

CHAPTER TWO: PROJECT DESCRIPTION

2.1 INTRODUCTION

The applicant is proposing the subdivision of a portion of the site (62/10 Little Chelsea) for the establishment of a rural-residential estate with 10 residential erven; as well as the provision of associated bulk infrastructure (access, water, electricity, and sanitation). The portion of the site proposed for subdivision and development will cover an estimated 20.2 ha of the property, with the remaining 22.6 ha to stay zoned as agriculture. The final layout for the development will be informed by the specialist studies that will be undertaken in the EIA phase of the assessment. This section of the report provides more detailed information on the proposed development, and associated infrastructure requirements.

2.2 TOWN PLANNING

In November 2007, and in line with various legislative requirements, the Nelson Mandela Bay Municipality (NMBM) released the Draft Strategic Environmental Assessment (SEA) of the Draft Spatial Development Framework (SDF) for the Metro. The SDF of the NMBM aimed to, amongst others, *“provide a document that will guide decision-making with regard to developable and non-developable areas including the sequencing of development, and create a framework for public and private investment decisions to facilitate investor confidence.”* (NMBM, Draft SEA of Draft SDF, 2007, p2).

In order to address the increasing demand for housing, agriculture and other land-uses, to identify opportunities to reduce the pressures of these activities on the natural environment, and to meet the above mentioned legal requirements, the NMBM chose to subject the SDF to a SEA. In the context of this study, the SEA is aimed at informing land use planning. The SEA process considered the opportunities offered and the constraints imposed by the environment on the draft SDF. The SEA is therefore a process whereby criteria are determined to ensure that development is sensitive to, and remains within the capacity of the environment.” (NMBM, Draft SEA of Draft SDF, 2007, p3).

Part of this process included the drafting of policies and plans to address three key strategic land use issues in the Metro, namely, Rural Management Policy and Plan; Densification Policy and Plan; and Urban Edge Policy and Plan. “The SDF has resulted in the identification of broad areas of land for the following purposes at a strategic level:

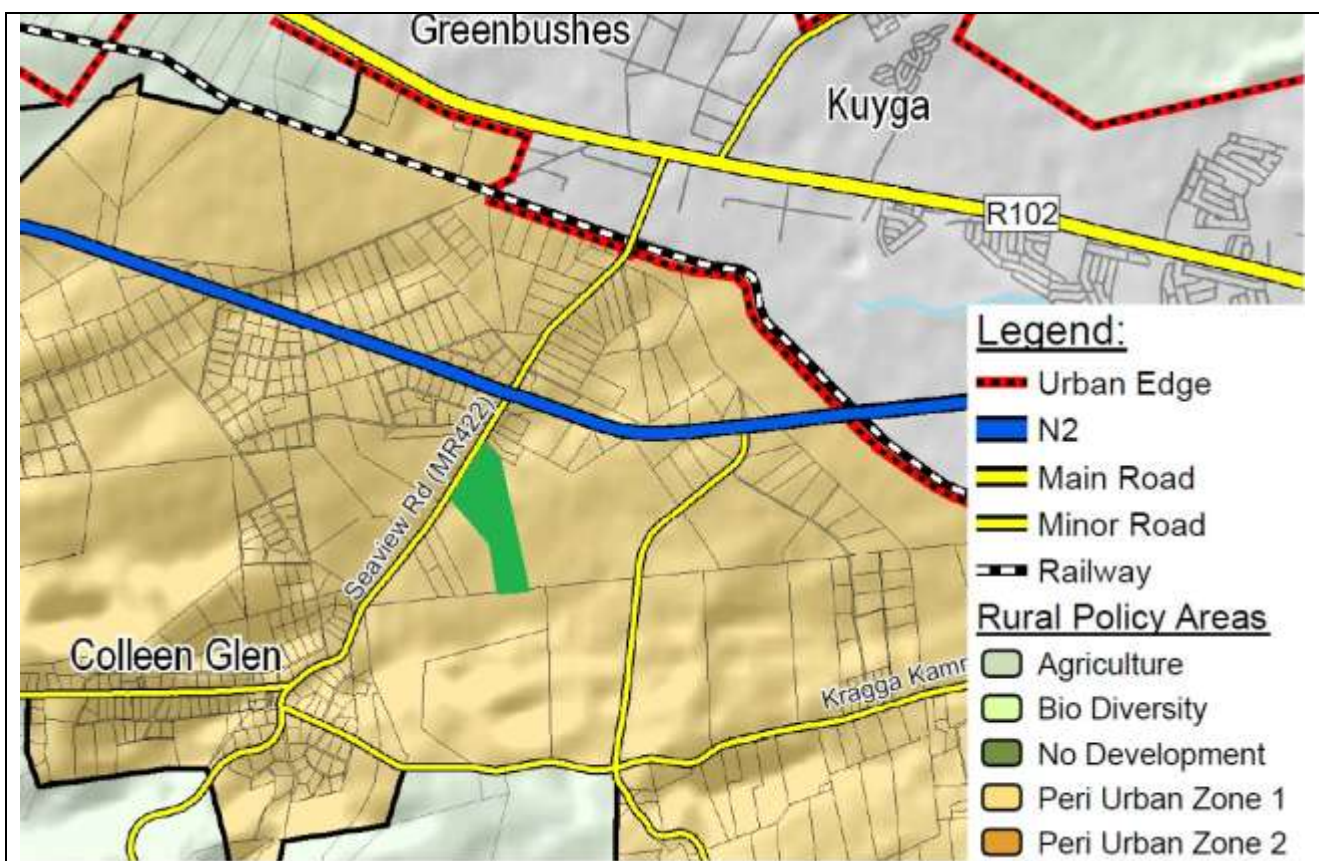
- Residential (housing)
 - Business (commercial)
 - Industrial
 - Agricultural, and
 - Social and Community services”
- (NMBM, Draft SEA of Draft SDF, 2007, p28)

The major infrastructure networks (transportation, potable water, sewage and electricity) formed a major structuring element of the SDF, based upon their associated Master Plans.

The Urban Edge Review process also identified areas within the boundaries of the NMBM that are most suitable for agriculture and included these areas in Agriculture promotion zones, which include the "large cadastral units or farms partially unspoilt and developed located on the northern periphery of the built up areas of Uitenhage, Despatch and Motherwell." (Draft Urban Edge Review Study - Urban Dynamics 2007).

Due to the inherent limitations of the agricultural potential of the area, Portion 62 of Farm 10 Little Chelsea does not fall within the Agriculture Promotion Zone, but rather in the **Peri-Urban Zone 1** (Hinterland) of the NMBM SDF. "The zone is characterized by cadastral units ranging from 1 hectare to larger portions of farm land located primarily on the western boundary of the zone. The portion of land is affected by arable and non-arable land capability in terms of agriculture production." (Draft Urban Edge Review Study - Urban Dynamics 2007).

Map 2.1 below shows the location of the proposed site (indicated in green), in relation to the NMBM Urban edge.



Map 2.1. Location of the site (in green) in relation to the NMBM Urban Edge.

The permitted uses for land included in Peri-Urban Zone 1 include "Agriculture, tourism, low density residential estate development, guest farms, golf estates, sports fields & service trades."

The Rural Land Use Management Policy (November 2007) notes, among others, the following with regard to this zone:

- The N2 freeway, Kragga Kamma Road, linking Colleen Glen to the City, Seaview Road and other minor roads are located in this zone.

- The zone can be provided with bulk water and electricity supply. No water-born sewerage or the treatment thereof is available in this zone.

With respect to density and subdivisions within this zone the Urban Edge Review Policy (November 2007) allows for:

- Minimum size of Subdivision permitted for new Subdivisions is 1, 8 ha.
- "Cluster and Space" development principle to be promoted.
- Minimum subdivision of 1.8 ha
- Maximum residential density of 2 units per 1.8 hectare.
- Gross density to be calculated over entire site/cadastral unit.
- Deviation permitted on special merit e.g. Servitudes for roads, services, rivers, physically severing the land.
- Maximum subdivision size of clustered footprint is 1500m²

In line with the above the applicant is proposing the development of low density rural residential erven, with erf sizes ranging from 1.8 ha to 2.5 ha. Based on the policy requirements for the area, two dwellings is permissible for each erf. The town planning layout and proposed subdivision plan for the development has been guided, among others, by the requirements of the NMBM Rural Land Use Policy (NMBM 2007).

Map 2.2 on the following page shows the provisional subdivision plan for the proposed development.

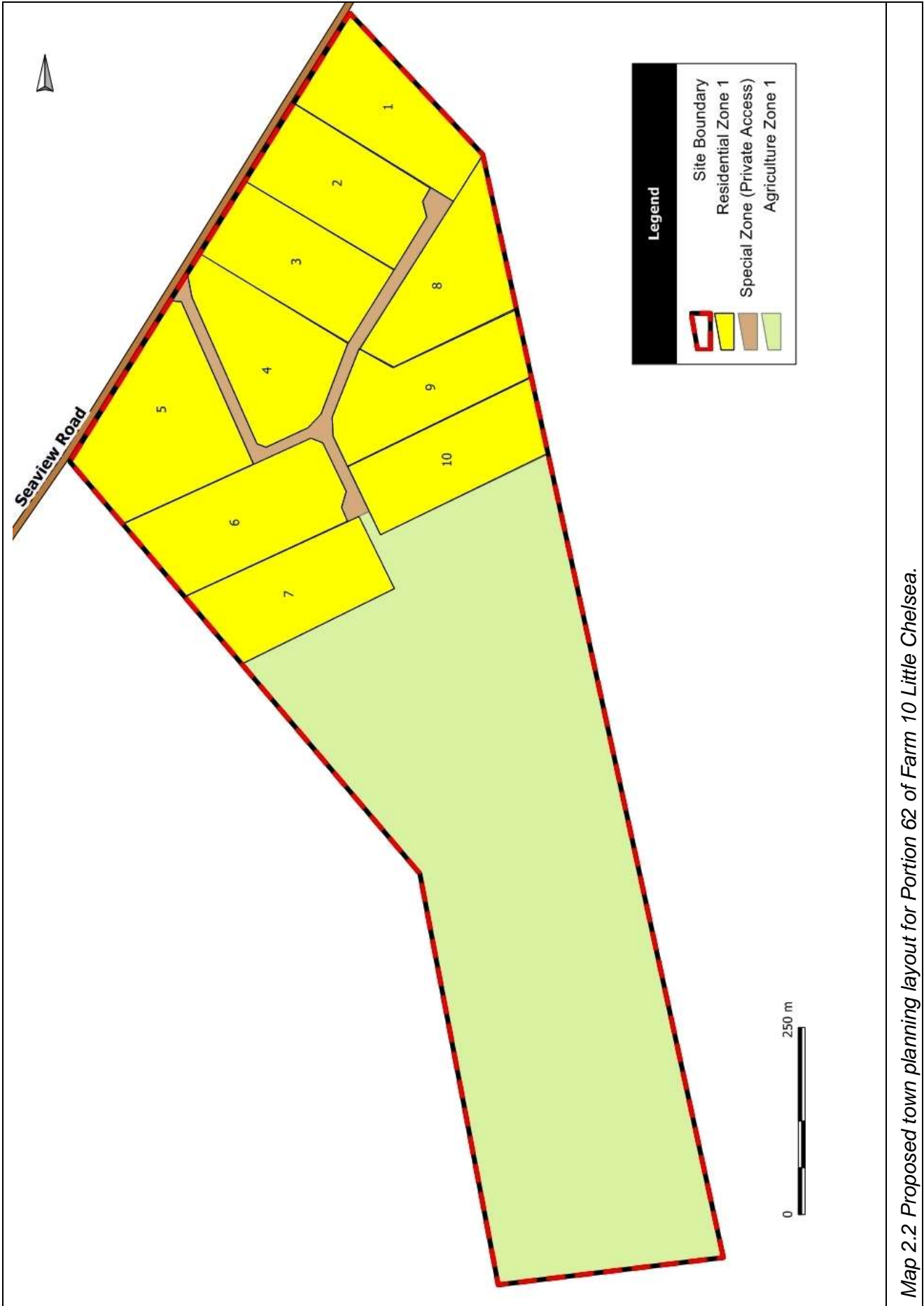
2.3 PROJECT OVERVIEW

The proposed development will entail the establishment of residential erven of varying sizes. The proposal can be summarized as follows:

- 10 erven varying in density from 1.8 – 2.5 ha's, with a maximum development footprint of 3000m² per erf
- Access roads within dedicated road reserves
- Stormwater management system (as required)
- Services infrastructure (water, sanitation, electricity)
- Retention of southern 22 ha portion as agricultural land

The project will thus entail (i) the clearing of vegetation from the development footprint areas to facilitate the construction of the residential units and, (ii) the construction of the infrastructure [access roads, water network, electrical network, sewage disposal system, and stormwater drainage, all of which will be done in accordance with the relevant specialist recommendations. The final position of the residential homes on the individual units will be determined by the outcome of the specialist studies as part of the EIA process.

Map 2.2 on the following page provides a provisional town planning layout for the proposed development.



Map 2.2 Proposed town planning layout for Portion 62 of Farm 10 Little Chelsea.

2.3.1 Subdivided Units

Erven

The area proposed for subdivision is confined to a 20.2 ha northern portion of the site. Individual erven will range in size from 1.8 to 2.5 hectares. The erven will be zoned for Residential 1 use; however the developable portions of individual erven will be determined based on the Environmental Assessment. While individual erven may be fenced in for security purposes and to control animal movement; this will be at the discretion of the individual owners and subject to the outcome of the specialist studies to be undertaken during the EIA process. The following erf sizes have been proposed in the preliminary town planning layout for the development:

Table 2.1 Town Planning erf sizes

Erf No.	Land Use	Proposed Zoning	Size	% of Area
1	Residential	Residential 1	1.18122	
2	Residential	Residential 1	1.8485	
3	Residential	Residential 1	1.8050	
4	Residential	Residential 1	1.9449	
5	Residential	Residential 1	2.5222	
6	Residential	Residential 1	2.1963	
7	Residential	Residential 1	1.8003	
8	Residential	Residential 1	1.8078	
9	Residential	Residential 1	1.8011	
10	Residential	Residential 1	1.8003	
	Private Access	Special Zone (Private Access)	0.9013	2.10
		Total Developed Area	20.2093	47.19
11	Agriculture	Agriculture 1	22.6172	52.81
			42.8266	100

Footprint & Design Guidelines

Based on the extract from the Rural Management Policy a maximum of two dwelling units are allowed per 1.8 ha portion, with a development footprint of 1 500m² per dwelling unit, totalling a residential footprint of 3000m² (two dwelling units). All residential infrastructure gardens, driveways, bulk services, homes, and outbuildings must be confined to this 3000m² area.

The area outside the 3000m² residential footprint may be used for agriculture and/or conservation in keeping with the area, with due consideration for biodiversity constraints on the site. i.e. no agricultural disturbance or animals should be allowed in sensitive areas as identified through the EIA process. No disturbance associated with residential development will be allowed outside the 3000m² footprints.

The Rural Management Policy provides for the following on subdivided erven in this zone:

- “...activities in keeping with the rural character of the area and distinctly different to agriculture or commercial farming.
 - Permitting uses in line with rural activity i.e. keeping of animals and small scale cultivation on a limited basis.”

Homeowners Association

It is proposed that a set of House Rules are established for the development, which will be overseen and enforced by a Homeowners Association. The house rules will provide guidelines regarding, amongst others:

- Waste handling and disposal practices (with specific reference to domestic waste).
- Management of sanitation infrastructure (emptying of conservancy tanks).
- Permissible land-use practices inside and outside development footprints.
- Conduct regarding sensitive portions of the site (e.g. wetlands).
- Specific requirements of the Environmental Authorisation, should it be issued.

2.3.2 Services Infrastructure

The preliminary services infrastructure information was obtained mainly from the Roads and Wet Services Report prepared by Jaco Spies of JJ Spies Civil Engineers.

Roads and Access

The permanent access to the proposed development will be off the existing tarred Seaview Road (road reserve 18.89m wide) adjacent to the north-western boundary of Portion 62 of farm 10 Little Chelsea. The entrance to the site is approximately 0.84 km south of the N2 National Road / Seaview Road intersection. Subject to the outcome of the EIA phase Traffic Impact Assessment (TIA), the extent of upgrading of the roads access system and transportation levies will be determined and confirmed with the NMBM and the District Roads Engineer.

Stormwater

The formal storm water system near the proposed development on Portion 62, Farm Little Chelsea No. 10, Port Elizabeth is considered to be poor or non-existing. In order to manage storm water drainage in a responsible way under post-development conditions, the storm water overland run-off on and from portion 62 of farm 10 shall be managed to be the same or less than under current pre-development conditions. The emphasis during the conceptual and detailed storm water design stages shall be to retard stormwater and, as far as practically possible, allow the water to form part of the existing natural drainage in the landscape.

Water

The proposed development will be supplied from the NMBM Greenbushes Reservoir with a Top Water Level (TWL) of 263m above Mean Sea Level (MSL) and a capacity of 27 Mega-litres. There is an existing 375mm diameter NMBM in Seaview Road. A 110mm diameter connection has to be made to the existing 375mm diameter NMBM water main in Seaview Road opposite the entrance to Portion 62 of farm 10 Little Chelsea. The applicant / developer will be liable to pay a levy or a proportionate contribution to NMBM regarding the upgrading of the bulk water supply.

Sanitation

Under the current conditions, each erf or entity of the residential development shall have its own water-tight conservancy tank with a capacity equal to at least 2.5 weeks of ADWF. Each owner of the respective residential erven or entity shall be liable for the effective maintenance of the foul sewer conservancy tank on his/her property and shall have and maintain an applicable agreement with a competent Contractor for the regular emptying of the conservancy tanks in accordance with the requirements of the NMBM. The design storage capacity of the conservancy tank on each residential site shall have an effective storage capacity of 23.625 cubic metres.

The effluent will mainly be treated by the upgraded Driftsands Waste Water Treatment Works or Fishwater Flats Wastewater Treatment Works as dictated by NMBM. Based on the current EIA and construction schedule, the proposed upgrading of the treatment works to accommodate 18MI per day should be completed by 2013. The preliminary total design Average Dry Weather Flow (ADWF) of the proposed residential development as a whole has been calculated to be 13.5 kl per day. The upgraded Driftsands Waste Water Treatment Works sewer works that could treat 18MI per day by 2013 will definitely have the capacity to accommodate the proposed residential development under discussion.

Electricity

The proposed development will be provided with electricity by tying into the municipal electricity supply. The development will connect to the nearest electrical substation. As confirmed by Mr Gavin Calico of the NMBM Electricity Division there is currently spare capacity at this substation so as to provide electricity to the proposed development.

Refuse collection

Each owner of the respective 44 4(properties will have to accept accountability for the effective management including the storing and collection of solid waste from his/her site. A refuse chamber has to be designed in accordance with the requirements of the NMBM. The refuse chamber must be accessible from a public road or a private road and should usually be constructed near the entrance to each site. The solid waste will be collected once a week from the refuse chamber on each individual site and be disposed of at a permitted land fill site unless otherwise directed by the Waste Management Division of the NMBM. The total volume of domestic solid waste to be generated under full post-development conditions has been calculated to be approximately 5.1 cubic metres per week for the 10 X residential erven.

2.4 PROJECT SCHEDULE

The following table provides a preliminary overview of the proposed project schedule and an indication of the anticipated approvals process.

Table 2.2 Proposed project schedule

ACTIVITY	ESTIMATED TIMING
Initiate Environmental Impact Assessment (EIA) Process	March 2012
I&AP review of Draft Scoping Report	May 2012
Submit Final Scoping Report and Plan of Study for EIA to DEDEAT for Approval	Early July 2012
Review of Draft EIA	October 2012
Submit Final EIA to DEDEAT for Approval	Early December 2012
Final Approval for EIA	Early 2013
Detailed Planning and Design Phase complete for civil services	Six months from date of Decision
Rezoning and other permit requirements	Two years from date of environmental authorisation
Commence Construction Activities for services and infrastructure	30 months from date of environmental authorisation

Construction Phase Completion for services and infrastructure	Twelve months from date of environmental authorisation
Individual Home Owners Construction	As per sales (estimate within 4 years from date of environmental authorisation)

2.5 JOB CREATION AND EMPLOYMENT OPPORTUNITIES

The total capital value for the project is estimated to be between R8m and R12m. The table below provides an overview of the anticipated direct and indirect employment opportunities that will be created during the construction and operational phases of the project.

Table 2.3: Estimated employment opportunities during the construction and operational phase of the project.

	Direct Employment	Indirect Employment
Construction Phase	20	10
Operational Phase	10	5

2.6 CONCLUDING REMARKS

- Alternative housing footprints and bulk services options are discussed in detail in Chapter Five of this report.
- The specialist studies forming part of the EIA phase of the assessment should include input from a traffic specialist regarding access to the site from the provincial road (Seaview Road).
- Written confirmation regarding the availability of bulk services from the NMBM will be provided in the EIA phase of the assessment