Retainer Walls cc	Subdivision of Farm 724, Kwelera River, Great Kei Municipality	Basic Assessment
Coca-Cola Fortune, Polokwane	Safety, Health & Environmental Management Systems (ISO14001 & 18001)	Environmental Legal Compliance Audit
Coca-Cola Fortune, Bloemfontein	Safety, Health & Environmental Management Systems (ISO14001 & 18001)	Safety, Health & Environmental Risk Assessment
Mopani Copper Mines, Zambia	Safety, Health & Environmental Management Systems	Implementation of Safety, Health & Environmental Management Systems
PG Bison, Ugie (EC)	Environmental Management System (ISO14001)	Assisted in implementation of Safety, Health & Environmental Management Systems
Buffalo City Municipality	Roundhill Regional Waste Disposal Site, East London	Environmental Audit

Client	Project	Consultancy Service
Various petroleum installations	Contamination Assessment	Contamination assessment and remediation of over 30 hydrocarbon contaminated sites including filling stations, commercial sites, and fuel depots.

8 Appendix C: Contact Details

Mr Nishal Sewruttan (Director)

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