TRANSNET

freight rail

Basic Assessment for the proposed Port Nolloth Lighthouse – near Port Nolloth, Northern Cape

DRAFT BASIC ASSESSMENT REPORT

DEA Reference Number: 14/12/16/3/3/1/671
NEAS Reference Number: DEA/EIA/0001379/2012

CSIR Report No.:
CSIR/CAS/EMS/ER/2013/0001/B

FEBRUARY 2013

CSIR

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BASIC ASSESSMENT FOR THE PROPOSED PORT NOLLOTH LIGHTHOUSE – NEAR PORT NOLLOTH, NORTHERN CAPE

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February 2013

Report prepared for:
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Opportunity for review:

This Draft Basic Assessment Report is released for review by stakeholders. Review comments are to be submitted by 2 April 2013 to the address below:

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SUMMARY

Transnet Freight Rail – a division of Transnet SOC Limited (hereinafter referred to as TFR) is proposing to construct and operate a new lighthouse in Port Nolloth within the Richtersveld Local Municipality (hereinafter referred to as RLM) in the Northern Cape. The new lighthouse will be constructed at a more visible and suitable position on ERF 335, and will replace an existing aluminium-lattice lighthouse on the adjacent ERF 44 which has reached the end of its working life and will need to be decommissioned. The new lighthouse will comprise of an eleven metre concrete tubular structure which will support a lantern house and will be located closer to the shoreline on the original site of the 1909 lighthouse which was demolished in the 1970's.

Transnet is a state owned company which strives to deliver integrated and efficient services to promote economic growth within South Africa. Transnet, operating as an integrated freight transport company, comprises five operating divisions and is supported by two specialist units as indicated below:

Operating Divisions:

- Transnet Freight Rail;
- Transnet Rail Engineering;
- Transnet National Ports Authority;
- Transnet Port Terminals; and
- Transnet Pipelines.

Specialist Units:

- Transnet Capital Projects; and
- Transnet Property.

In terms of the NEMA EIA Regulations 2010 (as amended), the construction of the proposed Port Nolloth Lighthouse requires a Basic Assessment (BA) process, and an application for Environmental Authorisation has been submitted to the National Department of Environmental Affairs (DEA). The DEA Reference Number 14/12/16/3/3/1/671 and NEAS Reference Number DEA / EIA / 0001379 / 2012 have been assigned to this BA application.

PROJECT DESCRIPTION

The construction of the new lighthouse will comprise the following key activities:

- Decommissioning the existing aluminium lattice lighthouse;
- Demolishing the lean-to structure on site;
- Construction of the new concrete lighthouse tower;
- Construction of a lantern house which will be supported by the concrete tower;
- Connection to an existing engine room across Beach Street *via* a 220 V underground cable.

IMPACT ASSESSMENT

Heritage:

A heritage impact assessment found that the proposed activity will have a negligible impact on all generally protected heritage in the study area. The study found that a small structure next to the new lighthouse site, an explosive magazine, is believed to have been built in the early 20th century (confirmed to exist in 1937 by aerial photography) and is the only structure of any heritage significance and as such should continue to be conserved.

It was noted that the existing aluminium lattice lighthouse is less than 60 years of age and does not require any form of heritage permit for its removal. The study also found that the existing aluminium lighthouse appears as an odd structure and does not "read" as a lighthouse to the casual observer, and is without argument one of the most un-appealing structures within the context of this country's rich lighthouse heritage. The heritage specialist (Tim Hart, ACO Associates) states that the construction of a more formal and recognizable structure within the Transnet owned enclave will better landmark the status of a light house in the Port Nolloth area and add a feature of interest to the Beach Street precinct.

The site specific impact on heritage will be the demolition of a lean-to structure affixed to the south gable of the Transnet staff quarters. However it was found that the main bungalow is of very low heritage significance, and that the demolition of the lean-to will have no negative impacts at all. The study also mentions that this structure is dubiously greater than 60 years of age and is maintained, modernized and in the opinion of the specialist not worthy of inclusion of a regional heritage register nor is it worthy of formal grading.

In terms of archaeological heritage, the heritage study states that whilst coastal shell middens are prolific around Port Nolloth, indications are that the study area is too transformed to be considered archaeologically sensitive.

Based on the above findings, the specialist has recommended that as no heritage sources will be either directly or indirectly impacted on; there is no reason why the proposed activity should not take place from a heritage perspective. The specialist has further stated that the design of the proposed lighthouse will add value and interest to the streetscape and the town at large.

Visual:

The Visual Impact Assessment report indicates that the, visual receptors in Port Nolloth include residents, surrounding farms, the Richtersveld National Park and motorists who may potentially be exposed to the constructional and operational activities associated with the new lighthouse. These receptors are explained in further detail below:

Port Nolloth residents – Exposure will be the highest for residents due to their close proximity to the proposed site. However, the study states that since residents are used to having a lighthouse in Port Nolloth, it is likely that the overall visual intrusion will be low since it will blend in well with the surroundings. It is also noted that the new lighthouse will **be more aesthetically** pleasing than the existing lattice structure in that it resembles more traditional lighthouse architecture. The proposed tower is higher and broader than the original structure and will be in a slightly different locality (35 m from the existing tower), which means that sea views of a small number of residents (particularly if they are highly exposed to the new development) will potentially be highly intruded on or obscured (while others who are currently affected by the existing lighthouse structure may now have improved views of the sea). It should also be noted that a different set of residents (although probably largely overlapping due to the small change in position of the lighthouse) may be affected by the new light at night from those affected by the current light and will have to adapt to this impact on their nightscape.

Surrounding farms – It was stated that visual intrusion for visual receptors on surrounding farms will be low since the existing lighthouse will be replaced by an aesthetically improved lighthouse.

Richtersveld National Park – The study found that these receptors are more than 5 km from the lighthouse site and are unlikely to notice the difference between the existing and new lighthouse.

Motorists – The study suggests that the proposed lighthouse is likely to be accepted as part of the coastal landscape by tourists and other motorists and visual intrusion will be low.

In addition to the visual receptors above, the following impacts were identified in the Visual Impact Assessment:

- Impact of intrusion of construction activities on sensitive viewers – It was recommended by the specialist that the following conditions be adhered to as mitigation for this impact:
  - Project developers should demarcate construction boundaries and minimise areas of surface disturbance.
  - The contractor should maintain good housekeeping on site to avoid litter and minimise waste.
  - Night lighting of the construction sites should be minimised within requirements of safety and efficiency.
  - Dust generation should be minimised as much as possible as this can also increase the visibility

of the construction phase significantly.

- Impact of intrusion of the proposed lighthouse on views of sensitive visual receptors – it was further recommended that the following mitigation measure be applied for this impact:
  - Maintenance of the lighthouse exterior is important to ensure a positive visual impact.

The visual study concluded that the new lighthouse is in essence an "upgrade" to the existing lighthouse. The fact that lighthouses are expected features of a coastline environment means that the overall visual intrusion will be of low impact and significance. Maintenance of the lighthouse exterior will ensure a positive visual impact for most visual receptors in the region, with only a partial change in views for some residents in Port Nolloth.

EAP'S RECOMMENDATION

Based on the findings of this Basic Assessment process, it is the opinion of the Environmental Assessment Practitioner, that there are no negative impacts that should constitute "fatal flaws" from an environmental perspective, and thereby necessitate substantial re-design or termination of the project. Based on the findings of this Draft Basic Assessment report and given the need and context of the proposed project, it is the opinion of the Environmental Assessment Practitioner that the benefits of the project far outweigh the negative environmental impacts.

In order to avoid and/or manage potential negative impacts, and enhance the benefits, an Environmental Management Programme (EMPr) has been compiled. This Project Specific EMPr is a dynamic document that should be updated regularly and provides clear and implementable measures for the establishment and operation of the proposed Port Nolloth Lighthouse. It is our recommendation that all the mitigation measures be implemented for the proposed project.

Provided that the specified mitigation measures are applied effectively, it is proposed that the project receive environmental authorisation in terms of the EIA Regulations promulgated under the National Environmental Management Act (NEMA).

REVIEW PROCESS

As part of the Basic Assessment process, all Interested and Affected parties are invited to provide comment on this Draft Basic Assessment Report. The report is available for public review at the Richtersveld Local Municipality and Namakwa District Municipality. An electronic version of the report is also available on the project website at:

http://www.csir.co.za/eia/Port Nolloth Lighthouse.html

The report is available for a 40-day (excluding public holidays) commenting period from the date of release. All comments and responses should be submitted to the contact below by **2 April 2013**. All comments received will be considered and included in the Final Basic Assessment Report which will be submitted to the National Department of Environmental Affairs for decision making.

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Summary of where requirements of Section 22 of the 2010 NEMA EIA Regulations (GN R 543) are provided in this Basic Assessment Report.

SECTION 22 REGULATION	YES / NO	SECTION IN BAR
1) The EAP managing an application to which this Part applies must prepare a basic assessment report in a format that may be determined by the competent authority. 2) A basic assessment report must contain all the information that is necessary for the competent authority to consider the application and to reach a decision contemplated in regulation 25, and must include -		
• details of – i. the EAP who prepared the report; and	**Yes**	Appendix H
ii. the expertise of the EAP to carry out basic assessment procedures;	**Yes**	Appendix H
• a description of the proposed activity;	**Yes**	Section A
• a description and a map of the property on which the activity is to be undertaken and the location of the activity on the property, or, if it is - i. a linear activity, a description of the route of the activity; or ii. an ocean-based activity, the coordinates within which the activity is to be undertaken;	**Yes**	Section A, Appendices A & D
• a description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity;	**Yes**	Sections A & B and Appendix D
• an identification of all legislation and guidelines that have been considered in the preparation of the basic assessment report;	**Yes**	Sections A and Appendix D
• details of the public participation process conducted in terms of regulation 21(2)(a) in connection with the application, including - i. the steps that were taken to notify potentially interested and affected parties of the proposed application; ii. proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the proposed application have been displayed, placed or given; iii. a list of all persons, organisations and organs of state that were registered in terms of regulation 55 as interested and affected parties in relation to the application; and iv. a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues;	**Yes**	Appendix E
• a description of the need and desirability of the proposed activity;	**Yes**	Section A
• a description of any identified alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity;	**Yes**	Section A

SECTION 22 REGULATION	YES / NO	SECTION IN BAR
• a description and assessment of the significance of any environmental impacts, including - i. cumulative impacts, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the activity; ii. the nature of the impact; iii. the extent and duration of the impact; iv. the probability of the impact occurring; v. the degree to which the impact can be reversed; vi. the degree to which the impact may cause irreplaceable loss of resources; and vii. the degree to which the impact can be mitigated;	**Yes**	Section D & Appendix F
• any environmental management and mitigation measures proposed by the EAP;	**Yes**	Sections D & E and Appendix G
• any inputs and recommendations made by specialists to the extent that may be necessary;	**Yes**	Section D and Appendices D & G
• a draft environmental management programme containing the aspects contemplated in regulation **33**;	**Yes**	Appendix G
• a description of any assumptions, uncertainties and gaps in knowledge;	**Yes**	Appendix D
• a reasoned opinion as to whether the activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation;	**Yes**	Section E
• any representations, and comments received in connection with the application or the basic assessment report;	**Yes**	Appendix E
• the minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants;	**Yes**	Appendix E
• any responses by the EAP to those representations, comments and views;	**Yes**	Appendix E
• any specific information required by the competent authority; and	**N/A**	
• any other matters required in terms of sections 24(4)(a) and (b) of the Act.	**N/A**	

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

	(For official use only)
File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, 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, 2010 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. This report format is current as of **1 September 2012**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. 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.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. 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.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. 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.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	YES	NO✓

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

1.1 INTRODUCTION AND BACKGROUND:

Transnet Freight Rail, a division of Transnet SOC Limited (hereafter referred to as TFR), proposes to construct a lighthouse on ERF 335 (Transnet owned land) in Port Nolloth, Northern Cape. The 21 digit Surveyor General code for the property is C05300100000033500000. As part of the new lighthouse construction, an existing aluminium lattice lighthouse structure on the adjacent ERF 44 (Transnet owned land) will be demolished as it has reached the end of its life span and needs to be replaced. The proposed new concrete lighthouse tower will be longer lasting and will more importantly serve as a better navigational marker for mariners, and will direct them to the port safely. The existing lighthouse on ERF 44 is 34 years of age, and replaced an earlier cast iron structure which was commissioned in 1909 and demolished in the 1970's.

TFR is one of five operating divisions within Transnet specialising in the transport of freight. The company also maintains an extensive rail network across South Africa which connects with other rail networks in the sub-Saharan region, with rail infrastructure representing approximately 80% of Africa's total rail network.

The CSIR Environmental Management Services (EMS) has been appointed by TFR as the independent Environmental Assessment Practitioners to undertake the Basic Assessment (BA) process for the proposed project.

1.2 EMPLOYMENT OPPORTUNITIES:

Direct and indirect employment opportunities across various skill levels will potentially be created during the construction and operation phases of the project. An estimate of the potential employment opportunities that could result from the project are presented in **Table 1** below:

Table 1: Estimated potential employment opportunities.

Project phase	Amount	Skill class			Term
		Skilled	Semi-skilled	Unskilled	
Construction (Direct Transnet)	27	1 Contract Manager	1 Site Agent & 1 Supervisor	25 Construction Workers	5 Months
Construction (Indirect Sub Contractors)	22	1 Contract Manager	2 Supervisors	30 Construction Workers	3 Months
Operation (direct)	1		1		For Lighthouse Lifespan

1.3 INFRASTRUCTURE:

A total area of approximately 792 m^2 is available on ERF 335 for the new lighthouse, of which a maximum of 36 m^2 will undergo physical alteration for the construction of the lighthouse tower. The proposed lighthouse

tower will be erected adjacent to the existing staff quarters. An existing lean-to structure on the gable wall of the staff quarters on ERF 335 will be demolished to accommodate the new lighthouse on site.

The establishment of the new lighthouse will entail the following:

1.3.1 Site clearing and preparation: The lean-to structure on site will need to be demolished to accommodate the new lighthouse tower. Since the site is fully transformed (i.e. a levelled artificial/concrete surface) no vegetation clearance will take place.

1.3.2 Civil works: The main civil works and corresponding timeframes are indicated below –

- Establish and clear site – Including demolitions of the existing lighthouse and the lean-to structure on site (approximately 3 weeks).
- Terrain Levelling – Terrain levelling will be minimal as the site is flat.
- Excavations and casting foundations for the new lighthouse tower (approximately 4 weeks).
- Placement of the concrete tower and finishes (approximately 10 weeks).
- Access and inside roads/paths – The site can be accessed directly from an existing road (Beach Road) heading south from the town of Port Nolloth, and as such no new access roads will need to be constructed.

1.3.3 Installation of lighthouse components: The key components of the lighthouse will include –

- **Concrete tower:** The new lighthouse structure will comprise a concrete tower with an internal diameter of approximately 4 m and a height of approximately 11 m. The tower will be capped with a concrete slab approximately 7 m in diameter which will in turn support the lantern house.

- **Lantern house:** The lantern house will comprise a glass fibre construction and is estimated to be 2.8 m in diameter and 2.7 m high. Access to the lantern house will be via an external door at ground level, an internal metal cat ladder and a trap door in the top slab leading into the lantern house. The lantern house will comprise a VRB 25 beacon which is a rotating beacon covering a range of between 15 to 22 nautical miles. The beacon will comprise 6 or 8 equally spaced Fresnel lenses rotating around a stationary lamp of up to 100 watts, generating 6 to 8 discrete pencil beams.

- **Staff quarters:** The new lighthouse will be constructed adjacent to existing staff quarters on site (ERF 335). These staff quarters will serve lighthouse staff during operation and maintenance periods. An existing lean-to structure attached to the current staff quarters will be demolished to accommodate the new lighthouse. The lean-to structure is approximately 6340 x 350 mm in size and comprises plastered brick walls, a concrete slab floor, a corrugated asbestos cement single pitch roof, a double door and two windows.

- **Connection to engine room:** The new lighthouse will be connected to an existing adjacent engine room located on ERF 45 (Transnet owned land), which also powers the existing lighthouse on ERF 44. Connection of the existing engine room to the new lighthouse will be via a 220 V underground cable which will supply power to the new lighthouse. There are no planned upgrades for this engine room as part of the new lighthouse construction.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
GN R.544 Item 18 (iv): The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit,	The new lighthouse will be constructed within 100 m inland of the high-water mark of the sea, and will require fill material of more than 5 cubic metres for the foundation and platform areas as part of the

pebbles or rock from: (iv) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater.	construction process. Therefore, this activity is triggered.

Note from CSIR: The original application for Environmental Authorisation submitted to the National Department of Environmental Affairs (DEA) by CSIR listed two activities which triggered the need for a Basic Assessment namely GN R.544 Item 18(iv) as indicated above; and GN R.546 Item 16(iii), (iv), iii: (cc) pertaining to a layout with a footprint greater than 10 square metres encroaching within 32 metres of a watercourse (Appendix J.4). The application followed a precautionary approach in identifying the table of listed activities as no site visits were conducted at the time. Following site visits during the project initiation phase, it was found that no watercourses occurred within 32 metres of the proposed development. Subsequently, the associated listed activity (i.e. GN R.546 Item 16(iii), (iv), iii: (cc)) has been omitted from this Draft BAR and a new application has been submitted to National DEA for the listed activity identified above.

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 as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) 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.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)

The site selection process was based on the optimal location of the lighthouse in terms of marine safety i.e. there is little lateral flexibility for positioning the new light house as it fulfils an essential navigation role. In addition, the site on which the lighthouse is proposed is owned by the project developer and multi criteria site assessments reveal that no fatal flaws exist which should prevent the proposed development on site. This is therefore the only option considered further in this report.	S 29°14'59.6"	E 16°52'4.5"
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

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.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The preferred layout was identified following initial discussions and screening of alternatives with the engineering and navigational design teams within Transnet. . The preferred layout selection was based on an optimal location of the lighthouse from a navigational risk perspective in conjunction with minimal environmental disturbance.	S 29°14'59.6"	E 16°52'4.5"
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)

Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

Alternative 1 (preferred alternative)
Marine lens rotating beacon: A rotating VRB 25 beacon will be housed in the lantern house. The beacon covers a range between 15 to 22 nautical miles and comprises between 6 and 8 equally spaced Fresnel lenses rotating around a stationary lamp of up to 100 watts which will generate 6 to 8 pencil beams emanating from the lantern house. The Fresnel lens of the beacon is designed to maximise the useful output from industry-standard marine signal lamps. The lens carousel is rotated by a direct drive electronically commutated motor which provides plenty of torque whilst only consuming 1-2 watts of energy. To ensure maximum lamp life, consistent output intensity and minimum energy consumption, the lamp voltage is regulated using Pulse-Width-Modulation. This ensures that even if the input voltage ranges from 11-20 Volts, the RMS voltage at the lamp will never exceed 12 VDC. During daylight hours, the lighthouse itself will act as a day-mark when the light of the lantern house is not reflected.
Alternative 2
Alternative 3

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Note from CSIR: No other alternatives have been considered.

Alternative 1 (preferred alternative)		
Alternative 2		
Alternative 3		

e) No-go alternative

No other feasible alternatives exist and none are being assessed in this basic assessment report. The site, layout, design and technology options being assessed through this Basic Assessment are the only alternatives considered suitable for a project of this nature

If the project does not proceed, the site will remain unchanged and there will be no opportunities for temporary and permanent employment created through this project. In addition, mariners will be unable to safely access the port waters in the absence of a visible day-mark/lighthouse. This alternative is included as a baseline in this report, against which the project impacts are assessed.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:		Size of the activity:
Alternative A1[1] (preferred activity alternative)		36 m^2
Alternative A2 (if any)		m^2
Alternative A3 (if any)		m^2

or, for linear activities:

Alternative:		Length of the activity:
Alternative A1 (preferred activity alternative)		m
Alternative A2 (if any)		m
Alternative A3 (if any)		m

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

Alternative:		Size of the site/servitude:
Alternative A1 (preferred activity alternative)		792 m^2
Alternative A2 (if any)		m^2
Alternative A3 (if any)		m^2

4. SITE ACCESS

Does ready access to the site exist?	YES✓	NO
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

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.

Note from CSIR: The site can be readily accessed from Beach Street (Refer to Appendix A.1 of this Draft BAR for the Locality Map depicting roads near the site). As such, no new access roads are planned.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

[1] "Alternative A.." refer to activity, process, technology or other alternatives.

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s;)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (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).

- **Note from CSIR: Refer to Appendix A.1 of this Draft BAR for the Locality Map.**

6. LAYOUT/ROUTE PLAN

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:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

- **Note from CSIR: Refer to Appendix A.2 of this Draft BAR for the Layout/Route Plan.**

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- 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 infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

- **Note from CSIR: Refer to Appendix A.3 of this Draft BAR for the Sensitivity Map.**

8. SITE PHOTOGRAPHS

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 report**.** It must be supplemented with additional photographs of relevant features on the site, if applicable.

- **Note from CSIR: Refer to Appendix B.1 of this Draft BAR for colour photographs from eight major compass directions, and Appendix B.2 of the Draft BAR for additional photographs of features on site.**

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 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.

- **Note from CSIR: Refer to Appendix C of this Draft BAR for the Facility illustrations of the lighthouse tower and site layout plan.**

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES✓	NO	Please explain
The current land use zoning according to the IDP records is residential. No rezoning is required for the activity to commence as the property for the proposed project belongs to Transnet and the activity is therefore permitted in terms of the property's existing land use rights. Furthermore, the activity is not a new development as it is a continuation of an already existing lighthouse which has reached the end of its current life span.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES✓	NO	Please explain
The proposed development promotes sustainable development; it complies with the provision of high quality infrastructural development that will contribute to marine safety; and it facilitates skills transfer through temporary and permanent job opportunities created through the construction and operational phases of the project.			
(b) Urban edge / Edge of Built environment for the area	YES✓	NO	Please explain
The site location is currently zoned as residential according to IDP records. According to the SDF (Richtersveld Municipality), the proposed development falls within a residential core of Port Nolloth which is identified for urban expansion for the prevention of urban sprawl. In addition, the proposed lighthouse is a continuation of an existing lighthouse in close proximity which has reached the end of its life span. As such, construction of the proposed lighthouse will not significantly alter the existing urban structure of the area.			

(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO✓	Please explain
The proposed development serves as an upgrade to an already existing development. Whilst the existing lighthouse is not accounted for in the current IDP (Richtersveld Local Municipality – RLM), it will be flagged in the next report to council to allow for amendment (Please refer to meeting minutes with RLM, Appendix E). The IDP also promotes sustainable development through strategic management objectives including job creation, infrastructural development, and attracting local and international investment. The proposed development conforms to these principles. The SDF (RLM) promotes the containment of urban sprawl through densification and infilling of urban areas to maximise the use of existing infrastructure. According to the SDF, Port Nolloth comprises a primary node characterised by a high concentration of urban development and services. The proposed development conforms to the aforementioned principles as it can be viewed as an upgrade to an existing facility situated against a central residential core of Port Nolloth already identified for urban expansion.			
(d) Approved Structure Plan of the Municipality	YES✓	NO	Please explain
There is no formal approved structure plan for RLM. As a consequence, the SDF will be implemented as a forward planning policy document for urban development in the area. As indicated above, the proposed development falls within the urban edge. The Municipality can review the proposed development and flag this to council for amendment until such time an approved structure plan is in place (Please refer to meeting minutes with RLM, Appendix E).			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO✓	Please explain
The proposed development will fit into the EMF (Namakwa District) in terms of the Integrated Coastal Management Act which addresses disaster management at the coast. This project will mitigate some of these risks from a marine safety point of view. The proposed development will occur on an already existing transformed/artificial surface within a high density urban area, and as such will not compromise any of the environmental priority areas as identified in the EMF.			
(f) Any other Plans (e.g. Guide Plan)	YES✓	NO	Please explain
According to the Northern Cape Department of Environment and Nature Conservation (NDEC) annual performance plan 2012/13, the department implements and functions under several legislative mandates of which the Integrated Coastal Management Act is regarded as one of the most important legal mandate. In line with this, the proposed development will contribute to risk reduction from a marine navigation safety perspective.			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES✓	NO	Please explain
Should this application be approved by DEA, the construction phase will probably only be completed during the second half of 2013. Whilst the IDP does not currently account for the proposed development, the Richtersveld municipality has indicated that the proposed development will be taken council for inclusion into the IDP			

4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES✓	NO	Please explain
The proposed lighthouse development will reduce risks from a marine safety point of view, thereby favouring this development from a national marine safety perspective. The proposed lighthouse would also be keeping in line with previous lighthouse developments in the area over the past few decades i.e. the construction of the previous cast iron and aluminium lattice lighthouses. Transnet identified the need for a strategically located, longer lasting concrete lighthouse which will be located further seaward from the existing aluminium lattice structure. I&AP's were mainly concerned about the visual impact of the light emanating from the lantern house and the visual intrusion of the concrete tower. The new location of the lighthouse further seaward will result in a reduced light spill from the lantern house – however this will be minimal due to a very slight difference in locality in relation to the existing lighthouse. In addition, the lantern house will be blanked off on the landward side to prevent the visual impact of the lights for those residing on land. It should however be noted that a different set of residents (although probably largely overlapping due to the small change in position of the lighthouse) may be affected by the new light at night from those affected by the current light and will have to adapt to this impact on their nightscape. In terms of visual intrusion of the tower, a Visual Impact Assessment (Appendix D) for the new lighthouse states that since residents are used to having a lighthouse in Port Nolloth it is likely that the overall visual intrusion will be low since it will blend in well with the existing environment and surroundings. It was also noted that the new lighthouse will be more aesthetically pleasing than the existing lattice structure in that it will resemble more traditional lighthouse architecture. The new tower will be slightly larger than the original structure and will be in a slightly different locality (35 m from the existing tower), which means that sea views of a small number of residents (particularly if they are highly exposed to the new development) will potentially be highly intruded on or obscured (while others who are currently affected by the existing lighthouse structure may now have improved views of the sea). > In summary the proposed development will meet a key national priority in terms reducing navigational safety risk, however, given the low levels of concern from local stakeholders/communities regarding a new light house in the area, as well as minimal visual impacts as highlighted above, it can be concluded that the project does not seem to be "inappropriate" to the Port Nolloth environment and surroundings.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES✓	NO	Please explain
The proposed development will draw on existing supplies of water and power so no new infrastructure will be required in this regard (Please refer to meeting minutes with RLM, Appendix E).			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES✓	NO	Please explain
The proposed development will draw on existing supplies of water and power so no new infrastructure and services will need to be prioritised by RLM in this regard (…Meeting minutes with RLM, Appendix E).			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO✓	Please explain
No. The project is being developed to reduce marine navigational risk whilst replacing an existing structure which has reached the end of its current life span.			

8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES✓	NO	Please explain
The proposed lighthouse development is keeping in with the surrounding environment. According to the Richtersveld SDF, the property is noted as residential land. In addition, the proposed lighthouse would also be keeping in line with previous lighthouse developments in the area over the past few decades i.e. the construction of the previous cast iron and aluminium lattice lighthouses. The site for the proposed lighthouse can be easily accessed from Beach Road; hence the construction of new access roads will not be required. In terms of gradient, the surface area of the site is level and is preferred for the construction of the new lighthouse as the need for extensive earthworks will be greatly reduced. The site surface also comprises an artificial (i.e. concrete) surface and will thereby minimise negative environmental impacts.			
9. Is the development the best practicable environmental option for this land/site?	YES✓	NO	Please explain
The proposed development is considered to be the best practicable environmental option for this site/land. The proposed site comprises a built environment with a transformed artificial surface. This site previously supported a cast iron lighthouse which was decommissioned in the 1970's as it had reached the end of its lifespan. As such, biophysical disturbance from an environmental point of view will be minimal as the site is already a modified built environment. In addition, the relocation of the lighthouse further seaward on the proposed site will result in reduced light spill from the lantern house for the residents on land – however this will be minimal due to a very slight difference in locality in relation to the existing lighthouse.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES✓	NO	Please explain
The proposed project is a continuation of an already existing lighthouse and will occupy an already transformed surface that previously supported the cast iron lighthouse which was demolished in the 1970's. As such the biophysical disturbance on the environment will be minimal with no environmental "fatal flaws". The relocation of the proposed lighthouse further seaward will reduce the spill of the light emanating from the lantern house for those residing on land (in relation to the existing lighthouse which is located further inland) – however this effect will be minimal due to a very slight difference in locality in relation to the existing lighthouse. The new lighthouse has the potential to add value to the surrounds and the Beach Street streetscape with proper architectural input, and will better represent the country's rich lighthouse heritage as compared to the existing "aesthetically un-appealing" aluminium structure. In addition, the proposed project will more importantly reduce risk and improve marine safety in Port Nolloth by guiding marine vessels safely to the port, and it hoped that can be used as catalyst to stimulate investment into the local economy.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO✓	Please explain
The proposed development will merely serve as a continuation of an already existing lighthouse. The current lighthouse has reached the end of its life span and needs to be replaced. As such, the proposed development will not set precedence for similar developments in Port Nolloth.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO✓	Please explain
The construction and operation of the proposed lighthouse will take place in line with relevant national specifications and standards. The proposed project will also be taking place on Transnet owned land and will not impact on the surrounding area. Based on this, no person's rights will be negatively affected.			

13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO✓	Please explain
The proposed activity will fall within the urban edge of Port Nolloth as determined by the local municipality and will purely serve as a continuation of an already existing activity i.e. the operation of the existing aluminium lattice lighthouse.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO✓	Please explain
No. The project does not form part of the SIPs however it is strategically important to reduce navigational risk to vessels entering and leaving the Port.			
15. What will the benefits be to society in general and to the local communities?			Please explain
Job creation in the construction phases: approximately 49 direct and indirect employment opportunities will be created during the construction phase of the project. Only one skilled individual from Transnet will be required to operate the lighthouse. More importantly, the new lighthouse will reduce risks from a marine safety point of view. There also exists the possibility of secondary benefits to surrounding local industries e.g. accommodation requirements during construction phase, etc.			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
N/A			
17. How does the project fit into the National Development Plan for 2030?			Please explain
The national development plan proposes that people enjoy a safe and active life at home, school and work. Approval of this Basic Assessment project will indirectly tie in with the safety aspect in the sense that risks will be reduced and marine safety improved for the mariners in Port Nolloth. Additionally, the potential for investment into the local economy due to a safer operational Port can be regarded as a key benefit associated with this development and does tie in the 2030 development plans in South Africa.			

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

NEMA Section 23(2): The general objective of integrated environmental management is to:	**Addressed in this Basic Assessment?**	**Description on how the objectives of IEM have been taken into account:**
(a) promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment;	Yes	Refer to question 19 below.
(b) identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2;	Yes	This Basic Assessment report identifies, predicts and evaluates the impacts associated with the proposed development as described in section 23(2)(b).
(c) ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them;	Yes	As part of this Basic Assessment, the EAP has identified, assessed and provided mitigation measures for potential impacts (refer to Section D of this report).
(d) ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment;	Yes	Refer to Appendix E of this report.
(e) ensure the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment; and	Yes	The findings and mitigation measures of the EAP and specialists have been considered and incorporated into the Environmental Management Programme (EMPr) for this project (refer to Appendix G of this report).
(f) identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.	Yes	A detailed EMPr has been compiled for the proposed project to ensure that potential negative impacts are minimised and potential positive impacts are enhanced (refer to Appendix G of this report).

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.
The principles of NEMA have been considered in this Basic Assessment through:- ➢ Compliance with the requirements and fundamental principles derived from relevant legislation and government documents in undertaking the Basic Assessment and EMPr. ➢ Implementation of the principles of sustainable development through ensuring mitigation measures for unavoidable impacts or impacts which cannot be remedied, in order to minimize the impact. ➢ Ensuring that the successful implementation and appropriate management of this project will aid in achieving the principle of minimization of pollution and environmental degradation. ➢ Undertaking the Basic Assessment process in an inclusive and transparent manner. ➢ Making great efforts to involve interested and affected parties, stakeholders and relevant Organs of State in the process such that an informed decision regarding the project can be made by the Competent Authority.

11. 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	Applicability to the project	Administering authority	Date
National Environmental Management Act (Act 107 of 1998), as amended (NEMA), and the 2010 EIA regulations published in Government Notice R544 on the 18 June 2010 Government Gazette 33306 (as amended).	These Regulations contain the relevant listed activities that were triggered, thus requiring a Basic Assessment. Section 1b of this Basic Assessment Report details the listed activities specific to the proposed project.	National Department of Environmental Affairs	18 June 2010
National Environmental Management Act (Act 107 of 1998).	The construction and operation of key components of the proposed project will require the implementation of appropriate environmental management practices.	National Department of Environmental Affairs	19 November 1998
National Heritage Resources Act (NHRA) (Act 25 of 1999).	The proposed project will require a permit from the South African Heritage Resources Agency (SAHRA) for demolishing the lean-to structure on ERF335, as the structure is dubiously older than 60 years of age.	South African Heritage Resources Agency	1999
Integrated Environmental Management (IEM) guideline series published by DEA (various documents dated from 2002 to present).	The IEM Guideline series will provide guidance on conducting and managing all phases and components of the required Basic Assessment and public participation processes, such that all associated tasks are performed in the most	National Department of Environmental Affairs	2002 - present

	suitable manner.		
National Environmental Management Waste Act (Act 59 of 2008).	General wastes will be produced mainly during the construction phase of the project and will require proper management.	National Department of Environmental Affairs	6 March 2009
National Environmental Management: Air Quality Act (Act 39 of 2004).	Demolishing and construction activities may result in the unsettling of, and temporary exposure to, dust. Appropriate dust control methods will need to be applied.	National Department of Environmental Affairs	19 February 2005

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?
If YES, what estimated quantity will be produced per month?

YES✓	NO
Approximately 31 m^3 material from excavations, demolishing the lean-to structure and decommissioning of the existing lighthouse will be produced once-off within the first month.	

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

- Excavated material will be re-used on site where possible. Excavated material that cannot be re-used will be collected by contractors and disposed off at registered landfill sites in Port Nolloth.
- Demolishing waste from removal of the lean-to structure on site will be re-used in construction where possible. Surplus demolishing waste that cannot be re-used will also be disposed off at registered landfill sites in Port Nolloth. The corrugated asbestos roof sheeting from the lean-to will be collected and disposed off at a registered hazardous landfill facility using an accredited services provider.
- The aluminium lattice structure from decommissioning of the existing lighthouse will be recycled or disposed off at a registered landfill site in Port Nolloth as applicable.

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

Excavation/demolishing material from the construction phase will be re-used on site where feasible as explained above. Surplus waste which cannot be re-used on site will be collected and disposed off at an approved waste disposal sites and/or recycling facilities as explained above.

Will the activity produce solid waste during its operational phase?
If YES, what estimated quantity will be produced per month?
How will the solid waste be disposed of (describe)?

YES	NO✓

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

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

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 NEM:WA?	YES	NO✓

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

- **Note from CSIR: The activity will not produce solid waste during the operational phase. The construction phase will produce excavation, demolishing and domestic waste as explained above. Part of the demolishing waste in the construction phase will comprise corrugated asbestos roof sheeting from the existing lean-to structure on site which is considered hazardous. However, due to the fact that the asbestos requiring removal is once-off and falls below acceptable thresholds (i.e. approximately 0.18 m^3 at a maximum), it is not listed as a waste management activity that can have a detrimental effect on the environment in GNR 1113, 2010. It is therefore the opinion of the EAP and waste specialist consulted that this does not warrant the need for a full EIA/waste licence application. However, it has been recommended by the waste specialist that the asbestos-containing sheeting be removed in accordance with Section 21 of the Asbestos Regulations, 2001 (under the Occupational Health and Safety Act, 1993) (Refer to Appendix J.2 for electronic correspondence with the waste specialist).**

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	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. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	NO✓
If YES, what estimated quantity will be produced per month?		
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	NO✓

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?	YES	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:

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	YES	NO✓
If YES, is it controlled by any legislation of any sphere of government?	YES	NO

If YES, the applicant must 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:

Minimal of dust may be generated from the movement of construction vehicles and from general construction related activities such as the off loading of construction material including sand and cement.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	YES	NO✓

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	YES	NO✓
If YES, is it controlled by any legislation of any sphere of government?	YES	NO✓

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:

Noise during the construction phase:

During the construction phase, noise generated will be mainly caused by the diesel powered equipment such as the generators used for powering of equipment used for the clearing and preparation of land for laying the foundation for the tower. Noise during the construction phase will be limited to working hours (07h00 to 17h00).

Noise during the operation phase:

No additional noise will be generated from the operation of the proposed lighthouse tower. Noise will be produced from an already existing nautophone on site which does not fall under the scope of this application. The developer was advised that this existing nautophone should be strategically relocated i.e. further seaward and in front of the proposed lighthouse tower such that the new tower can potentially act as a barrier thereby reducing the transfer of sound waves inland and maximising the effect for mariners at sea.

13. WATER USE

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

Municipal✓	*Water board*	*Groundwater*	*River, stream, dam or lake*	*Other*	*The activity will not use water*
Tapped water currently available and supplied on site will be used for drinking purposes for construction					

workers and washing of the concrete mixing equipment. The tapped water will also be used for mixing of concrete. Any wastewater that will be generated will be stored and removed from site after construction.					

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 authorisation (general authorisation or water use license) from the Department of Water Affairs?	YES	NO✓
If YES, please provide proof that the application has been submitted to the Department of Water Affairs.		

14. ENERGY EFFICIENCY

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

During the construction phase:
Generators will provide energy to power the equipment required for the clearing and preparation of the site for laying the tower foundations. The contractor will be advised to simultaneously transport all construction materials to site where possible, and to collect waste material simultaneously with other activities to reduce the amount of fuel usage for such transportation.

During the operation phase:
The new lighthouse will be powered through connection to an existing engine room powered by generators. This is currently regarded as an efficient energy source as energy consumption is limited to the time that the lighthouse is operated and switched off during non-operational times.

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

None of the planned activities can be directly linked to design measures for alternative energy sources during the construction and operation phases of the project. The nature of the project requires lighting of an appropriate strength to satisfy its legal requirements of providing sufficient lighting to mariners entering or leaving the Port. As such no alternate lightning has been proposed or evaluated.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. 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 B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A): [ ]

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

3. Has a specialist been consulted to assist with the completion of this section? YES✓ | NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

- **Note from CSIR: A heritage impact study was conducted by Timothy Hart of ACO Associates which informed the Cultural/Historical features of this section. Refer to Appendix D.1 for the full specialist study on heritage. Remaining parts of Section B pertaining to biophysical surroundings were completed by the EAP, following a field visit on site.**

Property description/physical address:		
	Province	Northern Cape
	District Municipality	Namakwa District Municipality
	Local Municipality	Richtersveld Local Municipality
	Ward Number(s)	3
	Farm name and number	N/A – The proposed project falls within Transnet owned land.
	Portion number	ERF 335
	SG Code	C05300100000033500000

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:	Residential

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required? YES | NO✓

➢ GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

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 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

➢ LOCATION IN LANDSCAPE

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

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

➢ GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

➢ GROUNDCOVER

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

Natural veld - good condition[E]	**Natural veld with scattered aliens[E]**	**Natural veld with heavy alien infestation[E]**	**Veld dominated by alien species[E]**	**Gardens**
Sport field	**Cultivated land**	**Paved surface✓**	**Building or other structure✓**	**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.

➢ SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	NO✓	UNSURE
Non-Perennial River	YES	NO✓	UNSURE
Permanent Wetland	YES	NO✓	UNSURE
Seasonal Wetland	YES	NO✓	UNSURE
Artificial Wetland	YES	NO✓	UNSURE
Estuarine / Lagoonal wetland	YES	NO✓	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

➢ 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:

Natural area✓	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre✓	Filling station [H]
Medium density residential✓	School✓	Landfill or waste treatment site
High density residential✓	Tertiary education facility	Plantation
Informal residential[A]	Church✓	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland

Light industrial	Sewage treatment plant[A]	Nature conservation area
Medium industrial [AN]	Train station or shunting yard [N]	Mountain, koppie or ridge
Heavy industrial [AN]	Railway line [N]	Museum
Power station	Major road (4 lanes or more) [N]	Historical building✓
Office/consulting room✓	Airport [N]	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam[A]	Sport facilities✓	Archaeological site✓
Quarry, sand or borrow pit	Golf course	Other land uses (describe): Magistrates Court✓

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

N/A

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO✓
Core area of a protected area?	YES	NO✓
Buffer area of a protected area?	YES	NO✓
Planned expansion area of an existing protected area?	YES	NO✓
Existing offset area associated with a previous Environmental Authorisation?	YES	NO✓
Buffer area of the SKA?	YES	NO✓

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

➢ 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 paleontological sites, on or close (within 20m) to the site? If YES, explain:	YES✓	NO
	Uncertain	

Explosives booth near the site which was confirmed to have been built in the early 20th century (confirmed to exist in 1937 by aerial photography), and a lean-to structure on site which is dubiously older than 60 years of age.

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

The findings of the heritage specialist investigation revealed that the lean-to structure on site was never one of the early buildings of Port Nolloth (i.e. established in 1860 onwards), but was built into its current form after 1955 with subsequent upgrades and modifications. The structure is of low heritage significance and not unique. The proposed demolition of the lean-to to make way for the new light house will not affect the status of this building.

The magazine adjacent to the staff building (i.e. the explosives booth) is the only structure of any heritage significance and as such should continue to be conserved.

No negative impacts will be experienced, however a positive gain for the area will result in that the simple traditional design of the proposed lighthouse will add value and interest to the streetscape and the town at large.

No other mitigation measures are recommended, the proposed development activity is therefore supported.

Please refer to Appendix D.1 for the full Heritage specialist study report.

Will any building or structure older than 60 years be affected in any way?	YES✓	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES✓	NO

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

- **Note from CSIR: The heritage specialist study has confirmed that the lean-to structure which will be demolished is dubiously older than 60 years and of low heritage significance. Nonetheless, the specialist has submitted an application to the Northern Cape Provincial Heritage Resources Authority (NCPHRA) for removal of the structure. Refer to Appendix J.3 of this Draft BAR for proof of submission of the application.**

➢ SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

The Census carried out in 2001 specified that the Richtersveld Local Municipality (RLM) contained a total population of 10 125, whilst the Community Survey carried out in 2007 estimated a total population of 14 613 (Statistics SA, 2008). This indicates a 30.7% increase from 2001 to 2007. In terms of population groups, the total population calculated during the 2007 Community Survey consisted of 7.77 % Black, 81.93 % Coloured, 10.22 % White, and 0.08 % Indian or Asian (Statistics SA, 2008).

The results of the 2007 Community Survey indicates that approximately 5 615 people are employed and 1 469 people are unemployed, which represents 38.43 % and 10.05 % of the total RLM population respectively (Statistics SA, 2008). Approximately 20.23 % of the total RLM population is considered to be economically inactive. **Figure 1** below illustrates the employment levels in the RLM.

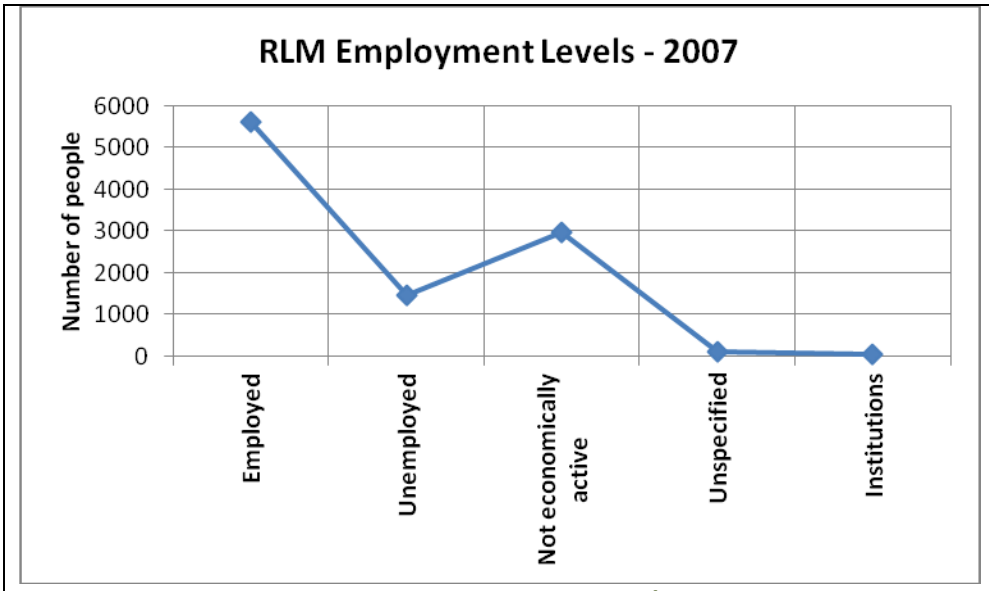


Figure 1: Employment levels in the RLM (Data Source: Statistics SA, 2008).

Economic profile of the local municipality:

The RLM economy is characterised by the following:

- An economy which is dependent on two economic sectors namely mining and fishing and mari-culture.
- Mining which constitutes the most dominant economic sector is becoming less productive and resulting in downscaling of several mining companies in the area, and subsequent decline in the local economy.
- Promising growth through nature-based tourism in the Municipality, where most of the tourism market is dominated by 4x4 visitors to the Richtersveld National Park (RNP).
- High levels of poverty and unemployment (especially due to downscaling of mines), and low levels of education.
- An increasing population in rural towns due to downscaling of the mines and there are few other established industries that are providing work opportunities for this rural population.
- Poor infrastructure and lack of water which acts as a constraint to Port Nolloth's expansion.
- Majority of the population that are involved in unskilled labour with skilled profession generally below the 5% mark.

In terms of the income levels of the RLM population aged between 15 and 65 years, approximately 3 926 people have no form of income, whilst 14 people fall within the highest income bracket (R 204 801 or more) as illustrated in **Figure 2** below (Statistic SA, 2008 (2007 Community Survey)). Comparatively, 1 486 people earn between R 801 and R 1 600. It can be derived from **Figure 2** below that a large amount of the population aged between 15 and 65 earn within the lower income brackets.

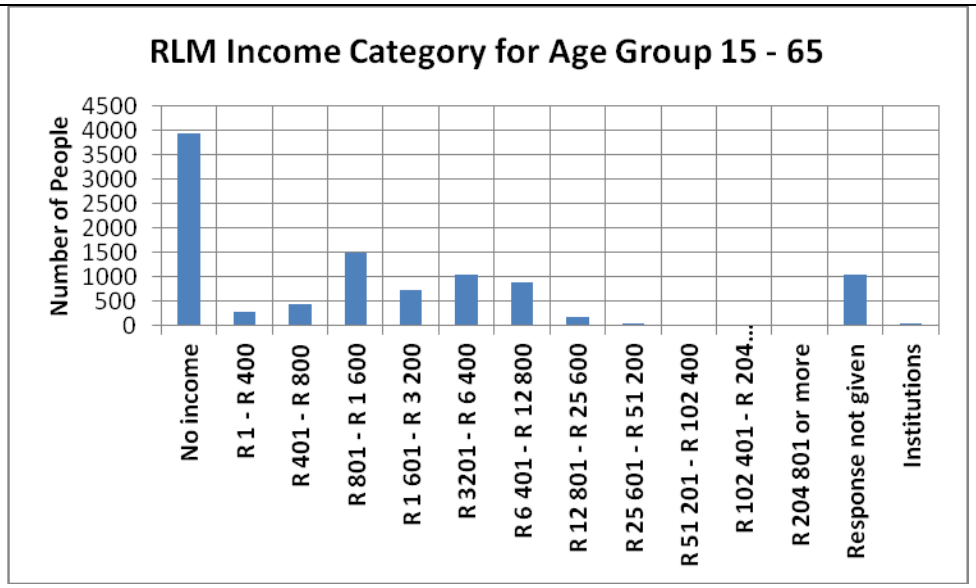


Figure 2: Income Category in the RLM (Data Source: Statistics SA, 2008).

Figure 3 below illustrates the occupation categories for the RLM population aged between 15 and 65 years old based on the 2007 Community Survey. Derived from **Figure 3**, it is clear that the majority of the economically active population within identified categories contain elementary occupations (a total of 6.57 %). On the other hand, 0.29 % of the total economically active population have occupations related to institutions, which represents the minimum.

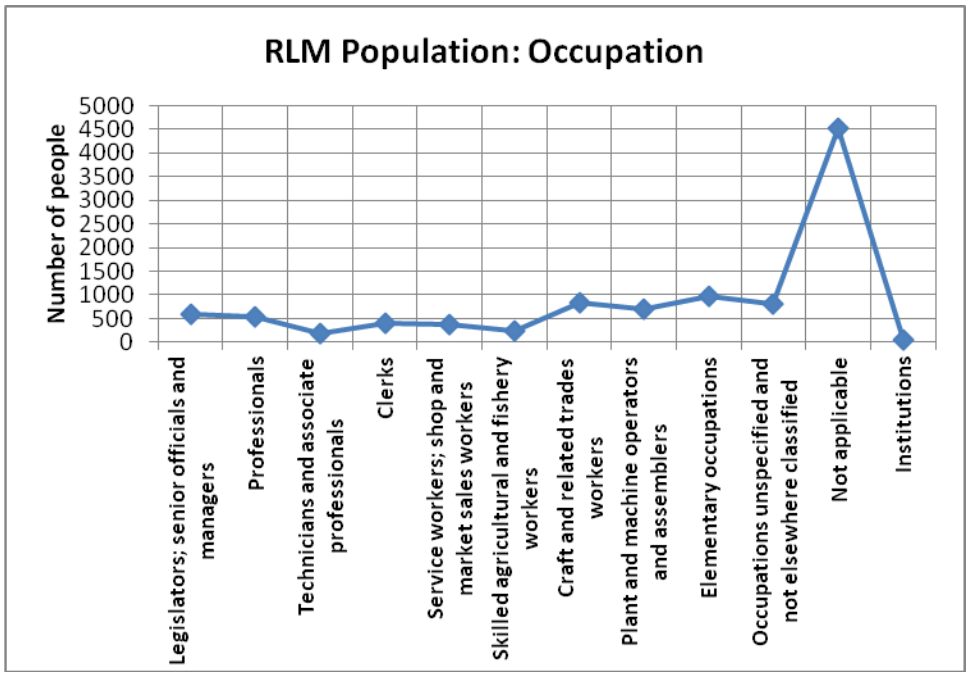


Figure 3: Occupation Categories of the RLM Population (Data Source: Statistics SA, 2008).

Figure 4 below indicates the main industrial and economic sectors that the economically active population are employed within based on the 2007 Community Survey. From the identified sectors, the Mining and Quarrying Sector employs the highest number of people, whilst none of the RLM population is involved in the Electricity, Gas and Water supply Sector. The Institutions Sector employs the second lowest number of people.

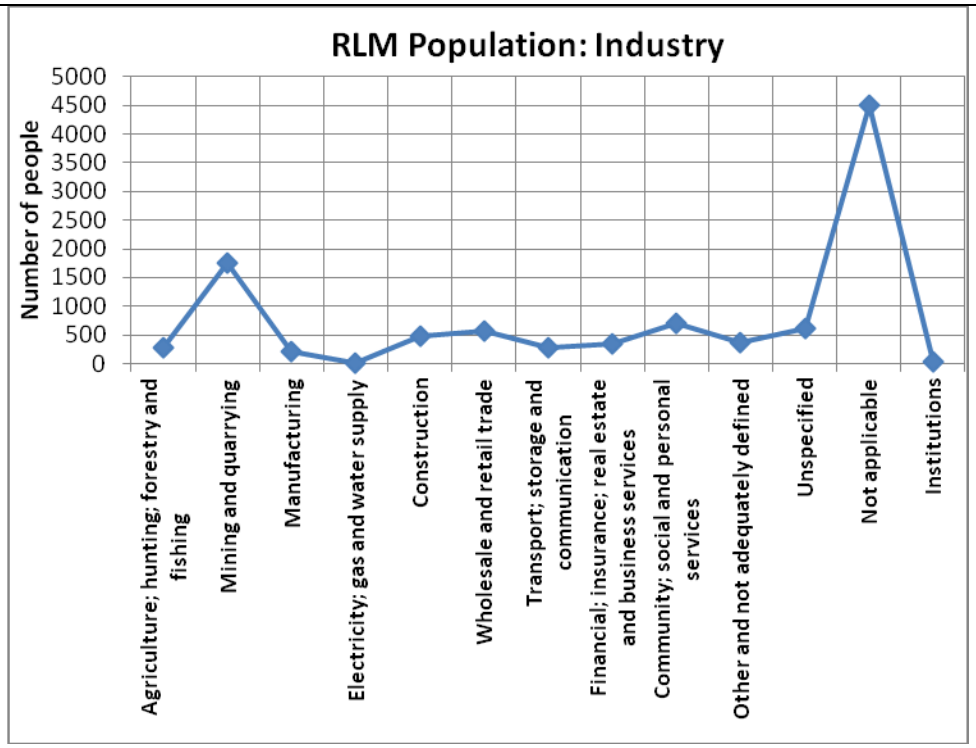


Figure 4: Industry Sectors of the RLM Population (Data Source: Statistics SA, 2008).

Level of education:

The 2007 Community Survey assessed the level of education for the RLM and approximately 6.5 % of the total population obtained a Grade 12 without a university exemption, and 0.7 % obtained Grade 12 with a university exemption (Statistics SA, 2008) (refer to **Table 2** below). Approximately 6.7 % of the total population acquired some form of higher education such as certificates, diplomas and degrees. In addition, 3.5 % of the total population received no schooling (Statistics SA, 2008).

Table 2: Level of education of the RLM Population (Data Source: Statistics SA, 2008).

Level of Education in RLM	Number of people	as % of total pop. in RLM
Grade 0	214	1.5
Grade 1/sub A (completed or in process)	317	2.2
Grade 2/sub B	452	3.1
Grade 3/standard 1	422	2.9
Grade 4/standard 2	473	3.2
Grade 5/standard 3	786	5.4
Grade 6/standard 4	1030	7.0
Grade 7/standard 5	1757	12.0
Grade 8/standard 6/form 1	1656	11.3
Grade 9/standard 7/form 2	979	6.7
Grade 10/standard 8/form 3/NTC I	1111	7.6
Grade 11/standard 9/form 4/NTC II	954	6.5
Attained grade 12; out of class but not completed grade 12	585	4.0
Grade 12/Std 10/NTC III (without university exemption)	955	6.5
Grade 12/Std 10 (with university exemption)	102	0.7
Certificate with less than grade 12	65	0.4
Diploma with less than grade 12	144	1.0
Certificate with grade 12	381	2.6
Diploma with grade 12	89	0.6
Bachelor's degree	0	0.0
BTech	14	0.1
Post graduate diploma	274	1.9
Honour's degree	14	0.1
Higher degree (masters/PhD)	0	0.0
No schooling	508	3.5
Out of scope (children under 5 years of age)	1269	8.7
Unspecified	16	0.1
Institutions	47	0.3

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	Approximately R 3.5 million	
What is the expected yearly income that will be generated by or as a result of the activity?	N/A	
Will the activity contribute to service infrastructure?	YES✓	NO
Is the activity a public amenity?	YES	NO✓
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	Approximately 49 employment opportunities across various skill classes	
What is the expected value of the employment opportunities during the development and construction phase?	Approximately R 628 000 through direct employment, and R 704 000 through indirect employment	
What percentage of this will accrue to previously disadvantaged individuals?	Unknown but in line with Transnet policies in place.	

How many permanent new employment opportunities will be created during the operational phase of the activity?	1 skilled permanent position
What is the expected current value of the employment opportunities during the first 10 years?	Unknown at this stage.
What percentage of this will accrue to previously disadvantaged individuals?	Unknown but in line with Transnet policies in place.

➢ BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR) ✓	

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	%	
Degraded (includes areas heavily invaded by alien plants)	%	
Transformed✓ (includes cultivation,	100 %	Site condition comprises a full modified concrete/artificial surface with concrete buildings.

dams, urban, plantation, roads, etc)		

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		**Aquatic Ecosystems**						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	Least Threatened	YES	NO✓	UNSURE	YES	NO✓	YES✓	NO

- **Note from CSIR: The proposed site for the new lighthouse is completely transformed (i.e. comprises an artificial concrete surface). As such, no vegetation and/or aquatic systems occur on site.**

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The project site is fully transformed and comprises an artificial (concrete) surface with no vegetation and/or aquatic systems present on site.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Die Plattelander	
Date published	31 August 2012	
Site notice position	**Latitude**	**Longitude**
	S 29°14'59.78"	E 16°52'5.27"
Date placed	03 October 2012	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

INITIAL STAKEHOLDERS IDENTIFIED		
Title, Name and Surname	**Affiliation/ key stakeholder status**	**Contact details (tel number or e-mail address)**

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

Note from CSIR: Proof of key stakeholders receiving written notification of the proposed project, in the form of registered mail receipts and e-mail delivery reports, can be found in Appendix E.2 of this Draft BAR.

Prior to the commencement of the process and placing the adverts and site notices noted in Section 1 above, an initial database of I&APs was developed for the Basic Assessment Process. This was supplemented with input from the Environmental Assessment Practitioner (CSIR) and the applicant (Transnet). This initial database included 39 registered I&APs. A copy of the database, indicating interaction with I&APs is included as Appendix E5 of this report. The 39 registered I&APs includes affected organs of state and authorities. All I&APs on the database were sent written notification of the Basic Assessment Process, via Letter 1 dated 28 August 2012 (published in both English and Afrikaans as the latter comprises an important language for the residents of Port Nolloth), which also included a comment form and a Background Information Document on the project. Additionally, copies of this correspondence were also placed on the project website http://www.csir.co.za/eia/Port_Nolloth_Lighthouse.html. Appendix E2 contains a copy of the correspondence sent to I&APs. A copy of the personalised letters sent to all 39 registered I&APs on the database can be provided upon request.

In terms of the electronic database, I&AP details are being captured and automatically updated as and when information is distributed to or received from I&APs. This ongoing and up-to-date record of communication is an important component of the public participation process. It must be noted that while not required by the regulations, those I&APs proactively identified at the outset of the Basic Assessment Process will remain on the project database throughout the EIA process and will be kept informed of all opportunities to comment and will only be removed from the database by request.

The current database for the Draft Basic Assessment Report release includes 50 registered I&APs, please see copy attached as Appendix E5. The database provides, where feasible, the contact number or email address for I&APs. The database also indicates at what stage of the process correspondence has been sent to a specific I&AP and records when comments are received from I&APs. In this manner a record of the interaction and communication with I&APs is maintained throughout the public participation process. A copy of all correspondence sent to I&APs (mailed or emailed) is kept on file for record purposes.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
Potential impacts on heritage structures	• The "explosives booth" near the proposed site is the only structure of high heritage value and will continue to be conserved. • The existing lighthouse is 34 years old and does not require a permit for its removal. • An application for the demolition of the lean-to structure has been submitted as it is dubiously older than 60 years. However, this structure is of low heritage value. • A Heritage Impact Assessment has found that the study area is too transformed to be considered archaeologically sensitive.
Public participation concerns	• All necessary measures were undertaken to inform surrounding landowners of the proposed project. • Should authorisation be granted, the CSIR will place a newspaper advert prior to commencement of construction activities. • Research showed that "Die Plattelander" was the only newspaper in the region which covered a large distribution range that also covered the town of Port Nolloth. Suggestions on additional/other local newspapers in the areas were welcomed.
Potential noise impacts	• There are no planned upgrades on the existing engine room as this does not form part of the application. Consequently, the engine room will not be sound-proofed. • There are no upgrades or constructions that ties in with the nautophone as part of this Basic Assessment process. However, the CSIR has advised Transnet to consider relocating the nautophone as part of their ongoing management practices to minimise the noise impacts for people residing on the landward side. The CSIR also believes that the construction of the concrete tower adjacent to the existing nautophone will assist in absorbing some of the sound reverberations thereby further reducing noise impacts.
Potential visual impacts	• Overall, sea views of certain residents will be enhanced and sea views of certain residents will be

Summary of main issues raised by I&APs	Summary of response from EAP
	reduced by the construction of the new lighthouse and removal of the existing lighthouse. • Lights on the landward side of the lighthouse will be blanked off to reduce visual impacts for residents. In addition, the proposed lighthouse will be constructed closer to the shoreline as compared to the existing lighthouse which will ensure that the light "spill" emanating from the new lighthouse will be confined more towards the sea. However, this effect will not be significant in relation to the existing lighthouse as the proposed new lighthouse will be in close proximity to the existing lighthouse.
Potential impacts on protected trees and plant species	• As the site is located within a high density urban area and was previously the location of the 1909 cast iron lighthouse, no trees or vegetation will be disturbed by construction activities as the site is fully transformed i.e. concrete/tarred surfaces.
Potential waste impacts	• Due to the limited quantity of asbestos requiring removal (i.e. 0.18 cubic metres maximum)) from the lean-to structure, this does not trigger the need for a waste licence application process as it is once-off and well below the legislated thresholds. Asbestos will instead be removed and disposed off in accordance with Section 21 of the Asbestos Regulations, 2001 (under the Occupational Health and Safety Act, 1993) (Refer to Appendix J.2 for electronic correspondence with the waste specialist consulted).
Socio-economic impacts	• There will be local employment opportunities mainly in the construction phase of the project. However, the final numbers will be confirmed upon completion of the Basic Assessment process and if positive environmental authorisation is obtained.
Water supply impacts	• The new lighthouse will draw on existing supplies of water and power. No impacts are associated with water supply for the proposed project.

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR 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 the Final BAR as Appendix E3.

Note from CSIR: The Comments and Response Report is attached as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

INITIAL STAKEHOLDERS IDENTIFIED					
Authority/Organ of State	**Contact person (Title, Name and Surname)**	**Tel No**	**Fax No**	**e-mail**	**Postal address**

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

Note from CSIR: Proof of Authorities and Organs of State receiving written notification of the proposed project, in the form of registered mail receipts and e-mail delivery reports, can be found in Appendix E.4/E.2 of this Draft BAR.

Prior to the commencement of the process and placing the adverts and site notices noted in Section 1 above, an initial database of I&APs was developed for the Basic Assessment Process. This was supplemented with input from the EIA Project Managers (CSIR) and the applicant (Transnet). This initial database included 27 organs of state or potentially affected authorities. A copy of the database, indicating interaction with organs of state or potentially affected authorities is included as Appendix E5 of this report. These registered authorities and organs of state were sent written notification of the Basic Assessment Process, via Letter 1 dated 28 August 2012, which included a comment form and a Background Information Document on the project. Copies of this correspondence were placed on the project website http://www.csir.co.za/eia/Port Nolloth Lighthouse.html. Appendix E2 contains a copy of the correspondence sent. A copy of the personalised letters is kept on file and can be provided upon request.

Key authorities (Richtersveld Local Municipality, Namakwa District Municipality, Northern Cape Department of Environment and Nature Conservation and SAHRA Northern Cape) and interested landowners were then consulted telephonically and in one-on-one consultation sessions during subsequent site visits. The notes from these meetings are included as Appendix E6 and the comments raised at this meeting are included in the Comments and Response Report attached as Appendix E3. Furthermore, the project database has been updated to include additional authorities and organs of state showing interest in the project. Thus, the project database for the release of the Draft Basic Assessment Report now includes 33 organs of state or potentially affected authorities.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

Note from CSIR: The following summarises the public participation process prior to the release of the Draft Basic Assessment Report for I&AP Review:

Identification and Notification to I&APs and Affected Organs of State

- **Advertisement to Register Interest - Die Plattelander (English & Afrikaans), 31 August 2012;**
- **Site notice boards - placed on site in English & Afrikaans;**
- **Notice to Surrounding Landowners - a database of I&APs is included in Appendix E5. Written notification was provided to all I&APs and Affected Organs of State on the project database via Letter 1, which included a Background Information Document on the project and a comment form;**
- **Database Development and Maintenance - One mechanism to identify I&APs is through media advertisements. However, as noted above a proactive approach was adopted towards the identification of I&APs and currently 50 I&APs are registered on the database, including affected organs of state and authorities. A copy of the database is included in Appendix E5 of this report. The database indicates when information is sent to or received from I&APs. A copy of all correspondence sent to I&APs is kept on file and can be provided upon request;**
- **Meetings held – as noted in Section 5 above, meetings were held with key authorities, organs of state and interested landowners at the time. Notes from the meetings held are included in Appendix E6 and the issues raised at this meeting have also been included in the Comments and Response Report as Appendix E3; and**
- **Availability of Information – all project information has been made available on an easily accessible the website: http://www.csir.co.za/eia/Port Nolloth Lighthouse.html. In addition to this, hard copies of correspondence were mailed to surrounding landowners, as deemed appropriate.**

Copies of all communication to I&APs up to the release of the Draft Basic Assessment Report for the 40 day review period are attached as Appendix E2 of this Report.

Review of the Draft Basic Assessment Report (current stage in the process)

At the time of the release of the Draft Basic Assessment Report there were 50 I&APs registered on the project database. All I&APs will be notified in writing, via Letter 2, of the 40 day review period for the Draft Basic Assessment Report. Included with this correspondence will be an executive summary of the Draft BAR and a comment form. The Draft BAR will also be made available on the website: http://www.csir.co.za/eia/Port Nolloth Lighthouse.html and copies of the report will be available for review at the Richtersveld Local Municipality and Namakwa District Municipality.

Copies of all comments received on the Draft BAR and proof of correspondence will be included in Final BAR prior to submission to National DEA for decision making.

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. 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

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts 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. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

PLANNING AND DESIGN

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
	Direct impacts: There are no direct impacts anticipated. All planning and design activities are done off site.		
	Indirect impacts: None.		
	Cumulative impacts: None.		

CONSTRUCTION

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Site clearing for the proposed lighthouse – including the demolitions of: ➢ Lean-to structure on ERF 335; and ➢ Existing Aluminium Lattice Lighthouse on ERF 44.	***Direct impacts:***		
	Loss of archaeological heritage resources: ➢ Demolishing/removal of a lean-to structure on site to accommodate the new lighthouse.	Medium	➢ No proposed mitigation. Removal of the lean-to structure cannot be avoided as there is little lateral flexibility for the establishment of the new lighthouse in line with the navigational requirements. A Heritage Impact Assessment has confirmed that the lean-to structure is dubiously older than 60 years and of low heritage significance, and that the proposed lighthouse will add value and interest to the streetscape and the town at large. Nonetheless, a permit application for the removal of this structure has been submitted to the Northern Cape Provincial Heritage Resources Agency (NCPHRA).
	Runoff and erosion: ➢ Increased rainfall runoff and subsequent erosion once the site for the new lighthouse is cleared. This impact will be minimal owing to the limited spatial extent of the site/project.	Low	➢ Protect surrounding areas susceptible to erosion using mulch or a suitable alternative (i.e. straw, erosion control mats etc.). ➢ Care must be taken to control stormwater runoff – implement the stormwater and erosion management plans (Appendix G).
	Waste:	Medium	➢ General waste bins must be made available

Activity	Impact summary	Significance	Proposed mitigation
	➢ Generation of domestic and demolishing waste including sewage from temporary construction toilets. ➢ Generation of building rubble and corrugated asbestos roofing waste from the lean-to structure. ➢ Aluminium waste from decommissioning of the existing lighthouse.		for employees to use throughout the project site. General waste must be disposed off at an approved waste disposal facility and evidence of correct disposal must be kept. ➢ Building rubble and metal waste must be used, where possible, in construction – if this is not possible these must be disposed off at an appropriate site. All temporary soil stockpiles, litter, metal waste and rubble must be removed on completion of construction activities without dumping in surrounding open areas. ➢ Demolition of the asbestos-containing sheeting must be undertaken in accordance with Section 21 of the Asbestos Regulations, 2001 (under the Occupational Health and Safety Act, 1993). . Records of all waste being taken off site must be recorded and kept as evidence. ➢ Contractors must be responsible for the maintenance of sewage waste from on site chemical toilets. Should any spills occur, the material must be cleaned up immediately and disposed off appropriately. Chemical toilets on site during the construction activities must be cleaned and maintained on a weekly basis to minimise the potential of odours on site.
	Soil contamination: ➢ Possible soil contamination during site clearing activities through diesel, petrol and contaminant spills from construction vehicles/equipment.	Medium	➢ Ensure vehicles are serviced regularly and are in good working condition. ➢ Implement good housekeeping including containment and immediate clean-up of any spillages, collection of chemical/oil wastes,

Activity	Impact summary	Significance	Proposed mitigation
			and disposal at an appropriate hazardous waste facility. ➢ Prevent, minimize, and control of the spills of hazardous waste by: • Providing adequate secondary containment for fuel storage and for the temporary storage of other fluids (e.g. lubricating oils, hydraulic fluids). • Using impervious surfaces for refuelling areas and other fluid transfer areas. • Training workers on the correct transfer and handling of fuels and chemicals and the response to spills. • Providing portable spill containment and clean-up equipment on site and training in the equipment deployment.
	Air quality: ➢ Dust production and pollution (exhaust fumes) from construction equipment and vehicles.	Medium	➢ It is recommended that water be sprayed on the access roads. ➢ There should be strict speed limits on access roads with dusty surfaces in order to prevent dust liberation into the atmosphere.
	Noise: ➢ Noise impacts as a result of diesel powered equipment such as the generators used for powering equipment and activities associated with the hauling of construction trucks.	Medium	➢ All construction activities should be undertaken in accordance with daylight working hours between 07:00 and 17:00 on weekdays and 07:30 and 13:00 on Saturdays, with no construction activities taking place on Sundays and public holidays. ➢ All earth-moving vehicles and equipment must be serviced regularly to ensure proper functioning. ➢ A complaints register must be made available so that any complaints can be

Activity	Impact summary	Significance	Proposed mitigation
			logged and reported to the responsible person on site. ➢ Operations should meet the noise standard requirements of the Occupational Health and Safety Act (Act No 85 of 1993).
	Job creation: ➢ Creation of employment and business opportunities.	Low	➢ Maximise local economic opportunities by appointing local labour forces and training this staff. ➢ Before the construction phase TFR should meet representatives from Richtersveld Local Municipality and establish the existence of a skills database for the area. If such a database exists, it should be made available to TFR/the contractors. ➢ TFR should develop a database of local companies, specifically previously disadvantaged companies which could serve as potential service providers prior to the tender process for construction contractors. These companies should be notified of the tender process and invited to bid on project-related activities for the proposed lighthouse.
	Indirect impacts:		
	Public safety: ➢ Impacts on public safety especially due to increased movement of construction vehicles.	Medium	➢ Inform members of the public of construction activities to limit disturbance/interference. ➢ Consult local communities regarding the location of construction camps, access and hauling routes and other likely disturbance during construction. ➢ Undertake construction activities during daylight hours and not on Sundays and public holidays.

Activity	Impact summary	Significance	Proposed mitigation
	Secondary benefits to community: ➢ Secondary industries may benefit from this development through accommodation for construction workers, transport of workers to and from the site, and support services such as concrete and building material suppliers.	Medium	➢ None.
	Road damage: ➢ Damage to roads through movement of construction vehicles.	Medium	➢ Construction vehicles must follow strict speed limits on all access roads (40 km/hr in residential areas). ➢ The contractor/proponent must ensure the repair of any damaged roads caused by the movement of construction vehicles.
	Cumulative impacts:		
	Job creation: ➢ Increased job potential in the region through the development activities.	Low	➢ None.
	Air quality: ➢ Increased dust and air pollution from construction activities in conjunction with port related activities and vehicle movement in the vicinity.	Medium	➢ No further mitigation measures can be applied – apply mitigation measures for air quality as above.
	Waste: ➢ Increased waste material on site and at landfills.	Medium	➢ No new mitigation measures – apply mitigation measures for waste generation as above.
Excavations for: ➢ Lighthouse foundation; and ➢ A 220 V underground cable extending from the engine room on ERF 45 to the proposed lighthouse on ERF 335.	***Direct impacts:***		
	Loss of archaeological heritage resources: ➢ Destruction and disturbance of palaeontological/ archaeological occurrences buried beneath the surface during excavations.	Low	➢ A heritage impact assessment has confirmed that the study area is too transformed to be considered archaeologically sensitive. ➢ Nonetheless, any palaeontological/ archaeological heritage uncovered during the construction must result in stopping construction activities and immediately reporting the findings to the SAHRA APM

Activity	Impact summary	Significance	Proposed mitigation
			Unit (Katie Smuts/Colette Scheermeyer 021 462 4502). ➢ Any major bedrock excavations should be examined at regular intervals for fossil material by the Environmental Control Officer during the construction phase.
	Runoff and erosion: ➢ Increased runoff and erosion from excavations for the lighthouse foundation and cabling to the engine room. The spatial extent of the exposed soil surface will be minimal owing to the limited development footprint. ➢ Erosion of soil stockpiles.	Medium	➢ Keep exposed soil surfaces covered with mulch, straw, erosion control mats or any other means until plant cover is established or the surface covered by artificial means (e.g. concrete/tarring) as applicable. ➢ Implement the stormwater management plan (Appendix G). ➢ Erosion damage to soil stockpiles must be prevented with soil conservation measures such as plastic sheeting, tarpaulins if applicable.
	Waste: ➢ Generation of domestic waste including sewage from temporary construction toilets.	Medium	➢ General waste bins must be made available for employees to use throughout the project site. General waste must be disposed off at an approved waste disposal facility and evidence of correct disposal must be kept. ➢ In the case of sewage waste from on site chemical toilets, contractors will be responsible for the maintenance of these. Should any spills occur, the material must be cleaned up immediately and disposed off appropriately. Chemical toilets on site during the construction activities must be cleaned and maintained on a weekly basis to minimise the potential of odours on site.
	Soil contamination: ➢ Possible soil contamination during	Medium	➢ Ensure vehicles are serviced regularly and are in good working condition.

Activity	Impact summary	Significance	Proposed mitigation
	excavation activities through diesel, petrol and contaminant spills from construction vehicles/equipment.		➢ Implement good housekeeping including containment and immediate clean-up of any spillages, collection of chemical/oil wastes, and disposal at an appropriate hazardous waste facility. ➢ Prevent, minimize, and control of the spills of hazardous waste by: • Providing adequate secondary containment for fuel storage and for the temporary storage of other fluids (e.g. lubricating oils, hydraulic fluids). • Using impervious surfaces for refuelling areas and other fluid transfer areas. • Training workers on the correct transfer and handling of fuels and chemicals and the response to spills. • Providing portable spill containment and clean-up equipment on site and training in the equipment deployment.
	Air quality: ➢ Reduction in local air quality through dust production and pollution from construction equipment and vehicles during excavations.	Medium	➢ Vehicles must only be permitted in demarcated areas or on existing roads. ➢ It is recommended that water be sprayed on the access roads. ➢ There should be strict speed limits on access roads with dusty surfaces in order to prevent dust liberation into the atmosphere.
	Noise: ➢ Noise impacts as a result of diesel powered equipment such as the generators used for powering equipment and activities associated with the hauling of construction trucks.	Medium	➢ All construction activities should be undertaken in accordance with daylight working hours between 07:00 and 17:00 on weekdays and 07:30 and 13:00 on Saturdays, with no construction activities taking place on Sundays and public holidays.

Activity	Impact summary	Significance	Proposed mitigation
			➢ All earth-moving vehicles and equipment must be serviced regularly to ensure proper functioning. ➢ A complaints register must be made available so that any complaints can be logged and reported to the responsible person on site. ➢ Operations should meet the noise standard requirements of the Occupational Health and Safety Act (Act No 85 of 1993).
	Road damage: ➢ Damage to roads through excavation activities on Beach Road for the underground 220 V cable.	High	➢ The contractor/proponent must ensure the proper repair of any damaged roads caused by excavations in the construction phase.
	Indirect impacts:		
	Road damage: ➢ Road damage due to construction vehicle movement.	Medium	➢ Construction vehicles must follow strict speed limits on access roads. ➢ The contractor/proponent must ensure the repair of any damaged roads caused by the movement of construction vehicles.
	Cumulative impacts:		
	Air quality: ➢ Increased dust and air pollution from construction activities in conjunction with port related activities and vehicle movement in the vicinity.	Medium	➢ No further mitigation measures can be applied – apply mitigation measures for air quality as above.
Construction of concrete lighthouse tower, lantern house, underground cabling and commissioning.	***Direct impacts:***		
	Noise: ➢ Noise impacts as a result of diesel powered equipment such as the generators used for powering equipment and activities associated with the hauling of construction trucks and placement of	Medium	➢ All construction activities should be undertaken in accordance with daylight working hours between 07:00 and 17:00 on weekdays and 07:30 and 13:00 on Saturdays, with no construction activities taking place on Sundays and public

Activity	Impact summary	Significance	Proposed mitigation
	the new tower (i.e. cranes).		holidays. ➢ All earth-moving vehicles and equipment must be serviced regularly to ensure proper functioning. ➢ A complaints register must be made available so that any complaints can be logged and reported to the responsible person on site. ➢ Operations should meet the noise standard requirements of the Occupational Health and Safety Act (Act No 85 of 1993).
	Visual: ➢ Construction operations and equipment and vehicles could pose a visual intrusion on existing views of sensitive visual receptors in the region.	Medium	➢ Project developers should demarcate construction boundaries to minimise areas of surface disturbance. ➢ The contractor should maintain good housekeeping on site to avoid litter and minimise waste. ➢ Rehabilitation of temporarily cleaned areas should start as soon as possible. ➢ Control measures such as mulch should be spread over soil disturbances to aid rehabilitation and dust suppression. ➢ Night lighting of the construction site should be minimised within the requirements of safety and efficiency.
	Air quality: ➢ Reduction in local air quality through dust production and pollution from construction equipment and vehicles during placement of the tower.	Medium	➢ Vehicles must only be permitted in demarcated areas or on existing roads. ➢ It is recommended that water be sprayed on the access roads.

Activity	Impact summary	Significance	Proposed mitigation
			➢ There should be strict speed limits on access roads with dusty surfaces in order to prevent dust liberation into the atmosphere.
	Indirect impacts:		
	Road damage: ➢ Road damage due to construction vehicle movement.	Medium	➢ Construction vehicles must follow strict speed limits on all access roads. ➢ The contractor/proponent must ensure the repair of any damaged roads caused by the movement of construction vehicles.
	Cumulative impacts:		
	Air quality: ➢ Increased dust and air pollution from construction activities in conjunction with port related activities and vehicle movement in the vicinity.	Medium	➢ No further mitigation measures can be applied – apply mitigation measures for air quality as above.

OPERATION

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Operation of lighthouse.	***Direct impacts:***		
	Visual: ➢ Intrusion of a concrete lighthouse on views of sensitive visual receptors. ➢ Effects of the lighthouse on the nightscape of the region.	Medium	➢ Maintenance of the lighthouse exterior which will subsequently allow for an improved sense of place for Port Nolloth in general. ➢ In terms of the nightscape, residents in the region will most likely be used to this effect based on the existing lighthouse. In addition, the new lighthouse will be located closer seaward, thereby disturbing the "spill" of the light beams for those residing on land – as compared to the existing lighthouse located further inland to this location.
	Economics: ➢ The operation of the lighthouse will provide one permanent post.	Low	➢ None. ➢ The position will be filled by an existing competent person within Transnet trained in lighthouse

Activity	Impact summary	Significance	Proposed mitigation
			operational requirements.
	Secondary effects: ➢ Future development of Port activities. ➢ Improved safety for mariners.	High	➢ None.
	Indirect impacts:		
	Aesthetics and heritage value: ➢ The new tower will be more aesthetically pleasing and will contribute to the country's rich lighthouse heritage.	Medium	➢ Architectural design input and proper maintenance of the new lighthouse will contribute significantly in terms of aesthetics and potential heritage value of the lighthouse.
	Cumulative impacts:		
	None.		
Use of vehicle during maintenance of lighthouse.	***Direct impacts:***		
	Health and Safety: ➢ When maintenance is required, operators should be aware that specialised equipment (e.g. cranes) might be needed, and work could be performed at high heights.	Medium	➢ Workers must have undergone necessary safety training. ➢ Guidelines must be in place to deal with emergencies such as someone being hurt during maintenance work on the tower. ➢ Workers must be equipped with Personal Protective Equipment (PPE).
	Indirect impacts:		
	Road damage: ➢ Through use of maintenance vehicles.	Low	➢ All maintenance staff must make use of existing roads and follow designated speed limits.
	Cumulative impacts:		
	None.		

DECOMMISSIONING AND CLOSURE

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Disassemble lighthouse according to regulatory requirements.	***Direct impacts:***		
	Job creation: ➢ Creation of employment for decommissioning activities e.g. demolitions. ➢ The social impacts associated with the final	Low	➢ For decommissioning activities, maximise local economic opportunities by appointing local labour forces and training this staff.

Activity	Impact summary	Significance	Proposed mitigation
	decommissioned lighthouse are likely to be limited owing to the small number of permanent employees affected.		
	Waste: ➢ Generation of domestic and demolishing waste including sewage from temporary toilets.	Medium	➢ General waste bins must be made available for employees to use throughout the project site. General waste must be disposed off at an approved waste disposal facility and evidence of correct disposal must be kept. ➢ All temporary soil stockpiles, litter and rubble must be removed on completion of decommissioning activities without dumping in surrounding open areas. ➢ Hazardous waste must be removed and disposed off in a registered landfill site and the activities must be undertaken by an accredited services provider. Records of all waste being taken off site must be recorded and kept as evidence. ➢ In the case of sewage waste from on site chemical toilets, contractors will be responsible for the maintenance of these. Should any spills occur, the material must be cleaned up immediately and disposed off appropriately. Chemical toilets on site during decommissioning activities must be cleaned and maintained on a weekly basis to minimise the potential of odours on site.
	Noise: ➢ Noise impacts as a result of diesel powered equipment such as the generators used for powering equipment and activities associated with the operation of construction vehicles.	Medium	➢ All decommissioning activities should be undertaken in accordance with daylight working hours between 07:00 and 17:00 on weekdays and 07:30 and 13:00 on Saturdays, with no activities taking place on Sundays and public holidays. ➢ All construction vehicles and equipment must be serviced regularly to ensure proper functioning. ➢ Operations should meet the noise standard

Activity	Impact summary	Significance	Proposed mitigation
			requirements of the Occupational Health and Safety Act (Act No 85 of 1993).
	Air quality: ➢ Reduction in local air quality through dust production and pollution from construction equipment and vehicles during decommissioning activities.	Medium	➢ Vehicles must only be permitted in demarcated areas or on existing roads. ➢ It is recommended that water be sprayed on the access roads. ➢ There should be strict speed limits on access roads with dusty surfaces in order to prevent dust liberation into the atmosphere.
	Soil contamination: ➢ Possible soil contamination during decommissioning activities through diesel, petrol and contaminant spills from construction vehicles/equipment.	Medium	➢ Ensure vehicles are serviced regularly and are in good working condition. ➢ Implement good housekeeping including containment and immediate clean-up of any spillages, collection of chemical/oil wastes, and disposal at an appropriate hazardous waste facility. ➢ Prevent, minimize, and control of the spills of hazardous waste by: • Providing adequate secondary containment for fuel storage and for the temporary storage of other fluids (e.g. lubricating oils, hydraulic fluids). • Using impervious surfaces for refuelling areas and other fluid transfer areas. • Training workers on the correct transfer and handling of fuels and chemicals and the response to spills. • Providing portable spill containment and clean-up equipment on site and training in the equipment deployment.
	Indirect impacts:		
	None.		
	Cumulative impacts:		

Activity	Impact summary	Significance	Proposed mitigation
	None.		
No-go option			
Construction, operation and decommissioning phases of the lighthouse.	***Direct impacts:***		
	Should this project not go ahead, none of the negative impacts mentioned above will occur. However, none of the potential benefits, especially those associated with improved marine safety, infrastructural development and socio-economic advantages will also not be realised.		
	Indirect impacts:		
	None.		
	Cumulative impacts:		
	From a socio-economic perspective, the existing lighthouse will pose a safety risk as it has reached the end of its lifespan. In addition, should the new lighthouse not be erected, there will be negative implications from a marine safety point of view with a possible loss of future development opportunities in the region.		

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

2. 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.

APPROACH TO THE BASIC ASSESSMENT

1) METHODOLOGY OF IMPACT ASSESSMENT

According to the DEA IEM Series guideline on "Impact significance" (2002), there are a number of quantitative and qualitative methods that can be used to identify the significance of impacts resulting from a development. The process of determining impact significance should ideally involve a process of determining the acceptability of a predicted impact to society. Making this process explicit and open to public comment and input would be an improvement of the EIA/BA process. The CSIR's approach to determining significance is generally as follows:

- Use of expert opinion by the specialists ("professional judgement"), based on their experience, analysis, and use of existing guidelines and strategic planning documents and conservation mapping (e.g. SANBI biodiversity databases),
- Review of specialist assessment by all stakeholders including authorities such as nature conservation officials, as part of the report review process (i.e. if a nature conservation official disagreed with the significance rating, then we could negotiate the rating),
- Our approach is more a qualitative approach - we do not have a formal matrix calculation of Significance as is sometimes done.

2) SPECIALIST CRITERIA FOR IMPACT ASSESSMENT

The following methodology has been provided by CSIR to all specialists, for incorporation into specialist EIA/BA assessments:

Assessment of potential impacts

The assessment of impact significance should be based on the following conventions:

Nature of Impact - this reviews the type of effect that a proposed activity will have on the environment and should include "what will be affected and how?"

Spatial Extent - this should indicate whether the impact will be:

- Site specific;
- Local (<2 km from site);
- Regional (within 30 km of site);
- National.

Duration - The timeframe during which (lifetime of) the impact will be experienced:

- Temporary (less than 1 year);
- Short term (1 to 6 years);
- Medium term (6 to 15 years);
- Long term (the impact will cease after the operational life of the activity);
- Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient).

Intensity - here it should be established whether the impact is destructive or innocuous and should be described as either:

- High (severe alteration of natural systems, patterns or processes such that they temporarily or permanently cease);
- Medium (notable alteration of natural systems, patterns or processes; where the environment continues to function but in a modified manner);
- Low (negligible or no alteration of natural systems, patterns or processes); be easily avoided by implementing appropriate mitigation measures, and will not have an influence on decision-making).

Probability - this considers the likelihood of the impact occurring and should be described as:

- Improbable (little or no chance of occurring);
- Probable (<50% chance of occurring);
- Highly probable (50 – 90% chance of occurring);
- Definite (>90% chance of occurring).

Reversibility - this considers the degree to which the adverse environmental impacts are reversible or irreversible. For example, an impact will be described as low should the impact have little chance of being rectified to correct environmental impacts. On the other hand, an impact such as the nuisance factor caused by noise impacts from wind turbines can be considered to be highly reversible at the end of the project lifespan. The assessment of the reversibility of potential impacts will be based on the following terms:

- High - impacts on the environment at the end of the operational life cycle are highly reversible
- Moderate - impacts on the environment at the end of the operational life cycle are reasonably reversible
- Low - impacts on the environment at the end of the operational life cycle are slightly reversible
- Non-reversible - impacts on the environment at the end of the operational life cycle are not reversible and are consequently permanent.

Irreplaceability - this reviews the extent to which an environmental resource is replaceable or irreplaceable. For example, if the proposed project will be undertaken on land that is already transformed and degraded, this will yield a low irreplaceability score; however, should a proposed development destroy unique wetland systems for example, these may be considered irreplaceable and thus be described as high. The assessment of the degree to which the impact causes irreplaceable loss of resources will be based on the following terms:

- High irreplaceability of resources (this is the least favourable assessment for the environment.)
- Moderate irreplaceability of resources
- Low irreplaceability of resources
- Resources are replaceable (this is the most favourable assessment for the environment.)

The status of the impacts and degree of confidence with respect to the assessment of the significance is stated as follows:

Status of the impact: A description as to whether the impact will be:

- Positive (environment overall benefits from impact),
- Negative (environment overall adversely affected), or
- Neutral (environment overall not affected).

Degree of confidence in predictions: The degree of confidence in the predictions, based on the availability of information and specialist knowledge. This should be assessed as:

- High,
- Medium, or
- Low.

Based on the above considerations, the specialist must provide an overall evaluation of the significance of the potential impact, which should be described as follows:

- **Low to very low:** (the impact may result in minor alterations of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated).
- **Medium:** (the impact will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated).
- **High:** Where it could have a "no-go" implication for the project unless mitigation or re-design is practically achievable.

Furthermore, the following must be considered:
- Impacts should be described both before and after the proposed mitigation and management measures have been implemented.
- All impacts should be evaluated for both the construction, operations and decommissioning phases of the project, where relevant.
- The impact evaluation should take into consideration the cumulative effects associated with this and other facilities which are either developed or in the process of being developed in the region, if relevant.

Management Actions:
- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set. This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

Monitoring:
Specialists should recommend monitoring requirements to assess the effectiveness of mitigation actions, indicating what actions are required, by whom, and the timing and frequency thereof.

Cumulative Impact:
Consideration is given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts are evaluated with an assessment of similar developments already in the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

Mitigation:
The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximise re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested. All impacts are assessed without mitigation and with the mitigation measures as suggested appropriately implemented.

3) ASSESSMENT OF CUMULATIVE IMPACTS FROM THE ESTABLISHMENT OF SIMILAR PROJECTS IN THE LARGER AREA

According to investigations undertaken, there are no similar developments within a 2 km radius of the project area.

4) ASSUMPTIONS, UNCERTAINTIES AND GAPS IN INFORMATION/KNOWLEDGE

- **Heritage Impact Assessment:**

The assumptions and limitations of the study are summarised below:

- This study has been carried out without a specific site inspection as Tim Hart (heritage specialist) is familiar with Port Nolloth, the site and its context due to a long history of working in the area.
- Historical aerial photography was of indifferent quality.

- **Visual Impact Assessment:**

The assumptions and limitations of the study are summarised below:

Spatial data used for the visibility analysis originate from different sources and scales. Inaccuracies and errors are therefore inevitable. Every effort was made to minimize their effect on the assessment.

Assumptions, uncertainties and gaps in compiling this Draft BAR include:

- Assumption: apart from this proposed lighthouse project, there are no other lighthouse facilities in the Richtersveld Local Municipality. All information provided by the proponent is correct.
- Uncertainty: The disposal facilities with available capacity from the project still need to be indicated by the local and district municipalities.
- Gap: local and provincial legislation did not explicitly make mention of lighthouse projects.

Alternative A (preferred alternative)

This section provides a summary of the Basic Assessment and conclusions drawn from the specialist studies for the proposed TFR Port Nolloth Lighthouse project.

Heritage Impact Assessment:

Construction of the new lighthouse involved decommissioning of the existing aluminium lattice lighthouse as well as part of an existing building on site which may have been of heritage significance – therefore the impact of demolishing these structures had to be assessed through the Heritage Impact Assessment.

In terms of archaeological heritage, the study states that whilst coastal shell middens are prolific around Port Nolloth, indications are that the study area is too transformed to be considered archaeologically sensitive.

A desktop assessment revealed that the existing aluminium lattice lighthouse is less than 60 years of age and did not require any form of heritage permit for its removal. The study also stated that the existing aluminium lighthouse expresses itself as a utilitarian and somewhat odd structure does not "read" as a lighthouse to the casual observer, and is without argument one of the most un-appealing structures within the context of this country's rich lighthouse heritage. The study further notes that the construction of a more formal and recognizable structure within the Transnet owned enclave better landmark status and add a feature of interest to the Beach Street precinct.

In terms of the lean-to structure that will need to be removed for the construction of the new lighthouse, the study found that this feature is of very low heritage significance, and that its demolition will have no negative impacts at all. The study also mentions that this structure is dubiously greater than 60 years of age and is maintained, modernized and in the opinion of the specialist not worthy of inclusion of a regional heritage register nor is it worthy of formal grading.

Table 3 below illustrates a summary of the number of direct and cumulative impacts identified in the Heritage Impact Assessment.

Table 3. Summary of the Heritage Impact Assessment

		Significance Before Mitigation				Significance After Mitigation		
	Total Impacts	Low	Medium	Medium	High	Low	Medium	High
Direct Impacts - Construction Phase	1	0	1	0	0	1	0	0
Total Impacts	1							

As illustrated in **Table 3** above, the impact identified specifically pertains to the destruction of the lean-to structure on site through the demolishing activities for the new lighthouse. This impact is predicted to be of low intensity with a permanent duration and high probability. This impact is considered to be replaceable and reversible. Significant impacts on heritage during the operational and decommissioning phases of the proposed project are not anticipated.

The impact is considered to be of low (positive) significance after mitigation. It is the opinion of the specialist that the proposed lighthouse will add value to the surrounds and the Beach Street streetscape and represent a significant positive impact.

Visual Impact Assessment:

The Visual Impact Assessment assessed the significance of potential visual impacts of the proposed lighthouse during its construction and operation in relation to visual intrusion of the project activities on sensitive viewers.

The following impacts were identified in the Visual Impact Assessment:

- Impact of intrusion of construction activities on sensitive viewers; and
- Impact of intrusion of the proposed lighthouse on views of sensitive visual receptors.

Table 4 below indicates a summary of the number of direct impacts identified in the Visual Impact Assessment.

Table 4. Summary of the Visual Impact Assessment

		Significance Before Mitigation			Significance After Mitigation		
	Total Impacts	Low	Medium	High	Low	Medium	High
Direct Impacts - Construction Phase	1	0	1	0	1	0	0
Direct Impacts - Operational Phase	1	0	1	0	0	1	0
Total Impacts	2						

The visual impact during the construction phase was assessed to be mainly of high intensity as a number of highly sensitive viewers will be affected, low irreplaceability due to the temporary nature of construction activities, and high reversibility. During the operational phase, the visual impact of the lighthouse tower was rated with a medium intensity since a small number of highly sensitive visual receptors may be highly affected, high reversibility as the structure can be completely removed from

view, and medium irreplaceability since whilst some viewers may have their sea views altered, the intrusion will be low for most sensitive visual receptors. It is clear from **Table 4** above that no impacts were assessed as being of high significance after mitigation. All impacts were assessed to be of **low** to **medium significance** after mitigation.

Alternative B

N/A

Alternative C

N/A

No-go alternative (compulsory)

Should this project not go ahead, none of the negative impacts mentioned in this report will occur. However, none of the potential benefits, especially those associated with improved marine safety, infrastructural development and socio-economic advantages will also not be realised.

SECTION E: RECOMMENDATION 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✓	NO

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).

N/A

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.

No major impacts that prevent the proposed lighthouse from being authorised have been identified in this report. A project specific Environmental Management Programme (EMPr) has been compiled and is included in Appendix G of this Draft Basic Assessment Report. The mitigation measures necessary to ensure that the project is planned, constructed, operated and decommissioned in an environmentally responsible manner are listed in this project specific EMPr. The EMPr is a dynamic document that should be updated regularly and provides clear and implementable measures for the establishment and operation of the landside structures and infrastructure.

Listed below are some of the main recommendations that should be considered (in addition to those in the EMPr and Draft BAR) in the opinion of the EAP:

- Prior to the commencement of construction/demolishing activities, it is essential that all permits required to demolish structures of heritage value identified in the Heritage Impact Assessment (Appendix D.1), are obtained from the relevant Authorities.
- Archaeological and palaeontological mitigation measures stipulated within this Draft BAR must be implemented during the construction phase. The contact details for SAHRA and NCPHRA should be included in relevant documents/specifications provided to the Contractor, to ensure that these authorities are contacted timeously in the event of archaeological sites and/or fossils being found during construction.
- Employment should be sourced locally as far as possible.

Is an EMPr attached?	YES✓	NO

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

Ismail Banoo (EAPSA Certified)

NAME OF EAP

13 February 2013

SIGNATURE OF EAP DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

- Appendix A: Maps
- Appendix B: Photographs
- Appendix C: Facility illustration(s)
- Appendix D: Specialist reports (including terms of reference)
- Appendix E: Public Participation
- Appendix F: Impact Assessment
- Appendix G: Environmental Management Programme (EMPr)
- Appendix H: Details of EAP and expertise
- Appendix I: Specialist's declaration of interest
- Appendix J: Additional Information

SECTION F: Appendices

APPENDIX A: SITE LAYOUT PLANS

Appendix A.1: Locality Map
Appendix A.2: Layout/Route Plan
Appendix A.3: Sensitivity Map

APPENDIX B: PHOTOGRAPHS

Appendix B.1 PHOTOGRAPHS • From 8 major compass directions
Appendix B.2 ADDITIONAL PHOTOGRAPHS

APPENDIX C: FACILITY ILLUSTRATIONS

Appendix C.1: Site Layout
Appendix C.2: Conceptual design of Tower Facility (Longitudinal profile)
Appendix C.3: Conceptual design of Tower Facility (Cross-sectional profile)

APPENDIX D: SPECIALIST REPORTS

Appendix D.1 Heritage Impact Assessment
Appendix D.2 Visual Impact Assessment

APPENDIX E: PUBLIC PARTICIPATION

Appendix E.1 Proof of Placement of Newspaper Advertisements and Site Notice Boards
Appendix E.2 Proof of receipt of correspondence sent to I&APs and Organs of State Prior to the Release of the Draft BAR
Appendix E.3 Comments and Response Report
Appendix E.4 Proof of correspondence sent to I&APs and Organs of State Prior to the Release of the Draft BAR (Refer to Appendix E.2)
Appendix E.5 Database of I&APs and Organs of State
Appendix E.6 Copies of Comments Received and Minutes of Meetings

APPENDIX F: IMPACT ASSESSMENT

APPENDIX G: ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

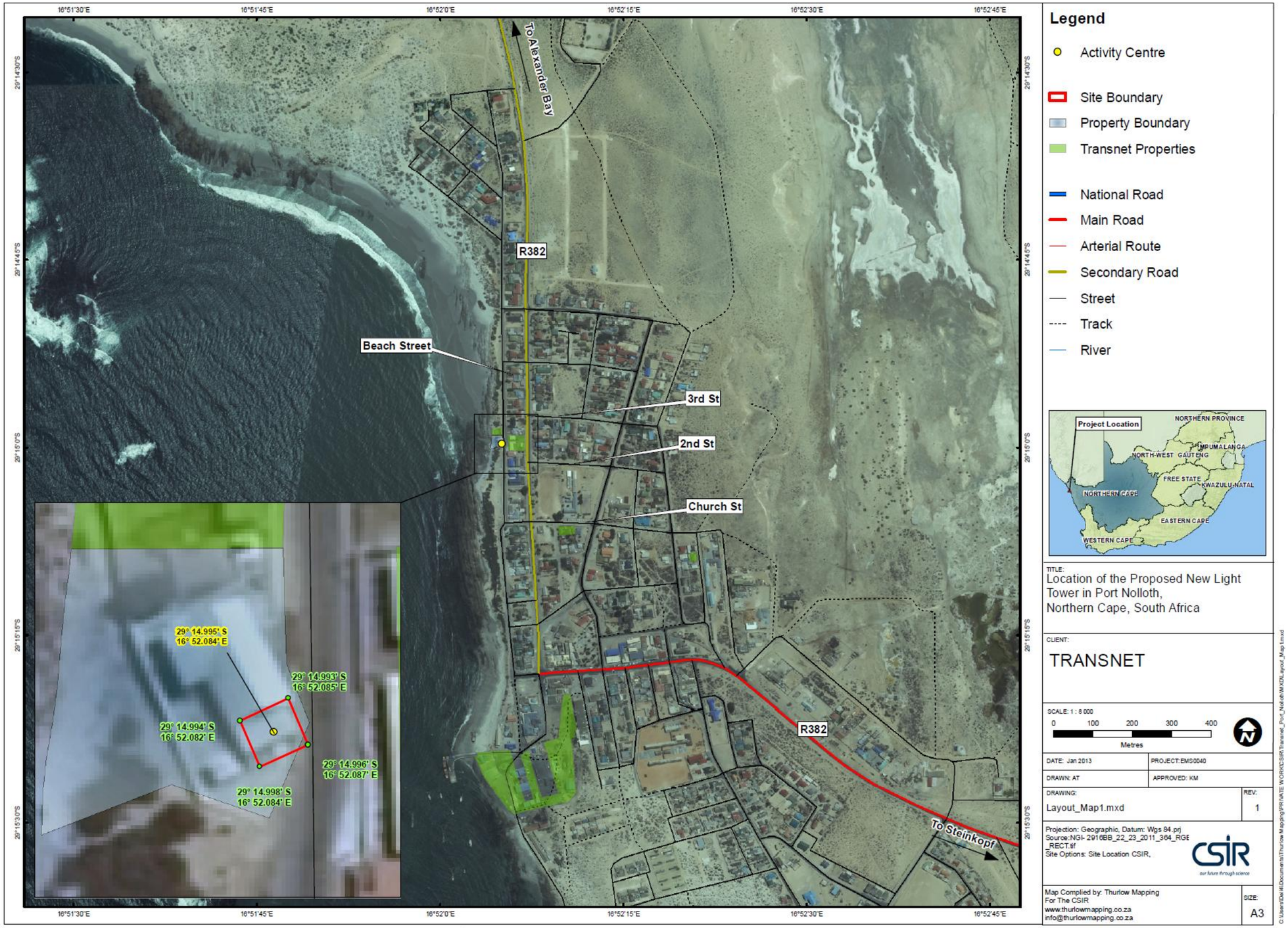
APPENDIX H: DETAILS OF EAP AND EXPERTISE

APPENDIX I: SPECIALIST'S DECLARATION OF INTEREST

APPENDIX J: ADDITIONAL INFORMATION

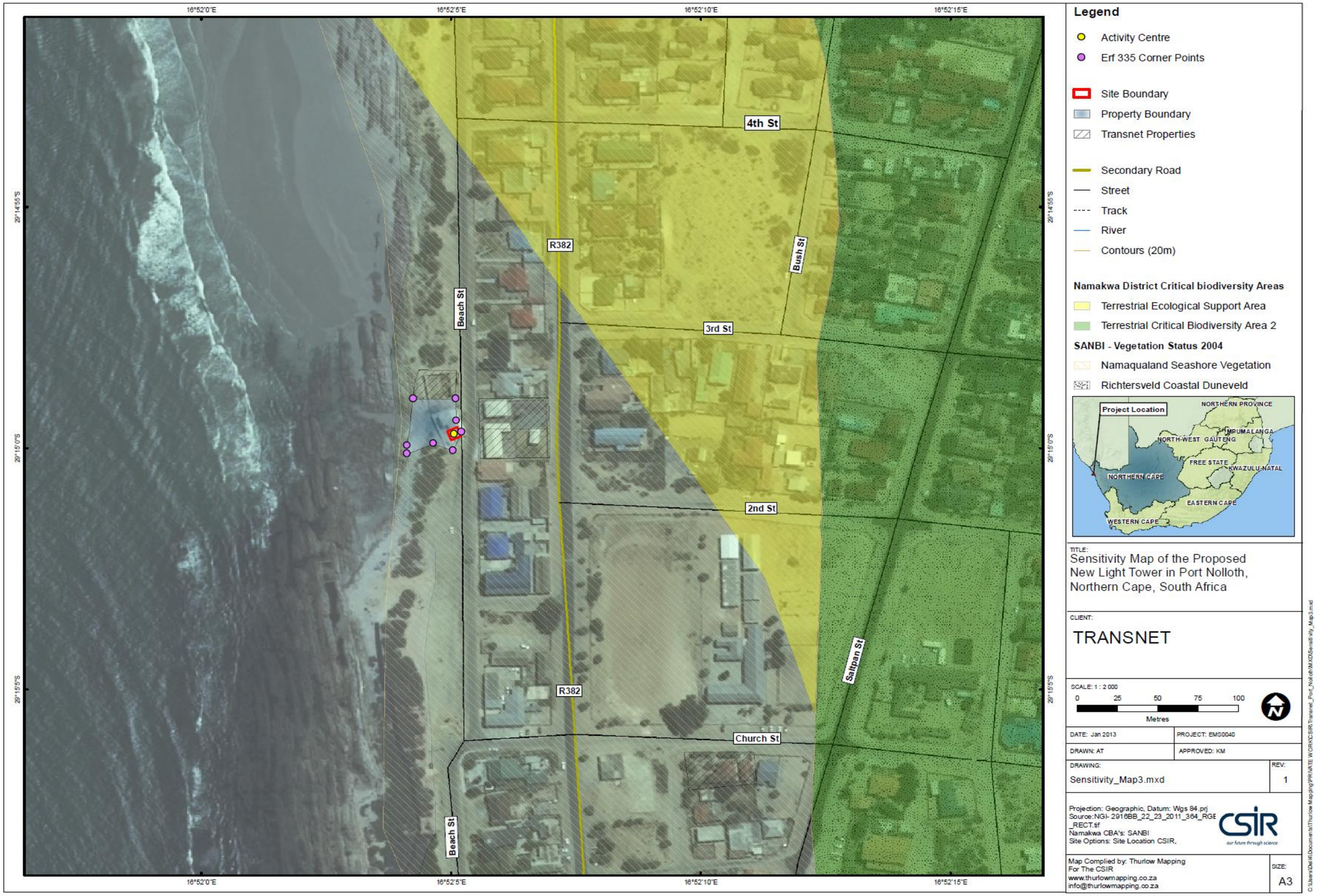
APPENDIX A: Site Plans

Appendix A.1: Locality map



Appendix A.2: Layout/Route Plan

Appendix A.3: Sensitivity Map



APPENDIX B: Photographs

Appendix B.1 PHOTOGRAPHS

- From 8 major compass directions

Appendix B.2 ADDITIONAL PHOTOGRAPHS

Figure 1: Front view of the existing lighthouse from Beach Street. This lighthouse will be decommissioned.

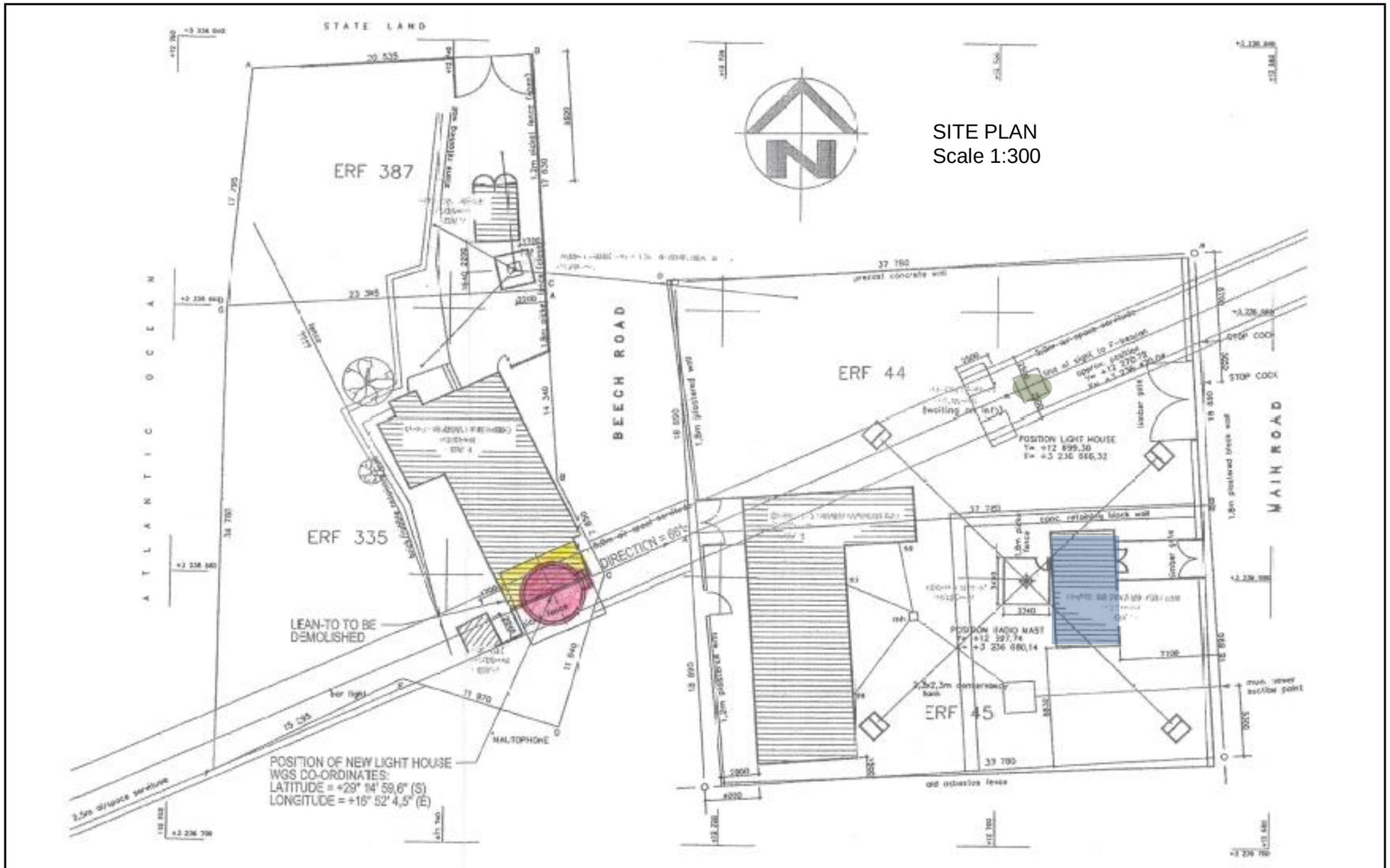
Figure 2: Side view of the existing lighthouse which will be decommissioned.

Figure 3: View of the site with the lean-to structure that will be demolished.

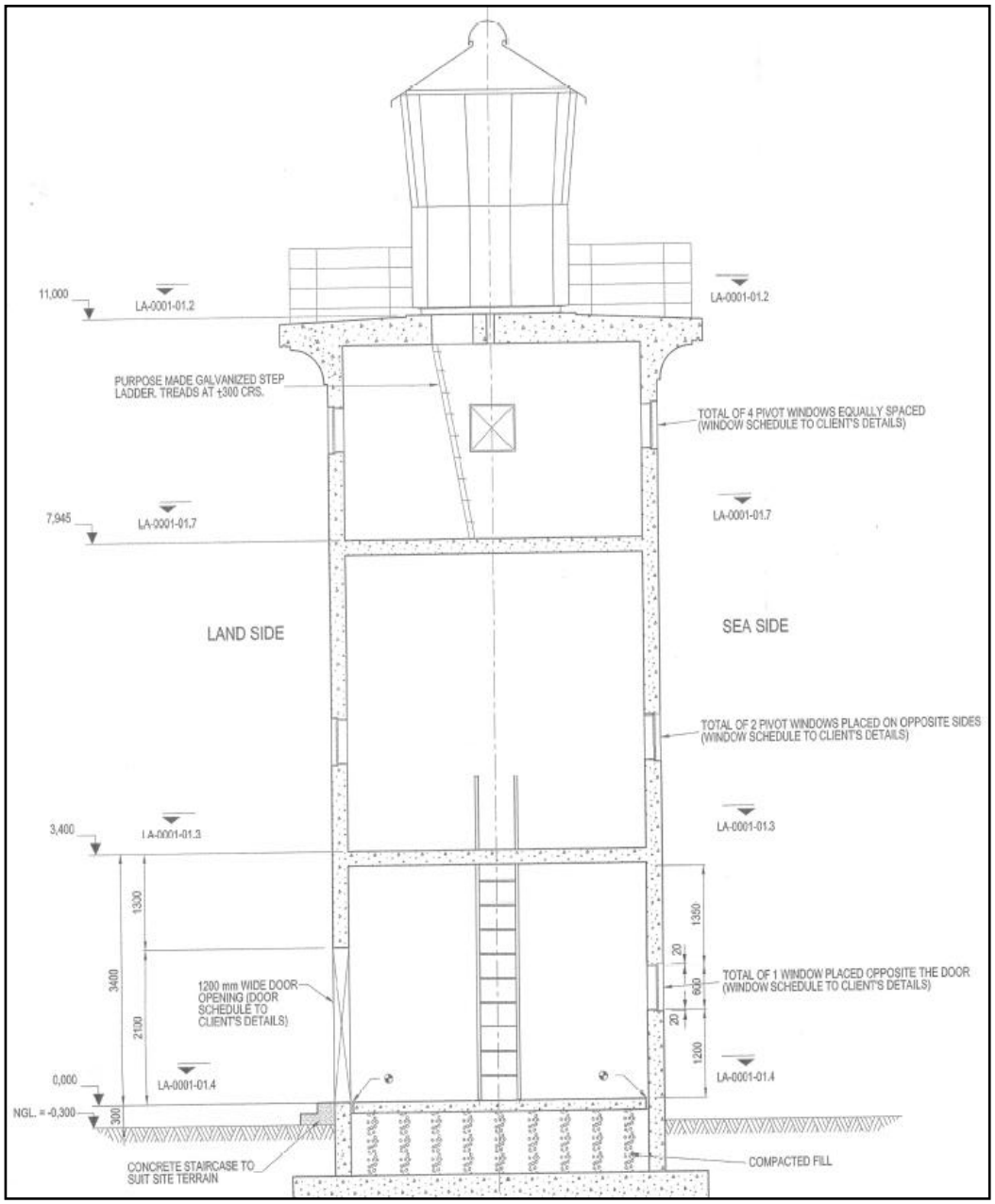
Figure 4: View of the existing engine room on ERF 45 which will connect to the new lighthouse.

APPENDIX C: Facility illustrations

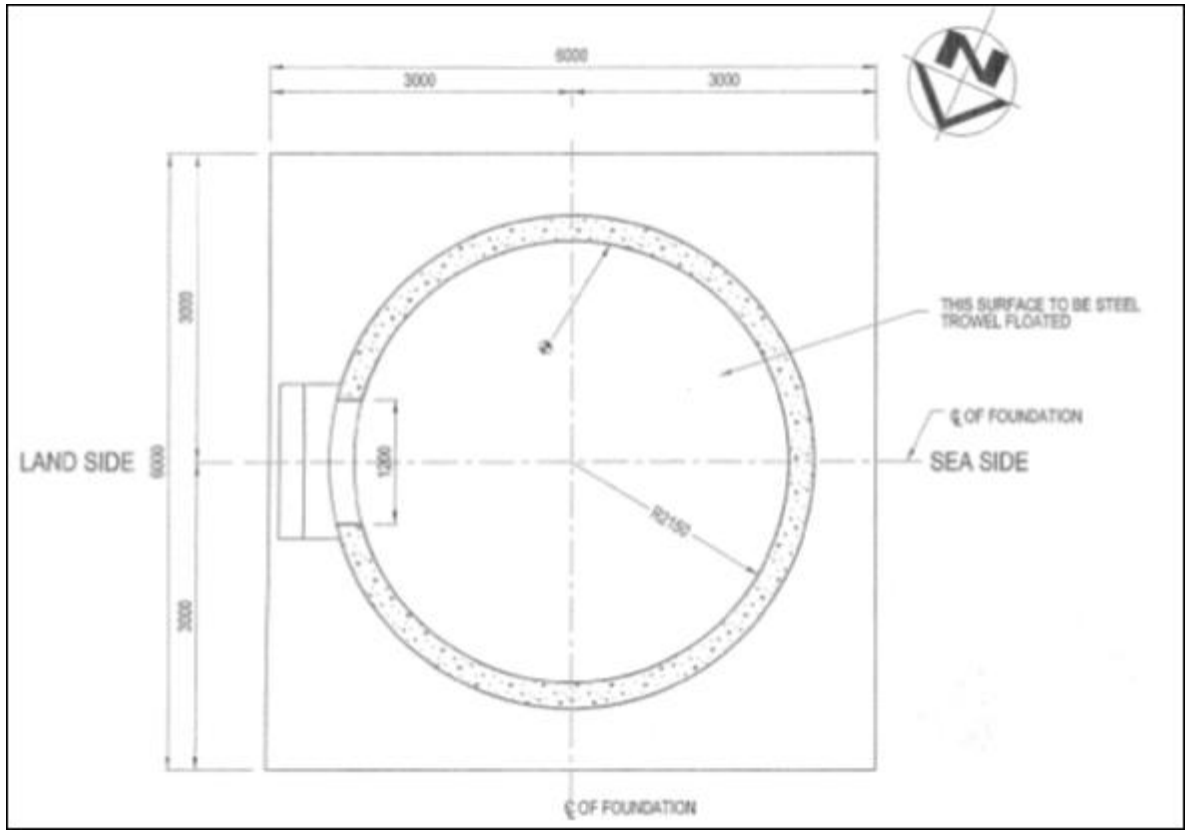
Appendix C.1: Site Layout



Appendix C.2: Conceptual Design of Tower Facility (Longitudinal profile)



Appendix C.3: Conceptual Design of Tower Facility (Cross – sectional profile)



APPENDIX D.1:
Heritage Impact Assessment

HERITAGE SPECIALIST REPORT CONDUCTED AS PART OF A BASIC ASSESSMENT FOR A PROPOSED NEW LIGHTHOUSE ON ERF 335, BEACH STREET, PORT NOLLOTH.

(Assessment conducted under Section 38(8) of the
National Heritage Resources Act 25 of 1999)

Prepared for:

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February 20131

Prepared by:

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SUMMARY

Transnet Rail Freight proposes the construction of a new Lighthouse on Erf 335 at Port Nolloth, Northern Cape Province. This has triggered a Basic Impact Assessment which is being conducted by the CSIR, Durban. The following report is the heritage component of the study.

The new lighthouse will replace an existing aluminium lattice-tower structure which has reached the end of it working life. The facility which will consist of an 11 m high concrete structure and lantern house will be built on Erf 335 immediately adjacent to the bungalow which serves as the Transnet staff quarters. The proposed activity will require the demolition of a small lean-to attached to the south gable of the staff quarters. The heritage status of the staff quarters bungalow was in question relative to its position in the history of Port Nolloth. A study was carried to establish its age.

The findings revealed that the structure was never one of the early buildings of Port Nolloth (established in 1860 onwards) but was probably built into its current form after 1955 with subsequent upgrades and modifications. The structure is of low heritage significance and not unique. The proposed demolition of the lean-to, to make way for the new lighthouse will not affect the status of this building.

No negative impacts will be experienced, however a positive gain for area will result as the envisaged lighthouse is designed in an aesthetically pleasing way to compliment the Beach Road streetscape.

No other mitigation measures are recommended, the proposed development activity is therefore supported.

CONTENTS

Glossary

***Archaeology**:* Remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures.

***Heritage**:* That which is inherited and forms part of the National Estate (Historical places, objects, fossils as defined by the National Heritage Resources Act 25 of 1999.

***National Estate**:* The collective heritage assets of the Nation

***Provincial Heritage site**:* A heritage site of such high significance that it is recognized by Government and proclaimed by Section 27 of the National Heritage Resources Act as having special protection.

SAHRA: South African Heritage Resources Agency – the compliance authority which protects national heritage.

***Structure (historic)**:* Any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith. Protected structures are those which are over 60 years old.

Acronyms

DEA	Department of Environmental Affairs
GPS	Global Positioning System
HIA	Heritage Impact Assessment
NHRA	National Heritage Resources Act
SAHRA	South African Heritage Resources Agency
PHS	Provincial Heritage site

1 INTRODUCTION

ACO Associates CC was appointed by the CSIR (Durban Office) to assess the potential impacts of the construction of a new light house at Port Nolloth. Transnet Rail Freight (RME) intend to replace an older aluminum lattice structure built in the mid-late 20th century which has reached the end of its working life. The proposal is to erect a new concrete tubular structure at a preferred site closer to the shoreline on Erf 335, Beach Street. The proposed project requires that a basic EIA process is undertaken of which this heritage report forms part of. In addition, indications are that a small part of a structure of low or little heritage significance will require demolition to accommodate the new structure.

1.1 *Terms of reference*

Tim Hart of the ACO had a number of discussions with CSIR personnel with respect to the project and the scope of work. Initially it was requested that the work focus on the demolition of the existing light house which was of unknown age, however a small amount of desktop work revealed it was less than 60 years of age and did not require any form of heritage permitting. The site for the new light house closer to the shoreline involves removing an addition to an existing building which may have been of heritage significance therefore the impact of demolishing a portion of this structure had to be assessed.

- ACO was required to undertake desktop research to determine the age of the building.
- Produce a specialist heritage report assessing the impact of the proposed demolition in terms of heritage significance.
- Engage with the Northern Cape Heritage authority with respect to the required permit applications (if applicable).

1.2 *Method*

This study is based on desktop research in that the site has not been physically inspected. Images of the study area are covered by Google Earth Street view. Information was obtained from secondary published sources (site specific information is scarce) and a survey of aerial photographs dating from 1937 until the present day obtained from the Chief Directorate: National Geo-spatial Information.

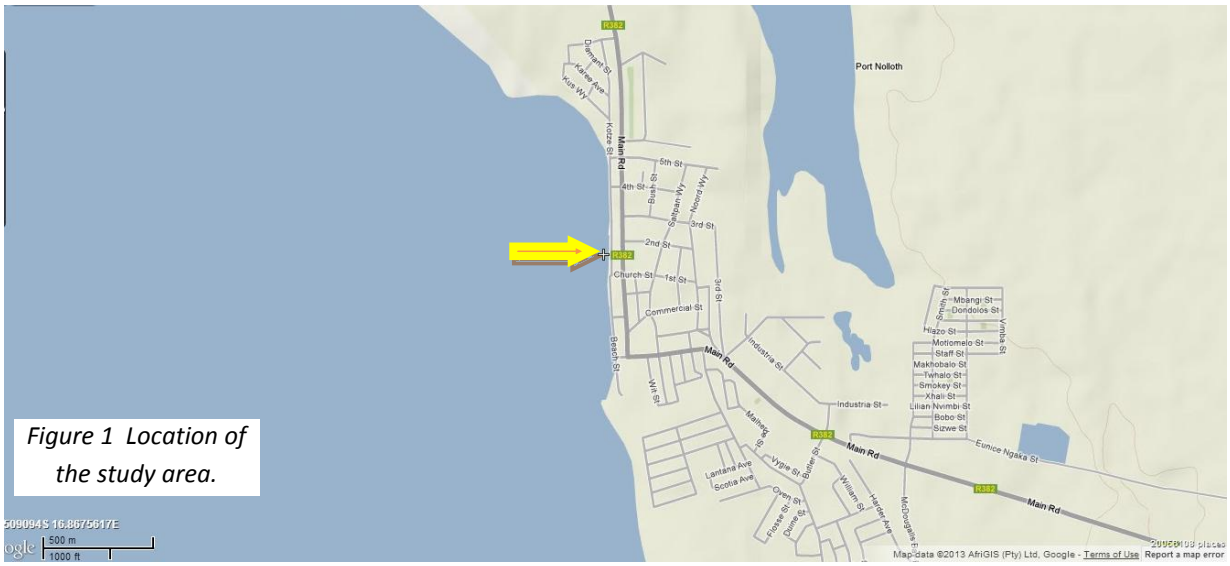


Figure 1 Location of the study area.

1.3 Limitations

This study has been carried out without a physical site inspection. However, Tim Hart is very familiar with Port Nolloth, the site and its context due to a long history of working in the area.

Plans of the proposed new lighthouse were made available for review and are included in Appendix A.

Historical aerial photography was of indifferent quality.

1.4 *Legislative Context*

The basis for all heritage impact assessments is the National Heritage Resources Act 25 (NHRA) of 1999, which in turn prescribes the manner in which heritage is assessed and managed. The National Heritage Resources Act 25 of 1999 has defined certain types of heritage resources as being worthy of protection, by either specific or general protection mechanisms. In South Africa the law is directed towards the protection of human made heritage, although places and objects of scientific importance are also covered.

As this development is the subject of a Basic Assessment (BA), heritage is dealt with under section 38 (8) of the NHRA. This requires that aspects of the NHRA are addressed as part of the BA. The Provincial Heritage Authority is a commenting authority and must determine if the BA process has adequately addressed heritage issues as required by the NHRA. A comment in this regards will be sent to Department of Environment Affairs or any other compliance authority involved.

The National Heritage Resources Act also protects intangible heritage such as traditional activities, oral histories and places where significant events happened. Generally protected heritage which must be considered in any heritage assessment includes:

- Buildings and structures;
- Archaeological sites (greater than 100 years of age);
- Paleontological sites and specimens;
- Shipwrecks and aircraft wrecks;
- Graves and grave yards; and
- Cultural Landscape

With respect to the last bullet, a Visual Impact Assessment (VIA) is being conducted by a VIA specialist. Nevertheless, in terms of Section 3 (2)(d) of the NHRA, No 25 of 1999, the national estate may include “landscapes and natural features of cultural significance”. It is therefore important that the VIA specialist examines the impact of the development on the cultural landscape or consults with a heritage practitioner in this regard.

While not specifically mentioned in the NHRA, No 25 of 1999, Scenic Routes are recognised by the Department of Environment Affairs and Development Planning (DEA&DP) as a category of heritage resources. In the DEA&DP Guidelines used for the Western Cape (referred to in the absence of guidelines for the Northern Cape) for involving heritage specialists in the EIA process, Baumann & Winter (2005) comment that the visual intrusion of development on a scenic route or place should be considered a heritage issue.

2 HERITAGE BACKGROUND

Within the context of the Northern Cape, Port Nolloth is a place of regional heritage significance as it was the first Port in the area and one of the earliest towns of the Province. Its existence is due to the presence of copper ore in Namaqualand – a fact that had originally been determined by Governor Van der Stel (and other early explorers) on one of his earlier explorations (Steenkamp, 1975). Indigenous people of the area, the Nama knew about the metal and had been trading in items made from native copper for millenia. The first commercial exploitation of copper commenced in the mid-19th century with commencement of mining at Okiep in 1852 by John Alexander (Smalberger, 1975), however exporting the ore down the escarpment and shipping it was a logistical nightmare. Attempts were even made to use lighters and barges on the Orange River however the varying flood levels of the river made this an unsustainable operation. The Government of the Cape commissioned various surveys to indentify a Port where suitable sized vessels could be accommodated (Steenkamp 1975, Smalberger 1975, Joel and Fold 2003). The site named Port Nolloth (after the surveyor who found it) was deemed appropriate. A jetty was built in 1855. A narrow-guage railway line (one of the first in the country) was built down the escarpment in 1874. Mules were used to haul the empty trucks up the escarpment while loaded trucks were allowed to "free-wheel" down to the Port under the control of the "brakemen" who controlled the descent. Eventually a steam locomotive (Clara) was acquired and provided safer service (Steenkamp, 1975). The railway line ended at the jetty at Port Nolloth where coasters (sail and steam) collected the ore. When the railway line was extended to Bitterfontein in the 1920's, Port Nolloth lost some status as ore was transported by road to the rail head which was favoured over the risky port. The entire landscape of early mining and industry (older than the diamond or gold mining enterprises in the interior) is considered to be a significant cultural landscape that is currently nominated for declaration as a UNESCO World Heritage Site.

The jetty at Port Nolloth is sheltered from the large Atlantic swells by an off-shore reef which serves as a natural wave breaker and makes bringing a sizeable ship into the Port possible (up to 500 tons). However, the same reef also makes navigation into the Port a challenge. The navigable gap through the reef is very small and there are virtually no margins for error. The safe route is marked by buoys and navigation lights. Masters of vessels have to align their ships with the markers to navigate the deep channel. Not with standing this, numerous wreckings have occurred due to often foggy conditions or heavy swell.

The importance of the Port received renewed significance after 1930 and the establishment of the West Coast diamond industry. It was used for the provisioning of the area, supplying of mining equipment as a base for local fishing and off-shore diamond mining. After a series of significant shipping disasters in the 1950's an attempt was made to regularise the Port for larger vessels. This involved widening the gap in the reef by blasting it open and deeper. This was achieved with limited success – the Port remains a challenge to navigate but was for a time regularly visited by coastal freighters and light tankers. Since the 1970's it has only been used by used by smaller fishing and diamond dredgers. Today siltation has taken place and dredging is required before larger vessels can enter (http://en.wikipedia.org/wiki/Port_nolloth).

2.1 The Proposed Project

The project involves the demolition of the aluminium lattice tower light house located on Erf 44, and its replacement with a new lighthouse located in a more visible and suitable position on Erf 335. The new lighthouse will be a concrete tubular structure of 11 m in height and 4m in width. The

lantern house will be constructed on a concrete slab on top of the column. The lantern house will contain a bulb (100 watts) and rotating lens system projecting 6-8 thin beams which will be blanked off on the landward side. The new light house position is closer to (if not on) the original site of the 1905 lighthouse which was demolished in the 1970's.

2.2 The study area

The study area consists of a single structure on the seaward side of the coastal road. It is a single story bungalow with an asbestos roof which is used as staff quarters for Transnet personnel. The joinery and fenestration is typically mid-late 20th century, the building which is owned by Transnet is maintained in good condition. A small lean-to has been constructed on the south side gable of the building. This lean-to will have to be demolished to make way for the new lighthouse building which will be on Transnet Property. The age of the bungalow has been in question, so a brief study has been conducted to establish its possible age with a view to determining whether it should be graded or not and what the impact of its alteration will be.

A small structure nearby consists of an explosive magazine said to have been built in the early 20th century (confirmed to exist in 1937 by aerial photography).

The staff quarters is situated on the seaward side of Beach Street. Beach Street is a residential sea-side street which constrains an historic conservation area (south of the study area) well known for the Bedrock Lodge and its associated 19th century cottages and Museum (Figure 1).

Figure 2 The existing lighthouse.

Figure 3 The structure which is the subject of this enquiry. The lean-to extension to the building requires demolition. View is from south to north. The pitched roof bungalow and magazine is to remain.

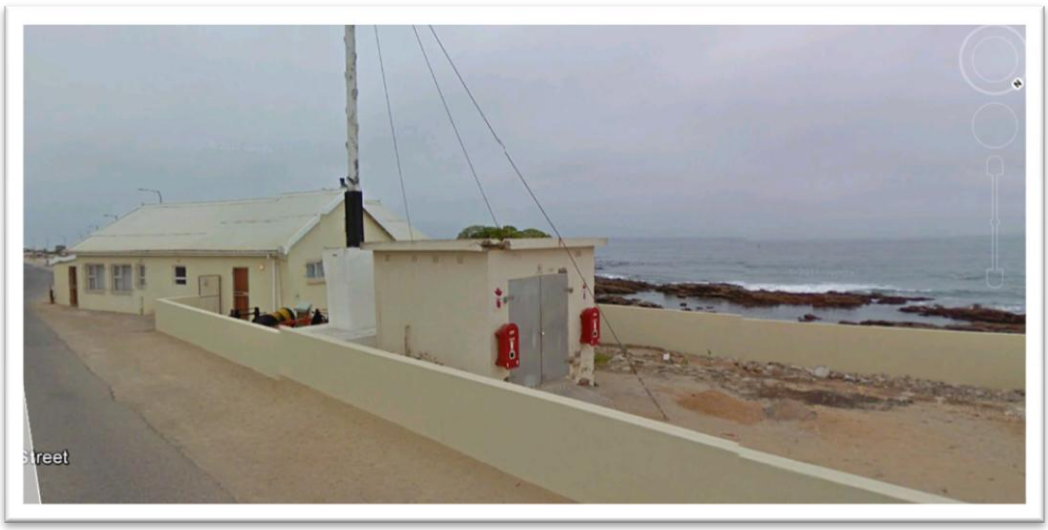


Figure 4 View of the structure from north to south.

3 FINDINGS

The study revealed that the bungalow was not present in 1937, but the adjacent magazine was in place (see *Figure 5*).

Figure 3 Excerpt from 1937 aerial photograph indicating the magazine. This is the only structure visible on the western side of Beach Street.

The aerial photograph of 1955 (*Figure 6)* indicates the presence of a structure of increased size which may be the beginnings of the bungalow in question. Beach Street is substantially more developed with noticeable densification.

Figure 4 Notwithstanding the poor quality of this 1955 aerial photograph, there is an indication of a structure at the study area – it is unclear if this is the old light house or a building.

In all likelihood the building in its present form postdates 1955. It could further be suggested that its presence correlates to attempts to regularize the Port after the shipping disasters of 1955 with the construction of a building – possibly to manage engineering and Port related activities.

The structure in question is for the main part relatively recent and dubiously greater than 60 years of age. It has been maintained, modernized and in our opinion not worthy of inclusion of a regional heritage register nor is it worthy of formal grading. The only element worth grading is the explosive magazine (suggest IIIB-C). The proposed new lighthouse has minor consequences for the structure. The lean-to is quite recent and its removal will not detract from significance.

There is little lateral flexibility for positioning the new light house as it fulfills an essential navigation role. The position of the light house will not result in consequences that will detract from the character of the town; however the construction of an un-aesthetically appealing lighthouse will not contribute to the sense of place or the aesthetics of the Beach Street precinct. Plans supplied by the proponent are included in Appendix A. These depict a simple traditional design that will add value and interest to the streetscape and town at large.

Although archaeological material in the form of coastal shell middens is prolific around Port Nolloth, indications are that the study area is too transformed to be considered archaeologically sensitive.

3.1 Assessment of Impacts

The proposed activity will have a negligible impact on all generally protected heritage. The site specific impact will be the demolition of a lean-to structure affixed to the south gable of the Transnet staff quarters. The main bungalow is of very low heritage significance, the demolition of the lean-to will have no negative impacts at all.

The existing aluminum lighthouse expresses itself as a utilitarian and somewhat odd structure does not “read” as a lighthouse to the casual observer. It is without argument one of the most un-appealing structures within the context of this country’s rich lighthouse heritage. The construction of a more formal and recognizable structure within the Transnet owned enclave will better the landmark status and add a feature of interest to the Beach Street precinct.

Table 1 Assessment of heritage impacts

Impact description	Status	Extent	Duration	Reversibility	Irreplaceability	Intensity/ Magnitude	Probability	Significance (without mitigation)	Mitigation	Significance (with mitigation)	Confidence level
Demolishing the lean-to	Positive	Impact is local in extent and furthermore will be of benefit to the Beach Road streetscape in that it will create a new landmark and point of interest.	Permanent	High	High	Low	Definite	Medium	N/A	Low	High

4 CONCLUSION

There are no reasons in heritage terms why the proposed activity should not take place. There are no heritage resources that will be either direct or indirectly impacted. This report finds that the proposed action should be supported and that no further studies are required. The proposed design of the new lighthouse is appropriate.

4.1 Mitigation

The magazine adjacent to the staff building is the only structure of any heritage significance and as such should be continue to be conserved.

This report along with the basic assessment should be sent to the heritage compliance authority of the Northern Cape. The authority will issue a record of comment which will either support or dismiss the application to demolish, or request further information. It is anticipated the Northern Cape heritage authority will issue the requisite permit for the proposed development. A demolition permit application has been obtained from Ngwao Boswa Kapa Bokoni (NBKB) – the Heritage Authority of the Northern Cape.

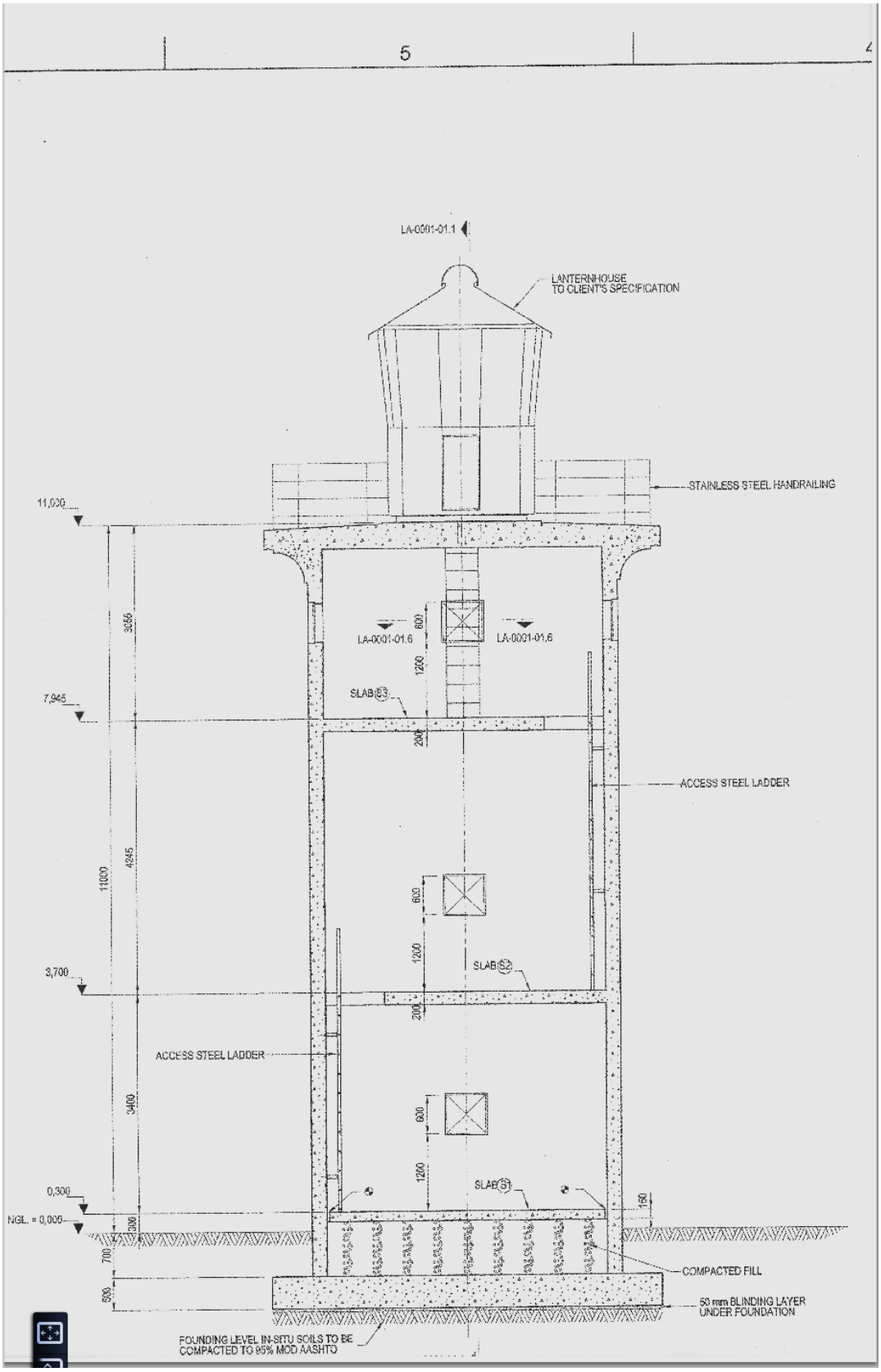
5 REFERENCES

Aerial Photographs (historic series) Chief Directorate: National Spatial Information, Mowbray, Cape Town.
Jowell, P and Fold A. 2003. Into Kokerboom Country. Johannesburg: Fernwood press.
Smalberger, J. 1975. A history of mining in Namaqualand. Johannesberg: Struik.
Steenkamp, W. 1975. Land of the Thirst King. Cape Town: Howard Timmins.

APPENDIX A

Drawings of proposed site and structure provided by proponent.

- Site plan
- Elevation drawing of proposed lighthouse
- Sections of proposed lighthouse.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SLAB S2
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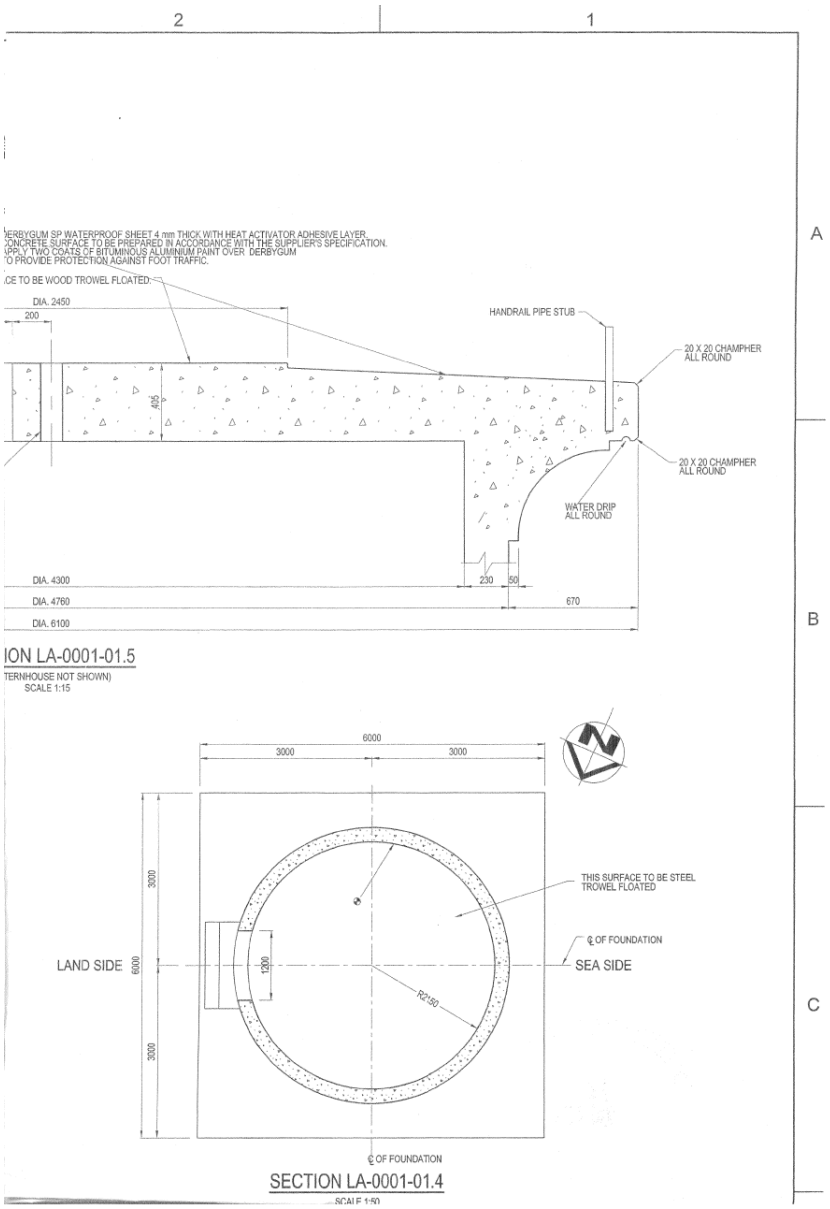
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O PROVIDE PROTECTION AGAINST FOOT TRAFFIC.
CE TO BE WOOD TROWEL FLOATED.
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HANDRAIL PIPE STUB
20 X 20 CHAMPHER ALL ROUND
20 X 20 CHAMPHER ALL ROUND
WATER DRIP ALL ROUND
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APPENDIX D.2:
Visual Impact Assessment

Basic Assessment for the Proposed Port Nolloth Lighthouse Project, Richtersveld Local Municipality, Northern Cape

Prepared for:

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4013

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Phone 031 2422385
Fax 031 2612509

February 2013

Prepared by:

Henry Holland – MapThis Trust
8 Cathcart Street
Grahamstown, 6139
South Africa

SUMMARY

This report presents the findings of the visual specialist study undertaken by Henry Holland of map(This); as part of the basic assessment being conducted by the CSIR for the proposed Transnet Freight Rail (RME) lighthouse in Port Nolloth, Northern Cape.

The significance of visual intrusion of construction activity on sensitive viewers medium due to the high intensity of the impact on a small number of viewers before mitigation and low after mitigation. Mitigation measures include keeping a tidy construction site and minimal lighting of the site at night.

The significance of visual intrusion of a lighthouse on the views of sensitive visual receptors is medium due to its moderate intensity (some sea views will potentially be altered/intruded by the proposed lighthouse). Impact status for highly affected visual receptors will be neutral overall since removal of the existing lighthouse will improve some sea views. In general the new lighthouse will have a positive impact since it will be aesthetically more pleasing than the existing lattice structure.

The existing lighthouse, and the fact that lighthouses are expected features of a coastline, means that the overall visual intrusion will be low. Maintenance of the lighthouse exterior will ensure a positive visual impact for most visual receptors in the region.

Table 1 Summary of visual impact criteria.

Criteria	*Impact*
Viewer Sensitivity	Residents of Port Nolloth – **Highly** sensitive, particularly if they currently have sea views which will be affected or obscured by the proposed lighthouse. Residents and viewpoints on surrounding farms – **Moderately** sensitive since they have an active interest in their surrounding landscape, but the landscape has been considerably altered by mining activity. Visual receptors in Richtersveld National Park – **Moderately** sensitive since the landscape between them and the development is highly transformed by mining activity. Motorists – **Low to moderate** sensitivity due to short exposure time and the fact that their focus on landscape is reduced. Tourists driving along the major roads will be more interested in the landscape.
Visibility of Development	**High** if offshore viewshed is taken into consideration; **moderate** onshore.
Visual Exposure	Residents of Port Nolloth – a number of residents will potentially be **highly** exposed to the proposed lighthouse due to their proximity to the proposed site. Residents and viewpoints on surrounding farms – **Low** visual exposure due to distances involved. Visual receptors in Richtersveld National Park – **Low** visual exposure due to distance of park from development site. Motorists – **high** visual exposure for short sections of the R382 north of Port Nolloth.
Visual Intrusion	Residents of Port Nolloth – generally **low** intrusion on views since residents are used to a lighthouse in town. A few sea views (unaffected by the existing lighthouse) may be highly intruded on or even obscured by the lighthouse, while a some sea views may be improved by removal of the existing lighthouse. Residents and viewpoints on surrounding farms – **Low** visual intrusion since lighthouses are common features of coastlines and the proposed lighthouse will fit into its surroundings. Visual receptors in Richtersveld National Park – **Low** visual intrusion since lighthouses are common features of coastlines and the proposed lighthouse will fit into its surroundings. Motorists – **Low** visual intrusion since lighthouses are common features of coastlines and the proposed lighthouse will fit into its surroundings.

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LIST OF ABBREVIATIONS

AMSL	Above mean sea level
DEM	Digital Elevation Model
DTM	Digital Terrain Model
EIA	Environmental Impact Assessment
ENPAT	Environmental Potential Atlas
GIS	Geographic Information System
GLVIA	Guideline for Involving Visual and Aesthetic Specialists in EIA Processes
IDP	Integrated Development Plan
IUCN	International Union for Conservation of Nature
I&APs	Interested and Affected Parties
SANBI	South African National Biodiversity Institute
STEP	Subtropical Thicket Ecosystem Project
ToR	Terms of Reference
VIA	Visual Impact Assessment
WPDA	World Database on Protected Areas
ZTV	Zone of Theoretical Visibility
ZVI	Zone of Visual Influence

GLOSSARY OF TERMS USED IN THE VISUAL ASSESSMENT

Cumulative viewshed	A viewshed which indicates in some way how much of a development is visible from a particular viewpoint. In a raster based cumulative viewshed each pixel value will indicate how many points within the development area are visible. A power line development could, for example, use pylons as points to generate a cumulative viewshed for the development. Each pixel value in the viewshed will be a count (accumulation) of the number of pylons that will potentially be visible from that pixel.
Digital Elevation Model (DEM)	A digital or computer representation of the topography of an area.
Landscape baseline	A description of the existing elements, features, characteristics, character, quality and extent of the landscape (GLVIA, 2002).
Landscape character	The distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of the landscape (GLVIA, 2002).
Landscape character sensitivity	This provides an indication of the ability of a landscape to absorb change from the proposed development without changing character. A pristine landscape prized for its natural beauty, or a landscape of high cultural value will have high sensitivity to changes brought about by new developments.
Landscape impacts	Change in the elements, characteristics, character and qualities of the landscape as the result of development (GLVIA, 2002). These effects can be positive or negative, and result from removal of existing landscape elements, addition of new elements, or the alteration of existing elements.
Memorability	The quality of being worth remembering; "continuous change results in lack of memorability"; "true memorability of phrase"
Nature-based tourism	Tourism that involves travelling to relatively undisturbed natural areas with the specific objective of studying, admiring and enjoying the scenery, fauna and flora, either directly or in conjunction with activities such as trekking, canoeing, mountain biking, hunting and fishing (Turpie *et al*. 2005)
Principal representative viewpoints	Principal representative viewpoints are identified during the visual baseline desk study and field survey. They should be representative of the visual amenity of the area and include walking public footpaths and visiting areas of open public access. A comprehensive photographic record of these points supports the visual impact assessment (GLVIA, 2002)
Receptor	An element or assemblage of elements that will be directly or indirectly affected by the proposed development.
Sense of place	That distinctive quality that makes a particular place memorable to the visitor, which can be interpreted in terms of the visual character of the landscape. The unique quality or character of a place, whether natural, rural or urban. Relates to uniqueness, distinctiveness or strong identity (Oberholzer 2005).
Viewer sensitivity	The assessment of the receptivity of viewer groups to the visible landscape elements and visual character and their perception of visual quality and value. The sensitivity of viewer groups depends on their activity and awareness within the affected landscape, their preferences, preconceptions and their opinions.
Viewshed	A viewshed is an area of land, water, and other environmental elements that is visible from a fixed vantage point. In digital imaging, a viewshed is a binary raster indicating the visibility of a viewpoint for an area of interest. A pixel with a value of unity indicates that the viewpoint is visible from that pixel, while a value of zero indicates that the viewpoint is not visible from the pixel.

Visibility of Project	The geographic area from which the project will be visible, or view catchment area. (The actual zone of visual influence of the project may be smaller because of screening by existing trees and buildings). This also relates to the number of receptors affected (Oberholzer 2005)
Visual absorption capacity (VAC)	Visual Absorption Capacity signifies the ability of the landscape to accept additional human intervention without serious loss of character and visual quality or value. VAC is founded on the characteristics of the physical environment such as vegetative screening, diversity of colours and patterns and topographic variability. It also relates to the type of project in terms of its vertical and horizontal scale, colours and patterns. A high VAC rating implies a high ability to absorb visual impacts while a low VAC implies a low ability to absorb or conceal visual impacts.
Visual amenity	The value of a particular area or view in terms of what is seen. (GLVIA, 2002)
Visual baseline	A description of the extent and nature of existing views of the site from representative viewpoints, and the nature and characteristics of the visual amenity of the potentially sensitive visual receptors (GLVIA, 2002)
Visual envelope	The approximate extent within which the development can be seen. The extent is often limited to a distance from the development within which views of the development are expected to be of concern.
Visual exposure	Visual exposure refers to the relative visibility of a project or feature in the landscape (Oberholzer, 2005). Exposure and visual impact tend to diminish exponentially with distance.
Visual impact	Changes to the visual character of available views resulting from the development that include: obstruction of existing views; removal of screening elements thereby exposing viewers to unsightly views; the introduction of new elements into the viewshed experienced by visual receptors and intrusion of foreign elements into the viewshed of landscape features thereby detracting from the visual amenity of the area.
Visual impact assessment	A specialist study to determine the visual effects of a proposed development on the surrounding environment. The primary goal of this specialist study is to identify potential risk sources resulting from the project that may impact on the visual environment of the study area, and to assess their significance. These impacts include landscape impacts and visual impacts.
Visual intrusion	Visual intrusion indicates the level of compatibility or congruence of the project with the particular qualities of the area – its 'sense of place'. This is related to the idea of context and maintaining the integrity of the landscape (Oberholzer 2005).
Visual quality	An assessment of the aesthetic excellence of the visual resources of an area. This should not be confused with the value of these resources where an area of low visual quality may still be accorded a high value. Typical indicators used to assess visual quality are vividness, intactness and unity. For more descriptive assessments of visual quality attributes such as variety, coherence, uniqueness, harmony, and pattern can be referred to.
Visual receptors	Visual receptors include viewer groups such as the local community, residents, workers, the broader public and visitors to the area, as well as public or community areas from which the development is visible.
Visual resource	Visual resource is an encompassing term relating to the visible landscape and its recognisable elements which, through their coexistence, result in a particular landscape and visual character
Zone of visual influence (ZVI)	The extent of the area from which the most elevated structures of the proposed development could be seen and may be considered to be of interest (see visual envelope or viewshed).

1 INTRODUCTION

This report presents the findings of the visual specialist study undertaken by Henry Holland of map(this); as part of the basic assessment being conducted by the CSIR for the proposed Transnet Freight Rail (RME) lighthouse in Port Nolloth, Northern Cape.

1.1 APPROACH TO STUDY

1.1.1 Guiding Concepts for Visual Assessments

This visual impact assessment (VIA) is based on guidelines for visual assessment specialist studies as set out by South Africa's Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) (Oberholzer, 2005) as well as guidelines provided by the Landscape Institute of the UK (GLVIA, 2002). The DEA&DP guideline recommends that a visual impact assessment consider the following specific concepts (from Oberholzer 2005):

- An awareness that 'visual' implies the full range of visual, aesthetic, cultural and spiritual aspects of the environment that contribute to the area's sense of place.
- The considerations of both the natural and cultural landscape, and their interrelatedness.
- The identification of all scenic resources, protected areas and sites of special interest, together with their relative importance in the region.
- An understanding of the landscape processes, including geological, vegetation and settlement patterns, which give the landscape its particular character or scenic attributes.
- The need to include both quantitative criteria, such as 'visibility', and qualitative criteria, such as aesthetic value or sense of place.
- The need to include visual input as an integral part of the project planning and design process, so that the findings and recommended mitigation measures can inform the final design, and hopefully the quality of the project.
- The need to determine the value of visual/aesthetic resources through public involvement.

1.1.2 Terms of Reference

Desktop Review
The desktop review informs the rest of the assessment process in terms of documentation (e.g. municipal and regional planning policy, spatial development frameworks, legislation, national and international examples of similar developments) and availability of data (sensitive landscapes and visual receptors, spatial data for visibility analyses and landscape assessment). It also provides a basis for evaluating the confidence levels for the overall assessment.

Desktop Analysis

- A GIS and available spatial data will be used during the preliminary study to determine:
- Areas of scenic interest (Nature Reserves, sites of cultural importance, heritage sites)
- Potential sensitive receptors (viewpoints, residences)
- Preliminary zone of visual influence
- Principal representative viewpoints
- Photographic record of the visual baseline for views from principal viewpoints (photos will be provided)

- The actual zone of visual influence by determining the effect of vegetation, buildings and topography on visibility in the study area.
- Identification of sensitive receptors (viewers and landscape elements that will be affected by the proposed development).

Visual Baseline

Information gathered during the desktop survey on the influence of vegetation and topography on the potential visibility of the lighthouse will provide a basis for determining the Zone of Visual Influence and the practical extents of the area for which the visibility analyses will be done. The visual absorption capacity (VAC) for the area will be determined to aid in site selection and mitigation. Cumulative viewsheds will be calculated for various components of the development. The viewsheds will be used to determine the potential visibility of the various sites and elements, as well as to identify and classify visual receptors (viewers and principal representative viewpoints) in terms of their sensitivity to changes in the quality of their views.

Potential Visual Impacts

- A number of factors are used to assess the magnitude and significance of the potential visual impact of a development:
- Potential visibility of the development;
- Sensitivity of visual receptors to changes in the quality of their views;
- Distance of the development from sensitive viewers (visual exposure);
- Compatibility of the development with the 'sense of place' of the area (visual intrusion);
- Potential visual impacts will be discussed in terms of these factors for construction and operational phases.

Mitigation

The report will focus on measures to reduce negative aspects, compensatory measures to offset negative aspects, and enhancement of positive aspects. Indicators for monitoring the efficacy mitigation measures will be suggested.

1.1.3 Assumptions and Limitations

Spatial data used for visibility analysis originate from various sources and scales. Inaccuracy and errors are therefore inevitable. Where relevant these will be highlighted in the report. Every effort was made to minimize their effect on the assessment.

1.1.4 Information Base

The visual study is based on the following information:

- Documentation supplied by the client and the CSIR;
- ToR for the visual specialist;
- Digital topocadastral data at 1:50 000 scale from the National Geo-spatial Information database (http://www.ngi.gov.za/);
- Google Earth software and data.
- South African digital land cover dataset of 2002 (Majeke *et al*. 2002);
- Eskom SPOT Building Count data set of (De la Rey 2008).

- Garmin map data (2011) for 'points of interest' layer.

2 APPROACH AND METHODOLOGY

2.1 LANDSCAPE DESCRIPTION

A desktop study is conducted to establish and describe the landscape character of the receiving environment. A combination of data analysis using a Geographic Information System (GIS) and literature review is used to identify land cover, landforms and land use in order to gain an understanding of the current landscape within which the development will take place (GLVIA 2002). Landscape features of special interest are identified and mapped, as are landscape elements that may potentially be affected by the development.

2.2 VISUAL IMPACT ASSESSMENT

A GIS is used to calculate viewsheds for various components of the proposed development. The viewsheds are used to define criteria such as visibility, viewer sensitivity, visual exposure and visual intrusion for the proposed development. These criteria are, in turn, used to determine the intensity of potential visual impacts on sensitive viewers. All information and knowledge acquired as part of the assessment process are then used to determine the potential significance of the impacts according to the standardised rating methodology as described in the Terms of Reference (ToR) document and relevant chapter in the Basic Assessment Report (BAR).

2.3 STATEMENT OF CONFIDENCE AND INDEPENDENCE

Henry Holland has been applying his Geographic Information Systems knowledge and experience to visual impact assessments since 1997, and has conducted a number of assessments for various development types throughout South Africa. These include wind- and solar energy projects, desalination plants and other industrial developments. He has extensive practical knowledge in spatial analysis, landscape analysis and environmental modelling, and has been involved in many environmental management projects as GIS coordinator and analyst since 1992.

Henry has undertaken this work for the lighthouse project in Port Nolloth proposed by Transnet Freight Rail (RME), as an independent visual specialist, working in accordance with international and national guidelines for visual impact assessments. He has no vested interest in the proposed project.

3 PROJECT DESCRIPTION

3.1 OVERVIEW OF PROJECT

Transnet Freight Rail (RME), a division of Transnet Ltd., proposes to construct and operate a lighthouse in Port Nolloth. The existing lattice lighthouse structure on an adjacent property will be demolished.

3.2 PROJECT COMPONENTS AND ACTIVITIES

3.2.1 Construction

The following main components related to construction activities will potentially cause visual impacts:

- A temporary site compound for contractors and laydown area for equipment and materials.
- Removal of existing lean-to structure on construction site.

3.2.2 Operational lighthouse

- Concrete lighthouse structure with a height of 11 m and internal diameter of 4 m.
- Lantern house, 2.7 m high and 2.4 m diameter, on top of the concrete tower.
- Moving light visible at night for a distance of between 28 km and 40 km.

4 DESCRIPTION OF RECEIVING ENVIRONMENT

Port Nolloth is located on a broad, flat coastal plain with dry pans and dune fields. Inland the landscape becomes more rugged with low, open hills giving way to steeper, rocky hills. Drainage is mostly in the form of dry river beds and non-perennial streams.

Port Nolloth is the largest town in the Richtersveld Municipality and developed mainly as a service centre for surrounding mining industry (first copper and then diamond mining). It has a shallow port and some light industry. The town does have some tourist traffic but is visited mostly on the way north to Alexandria Bay.

The R382 between Port Nolloth and Steinkopf connects the town to the N7 national route, while towards the north it is the main route to Alexandria Bay.

Opencast diamond mining has transformed most of the landscape surrounding Port Nolloth.

5 IDENTIFICATION OF ISSUES AND IMPACTS

The following potential issues relevant to visual and aesthetic impacts will be investigated in this report:

- Visual intrusion of the proposed lighthouse on existing views of residents and visitors in Port Nolloth.
- Visual impact of lighthouse signal on nightscape of the region.

6 PERMIT REQUIREMENTS

There are no permit requirements related to visual or landscape impact.

7 ASSESSMENT AND MITIGATION OF IMPACTS

The assessment and mitigation of impacts is conducted in the following steps:

- Identification of visual impact criteria (key theoretical concepts).
- Conducting a visibility analysis.
- Assessment of impacts of the project on the landscape and on receptors (viewers) taking into consideration factors such as sensitive viewers and viewpoints, visual exposure and visual intrusion.

7.1 VISUAL IMPACT CONCEPTS AND ASSESSMENT CRITERIA

7.1.1 Visual assessment criteria used in assessing magnitude and significance

The potential visual impact of the proposed lighthouse facility is assessed using a number of criteria which provide the means to measure the magnitude and determine the significance of the potential impact (Oberholzer, 2005). The **visibility** (Section 7.1.2) of the project is an indication of where in the region the development will potentially be visible from. The rating is based on viewshed size only and is an indication of how much of a region will potentially be affected visually by the development. A high visibility rating does not necessarily signify a high visual impact, although it can if the region is densely populated with sensitive visual receptors. **Viewer (or visual receptor) sensitivity** (Section 7.1.3) is a measure of how

sensitive potential viewers of the development are to changes in their views. Visual receptors are identified by looking at the development viewshed, and include scenic viewpoints, residents, motorists and recreational users of facilities within the viewshed. A large number of highly sensitive visual receptors can be a predictor of a high **intensity/magnitude** visual impact although their distance from the development (measured as **visual exposure** – Section 7.1.4) and the current composition of their views (measured as **visual intrusion** – Section 7.1.5) will have an influence on the significance of the impact.

7.1.2 Visibility

Visibility of Project	The geographic area from which the project will be visible, or view catchment area. (The actual zone of visual influence of the project may be smaller because of screening by existing trees and buildings). This also relates to the number of receptors affected (Oberholzer, 2005). • *High visibility* - visible from a large area (e.g. several square kilometres). • *Moderate visibility* – visible from an intermediate area (e.g. several hectares). • *Low visibility* – visible from a small area around the project site.

In this report there is also another sense in which 'visibility' is used. Cumulative viewsheds indicate not only where a feature is visible from (the meaning of visibility as used in the definition above), but also how much of the feature will be visible from that point or area.

In terms of the definitions above the visibility of the project will potentially be high, but most of this area is offshore (Map 10-2). Table 1 shows that the viewshed over land is much smaller than offshore.

Table 1 Viewshed area size for a region up to 10 km from the proposed site.

Viewshed	Area (km^2)
Onshore	21
Offshore	128
Total	149

7.1.3 Sensitive Viewers and Viewpoints

Viewer sensitivity	The assessment of the receptivity of viewer groups to the visible landscape elements and visual character and their perception of visual quality and value. The sensitivity of viewer groups depends on their activity and awareness within the affected landscape, their preferences, preconceptions and their opinions.

A rating system provided by the Landscape Institute of the United Kingdom was used to determine viewer sensitivity:

	Definition (GLVIA, 2002)
Exceptional	Views from major tourist or recreational attractions or viewpoints promoted for or related to appreciation of the landscape, or from important landscape features.
High	Users of all outdoor recreational facilities including public and local roads or tourist routes whose attention may be focussed on the landscape; Communities where the development results in changes in the landscape setting or valued views enjoyed by the community; Residents with views affected by the development.
Moderate	People engaged in outdoor sport or recreation (other than appreciation of the landscape).
Low	People at their place of work or focussed on other work or activity; Views from urbanised areas, commercial buildings or industrial zones; People travelling through or passing the affected landscape on transport routes
Negligible (uncommon)	Views from heavily industrialised or blighted areas.

The following sensitive viewers or viewpoints were identified:

- Residents of Port Nolloth and its suburbs;
- Residents and viewpoints on surrounding farms;
- Visual receptors on surrounding protected areas (Richtersveld National Park);
- Motorists (including tourists) using the R382.

7.1.3.1 Residents and visual receptors in Port Nolloth

Residents are highly sensitive to changes in their views brought about by developments, particularly if they currently have sea views which may be affected or obscured by the proposed lighthouse.

7.1.3.2 Residents and viewpoints on surrounding farms

Residents and viewpoints on surrounding farms are normally classified as highly sensitive to changes brought about by a development such as a lighthouse, but much of the surrounding farm land either belongs to diamond mining concerns or the government. These visual receptors are therefore seen as of moderate sensitivity to the proposed development.

7.1.3.3 Visual receptors in Richtersveld National Park

Visitors and viewpoints in the Richtersveld National Park are likely to be there in order to appreciate the beauty of the Richtersveld landscape and will normally be classified as exceptionally sensitive to man-made structures introduced into this landscape. However, the viewshed extends only a very small distance into the park in two areas and from here mining structures and landscape scars will be more prominent in the landscape than the lighthouse. A moderate sensitivity to the proposed development is expected.

7.1.3.4 Motorists

Motorists driving along the R382 are likely to include tourists visiting the region. It is likely that tourists will be sensitive to man-made features in the landscape, but as motorists their attention will be only briefly focussed on any specific landscape feature. A low to moderate sensitivity to the proposed development is expected.

7.1.4 Visual Exposure

Visual exposure	Visual exposure refers to the relative visibility of a project or feature in the landscape (Oberholzer, 2005). Exposure and visual impact tend to diminish exponentially with distance. The exposure is classified as follows: • *High exposure* – dominant or clearly noticeable; • *Moderate exposure* – recognisable to the viewer; • *Low exposure* – not particularly noticeable to the viewer

Visual exposure was calculated using visibility (i.e. how much of the facility will be visible) and distance from the proposed lighthouse site.

Map 10-3 shows that high and moderate visual exposure will be limited to Port Nolloth and its immediate surroundings (as well as offshore, particularly in the bay).

7.1.4.1 Residents of Port Nolloth

There are a number of residents who will potentially be highly exposed to the new lighthouse due to their close proximity to the proposed site (Map 10-5).

7.1.4.2 Visual receptors on surrounding farms

Visual receptors on surrounding farms are likely to experience only low exposure to the development due to their distance from the site or the fact that only small parts of the lighthouse will be visible. No farm buildings are likely to be affected by the development.

7.1.4.3 Visual receptors in the Richtersveld National Park

The park is more than 5 km from the proposed lighthouse site and visual receptors are likely to experience low visual exposure to it.

7.1.4.4 Motorists

Motorists driving on the R382 between Port Nolloth to Alexander Bay will be highly exposed to the new lighthouse for only about 300 m, while those using the R382 between Port Nolloth and Steinkopf will experience low visual exposure for short sections only (approximately 2 km in total).

7.1.5 Visual Intrusion

Visual intrusion	Visual intrusion indicates the level of compatibility or congruence of the project with the particular qualities of the area – its *sense of place*. This is related to the idea of context and maintaining the integrity of the landscape (Oberholzer, 2005). It can be ranked as follows: • *High* – results in a noticeable change or is discordant with the surroundings; • *Moderate* – partially fits into the surroundings, but is clearly noticeable; • *Low* – minimal change or blends in well with the surroundings.

Sense of place is defined by (Oberholzer, 2005) as: '*The unique quality or character of a place...[It] relates to uniqueness, distinctiveness or strong identity.*' It describes the distinct quality of an area that makes it memorable to the observer.

7.1.5.1 Residents of Port Nolloth

A new lighthouse is required and since residents are used to having a lighthouse in Port Nolloth it is likely that the visual intrusion will be low since it will blend in well with the surroundings. It is also the case that the new lighthouse will be more aesthetically pleasing than the existing lattice structure (Figure 7-1, Figure 7-2) in that it resembles more traditional lighthouse architecture. The proposed tower is higher and broader than the original structure and will be in a slightly different locality (35 m from the existing tower), which means that sea views of a small number of residents (particularly if they are highly exposed to the new development) will potentially be highly intruded on or obscured (while others who are currently affected by the existing lighthouse structure may now have improved views of the sea). It should also be noted that a different set of residents (although probably largely overlapping due to the small change in position of the lighthouse) may be affected by the new light at night from those affected by the current light and will have to adapt to this impact on their nightscape.

Figure 7-1 Existing lighthouse on the property across the road from the new, proposed site.

Figure 7-2 Existing lattice, aluminium lighthouse structure.

Figure 7-3 Concrete lighthouse at Jesser Point, Sodwana Bay, of similar dimensions to the proposed Port Nolloth lighthouse. (© Craig Nattrass)

7.1.5.2 Residents and viewpoints of surrounding farms

Visual intrusion for visual receptors on surrounding farms will be low since the existing lighthouse will be replaced by an aesthetically improved lighthouse. Lighthouses are common features of coast lines and are often tourist attractions.

7.1.5.3 Visual receptors in the Richtersveld National Park

These receptors are more than 5 km from the lighthouse site and are unlikely to notice the difference between the existing and new lighthouse.

7.1.5.4 Motorists

The proposed lighthouse is likely to be accepted as part of the coastal landscape by tourists and other motorists and visual intrusion will be low.

Table 2 Summary of visual impact criteria.

Criteria	*Impact*
Viewer Sensitivity	Residents of Port Nolloth – **Highly** sensitive, particularly if they currently have sea views which will be affected or obscured by the proposed lighthouse. Residents and viewpoints on surrounding farms – **Moderately** sensitive since they have an active interest in their surrounding landscape, but the landscape has been considerably altered by mining activity. Visual receptors in Richtersveld National Park – **Moderately** sensitive since the landscape between them and the development is highly transformed by mining activity. Motorists – **Low to moderate** sensitivity due to short exposure time and the fact that their focus on landscape is reduced. Tourists driving along the major roads will be more interested in the landscape.
Visibility of Development	**High** if offshore viewshed is taken into consideration; **moderate** onshore.
Visual Exposure	Residents of Port Nolloth – a number of residents will potentially be **highly** exposed to the proposed lighthouse due to their proximity to the proposed site. Residents and viewpoints on surrounding farms – **Low** visual exposure due to distances involved. Visual receptors in Richtersveld National Park – **Low** visual exposure due to distance of park from development site. Motorists – **high** visual exposure for short sections of the R382 north of Port Nolloth.
Visual Intrusion	Residents of Port Nolloth – generally **low** intrusion on views since residents are used to a lighthouse in town. A few sea views (unaffected by the existing lighthouse) may be highly intruded on or even obscured by the lighthouse, while a some sea views may be improved by removal of the existing lighthouse. Residents and viewpoints on surrounding farms – **Low** visual intrusion since lighthouses are common features of coastlines and the proposed lighthouse will fit into its surroundings. Visual receptors in Richtersveld National Park – **Low** visual intrusion since lighthouses are common features of coastlines and the proposed lighthouse will fit into its surroundings. Motorists – **Low** visual intrusion since lighthouses are common features of coastlines and the proposed lighthouse will fit into its surroundings..

7.2 SIGNIFICANCE OF VISUAL IMPACT ON VIEWERS

Visual impacts	Changes to the visual character of available views resulting from the development that include: obstruction of existing views; removal of screening elements thereby exposing viewers to unsightly views; the introduction of new elements into the viewshed experienced by visual receptors and intrusion of foreign elements into the viewshed of landscape features thereby detracting from the visual amenity of the area

7.2.1 Impact 1: Intrusion of construction activity on sensitive viewers

Cause and Comment

Construction of the lighthouse will be very similar to that of large holiday houses in town except that it will be higher and exposed against the skyline for some viewers. Some construction equipment and vehicles will be required and possibly a crane to position the lantern house on top of the tower. Construction activity and workers will be noticed.

Figure 7-4 Example of a lighthouse (Centennial Lighthouse) under construction. (© K. Latham)

Mitigation Measures

- Project developers should demarcate construction boundaries and minimise areas of surface disturbance.
- The contractor should maintain good housekeeping on site to avoid litter and minimise waste.
- Night lighting of the construction sites should be minimised within requirements of safety and efficiency. See section on lighting for more specific measures.
- Dust generation should be minimised as much as possible as this can also increase the visibility of the construction phase significantly.

Significance Statement

The duration of the impact is *short term* (while construction lasts – less than 12 months). The spatial extent is *local* since it is unlikely that construction activity will be noticed more than 2 km from the site. The intensity of the visual impact will be *high* since there are a number of highly sensitive viewers that will be affected. The likelihood of the impact occurring is *definite* due to the number of viewers who will be affected, and its status is *negative*. The significance of the impact is **medium** due to the high intensity. Mitigation measures will contain the impact and can reduce it to **low** by lowering the intensity.

Table 3 Significance of construction activities on sensitive viewers

Impact description	Status	Extent	Duration	Reversibility	Irreplaceability	Intensity/ Magnitude	Probability	Significance (without mitigation)	Mitigation	Significance (with mitigation)	Confidence level
Intrusion of construction activity on sensitive viewers	Negative	Local – construction activity is a common element of coastal villages and it is unlikely to be noticed beyond 2 km.	Short term – less than 12 months.	High	Low – construction is a temporary visual impact.	High – a number of highly sensitive visual receptors will be affected.	Definite	Medium	Minimise intensity of visual impact by keeping a tidy construction site, minimal lighting of the site at night.	Low	High – construction activity is a well known and understood visual impact.

7.2.2 Impact 2: Intrusion of a concrete lighthouse on views of sensitive visual receptors.

Cause and Comment

The proposed lighthouse is tall compared to other buildings in the area and will be a prominent structure in the townscape of Port Nolloth. The existing lighthouse will be removed, potentially altering one set of views, while a new lighthouse will alter a different, if overlapping, set of views. Sea views of a small number of residents may be highly impacted by the proposed lighthouse and the removal of the existing lighthouse.

The proposed lighthouse will also have an effect on the nightscape of the region although residents will mostly be used to this effect due to the existing lighthouse.

Mitigation Measures

- Maintenance of the lighthouse exterior is important to ensure a positive visual impact.

Significance Statement

The duration for the impact is *permanent* since the existing lighthouse was established in 1979 and the port/harbour requires a lighthouse. The spatial extent of the impact is *local* since high visual exposure is likely to be limited to an area less than 2.5 km from the lighthouse. The intensity of the impact is deemed *moderate* since there are very few highly sensitive visual receptors with high visual intrusion ratings. Visual intrusion will generally be low since the development is in a sense the replacement/upgrade of an existing lighthouse. The impact will *definitely* occur (probability) since there are a number of highly sensitive viewers who will be affected. The significance of the visual impact is therefore **medium** (due to its moderate intensity) before and after mitigation. The status is mostly positive since the new lighthouse is an improvement on the existing one, but some residents may experience it as negative since their sea views may be negatively affected (although, as mentioned earlier, others may experience an improvement in their sea views due to the removal of the existing lighthouse). A *neutral* overall impact status is therefore most likely.

Reversibility is *high* since the structure can be completely removed from view – it will be built on a property that is already developed. Irreplaceability of visual resources is *moderate* since some viewers may have their sea views altered, but for most sensitive visual receptors the intrusion will be low.

Table 4 Significance of the visual impact of the proposed lighthouse on sensitive viewers

Impact description	Status	Extent	Duration	Reversibility	Irreplaceability	Intensity/ Magnitude	Probability	Significance (without mitigation)	Mitigation	Significance (with mitigation)	Confidence level
Intrusion of a lighthouse on views of sensitive visual receptors	Neutral	Local – high visual exposure and intrusion is limited to within 2.5 km of the site.	Permanent	High since the structure can be completely removed from view.	Moderate since some viewers may have their sea views altered, but for most sensitive visual receptors the intrusion will be low.	Moderate since there are a small number of highly sensitive visual receptors that may be highly affected.	Definite	Medium since it some highly sensitive visual receptors will be negatively impacted while others positively. In general the sense of place of Port Nolloth is likely to be improved by a new lighthouse	Maintenance of lighthouse exterior.	Medium	High

8 CONCLUSIONS AND RECOMMENDATIONS

The proposed lighthouse is in essence an upgrade of the existing lighthouse which is required for safe passage of boats to the nearby port. It will resemble traditional lighthouses more than the existing lattice structure does, although it will be larger and higher. The location of the new lighthouse will be approximately 35 m closer to the sea on a property adjacent to the beach. This means that some residents' sea views will be altered; some will potentially be improved when the existing structure is removed while others will be intruded on by the new lighthouse. For most residents only a partial change in their views will occur.

The existing lighthouse, and the fact that lighthouses are expected features of a coastline, means that the overall visual intrusion will be low. Maintenance of the lighthouse exterior will ensure a positive visual impact for most visual receptors in the region.

9 REFERENCES

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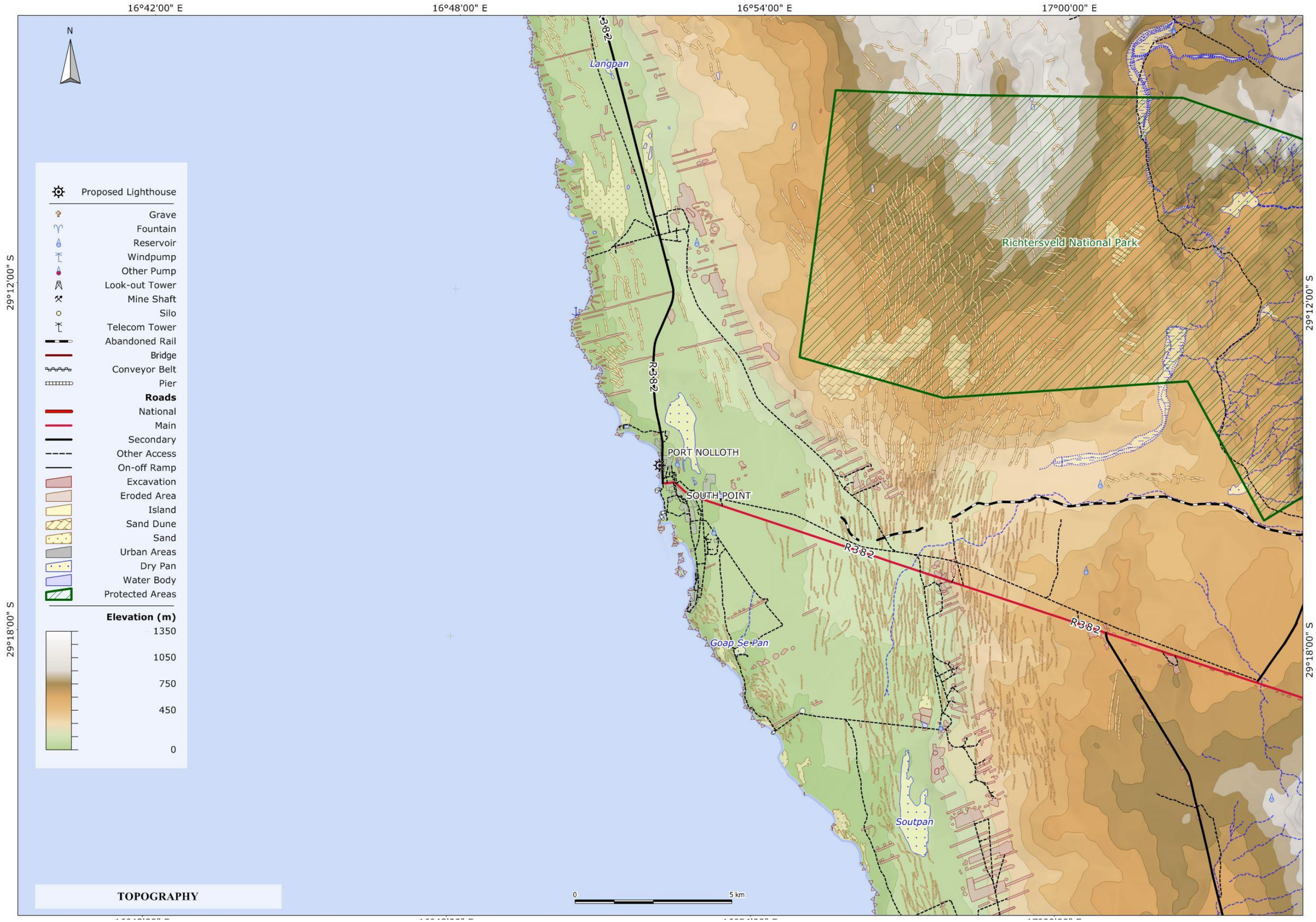
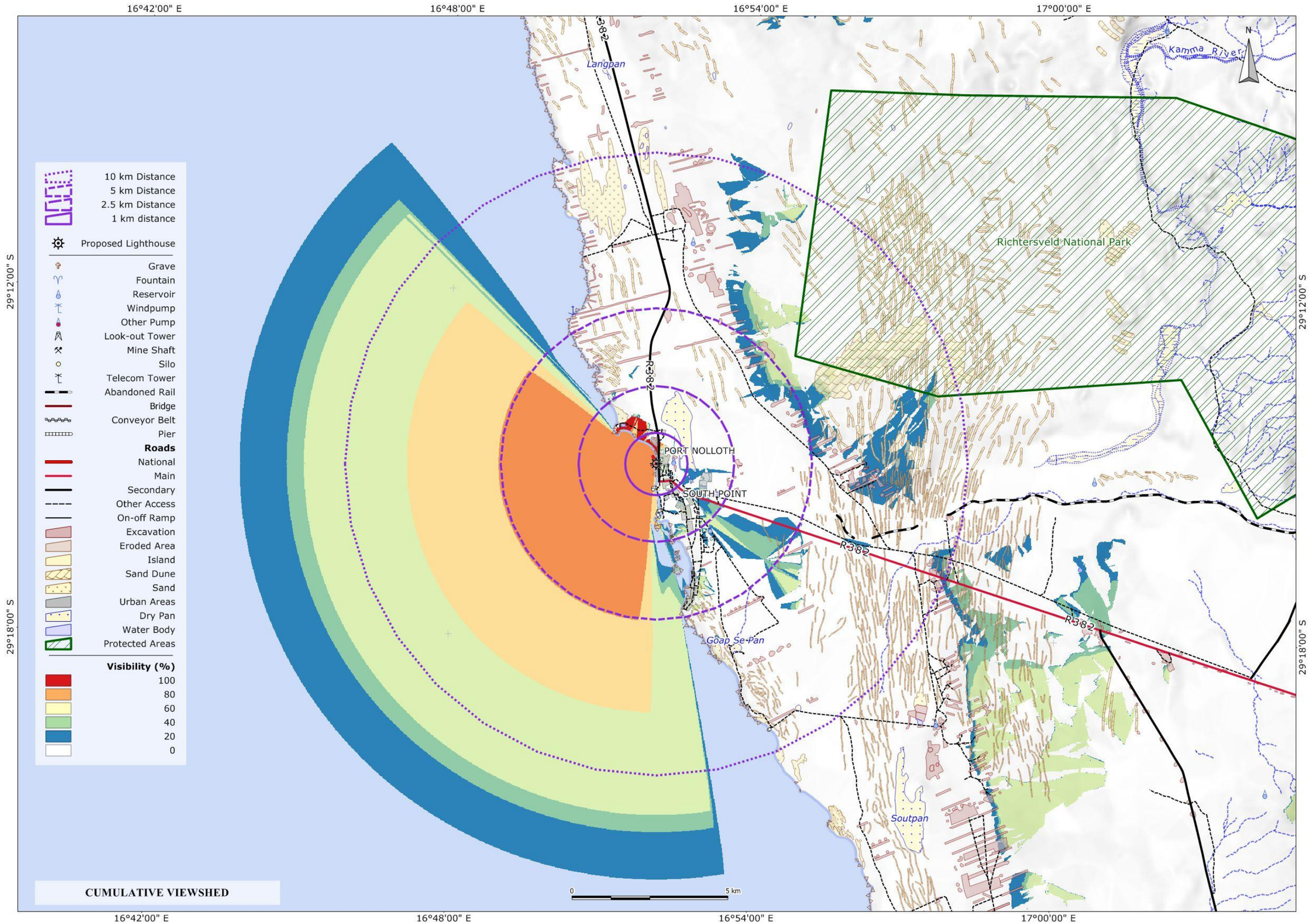
Oberholzer, B., 2005. *Guideline for involving visual & aesthetic specialists in EIA processes*, Cape Town: CSIR, Provincial Government of the Western Cape, Department of Environmental Affairs & Development. Available at: http://www.capegateway.gov.za/Text/2005/10/5_deadp_visual_guideline_june05.pdf.

De la Rey, A., 2008. Enabling decision making with the SPOT 5 Building Count. *PositionIT*, (July/August 2008), pp.33–38.

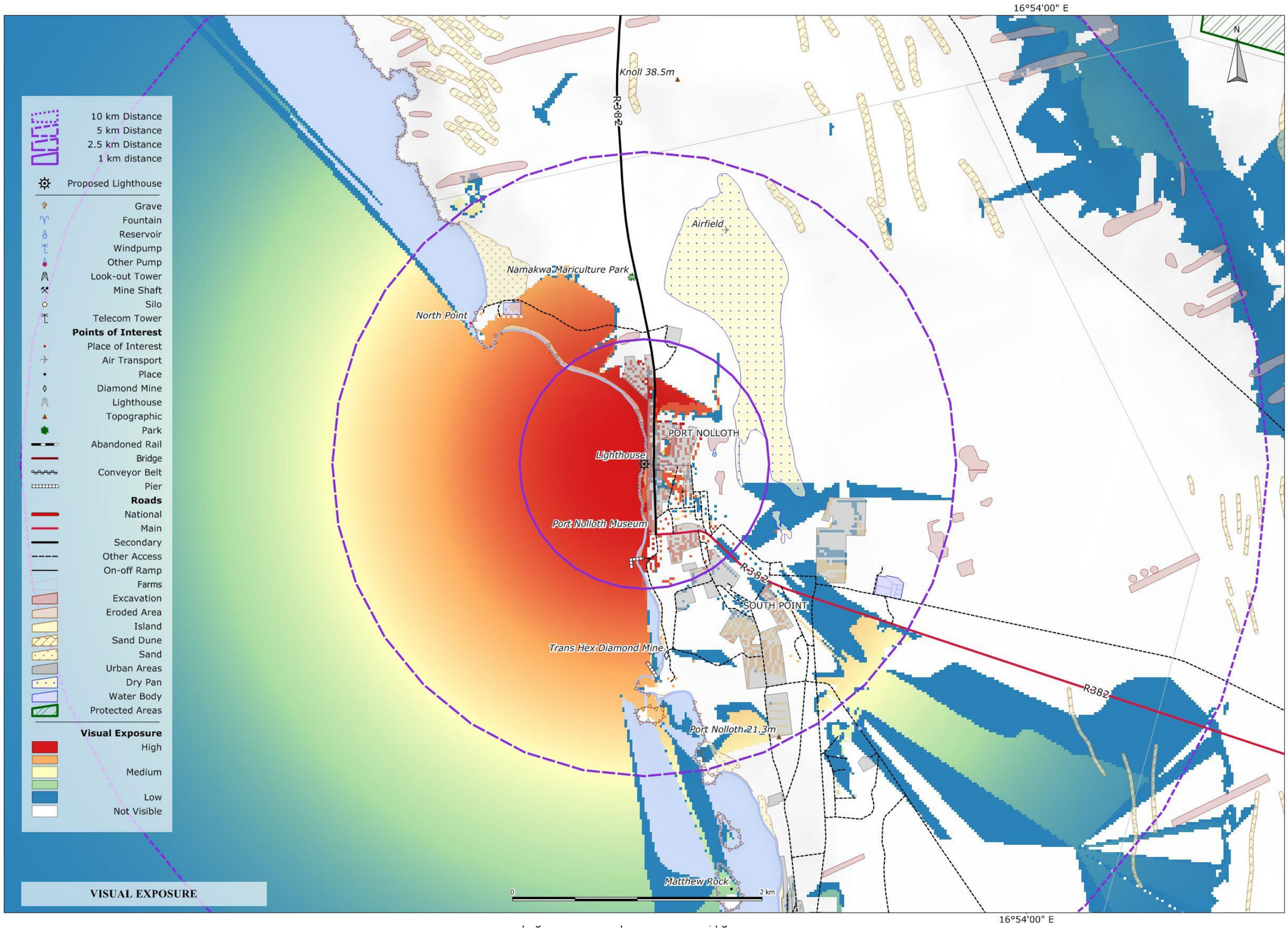
10 MAPS



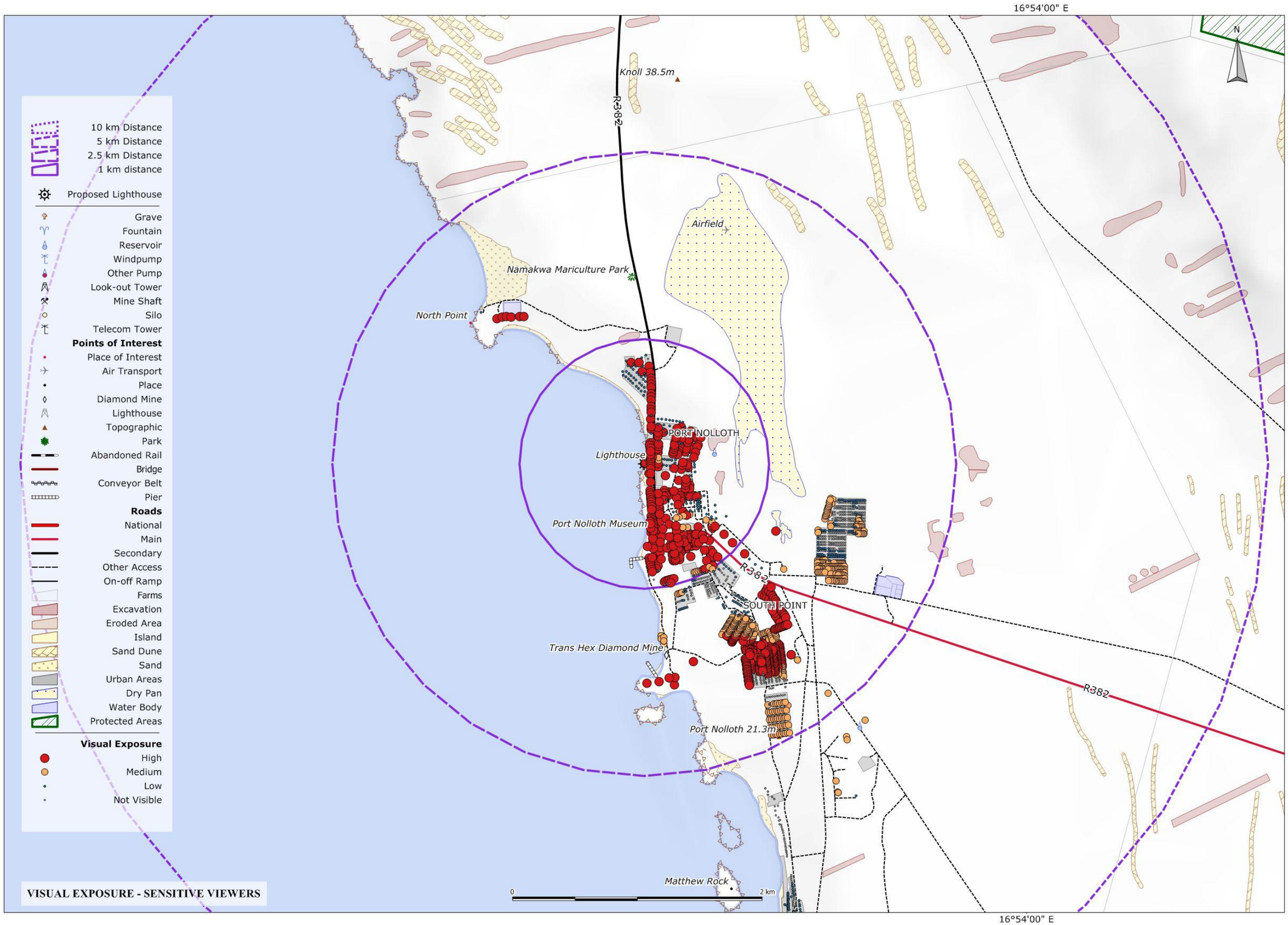
Map 10-1 Topography of the region surrounding the proposed lighthouse and Port Nolloth.



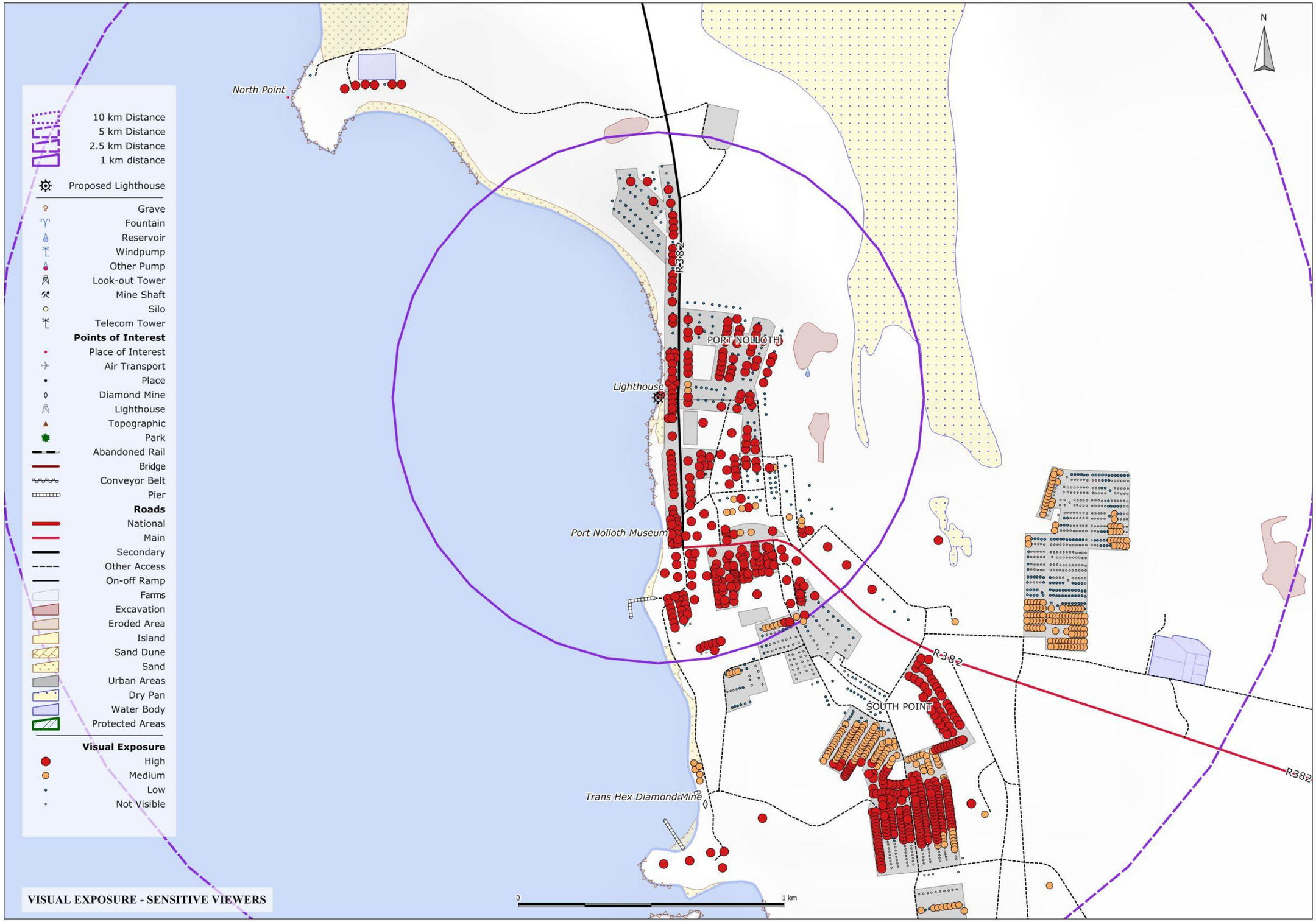
Map 10-2 Cumulative viewshed showing areas from where the proposed lighthouse will be visible as well as what percentage of the lighthouse will be visible from them.



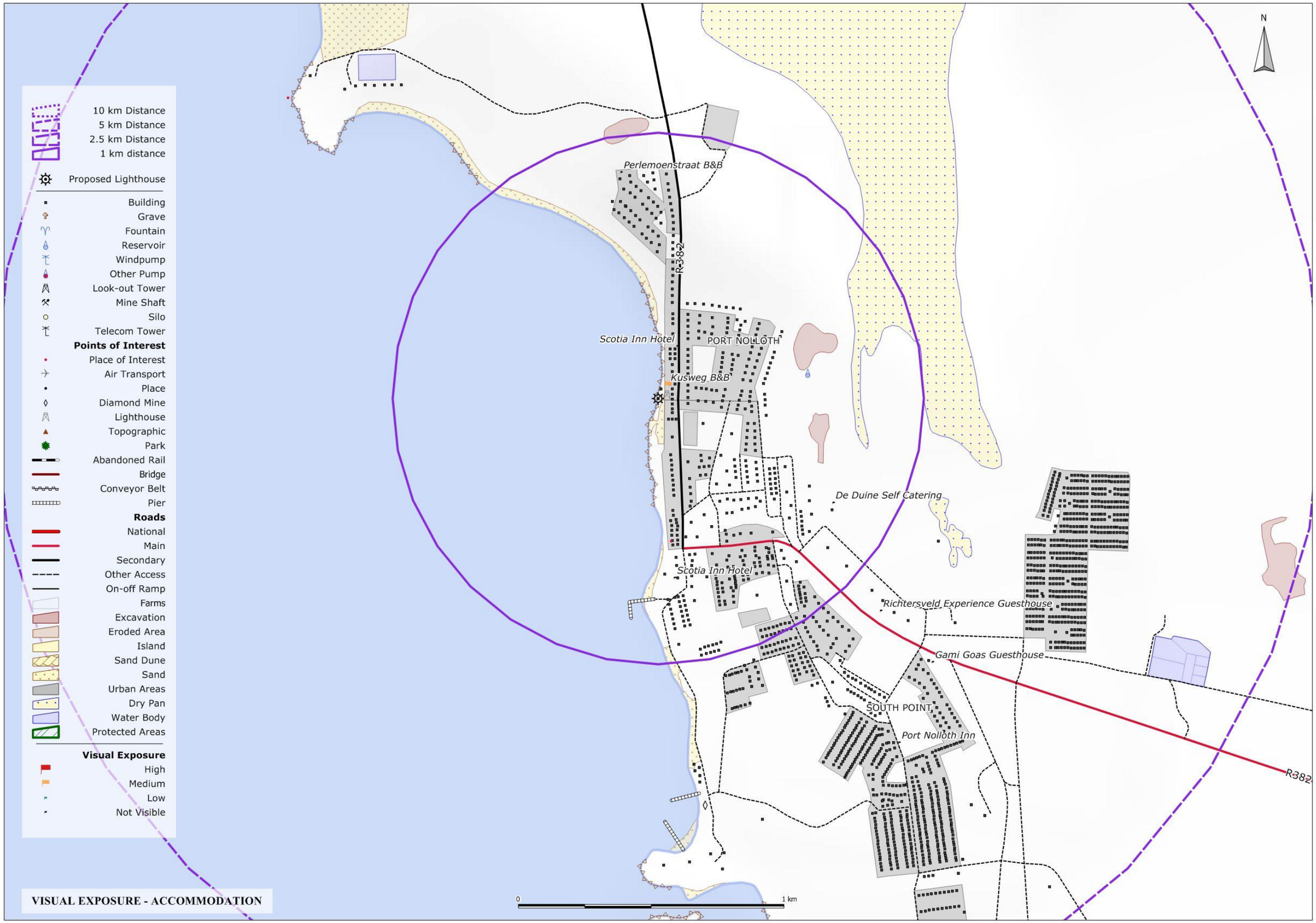
Map 10-3 Visual exposure, a combination of visibility of, and distance from, the proposed lighthouse.



Map 10-4 Buildings potentially affected by the proposed lighthouse. Buildings are used as a proxy for residents (sensitive visual receptors).



Map 10-5 Visual exposure of sensitive visual receptors in Port Nolloth.



Map 10-6 Visual exposure of guest houses, hotels and bed & breakfasts in Port Nolloth.

APPENDIX E: Public Participation

Appendix E.1 Proof of Placement of Newspaper Advertisements and Site Notice Boards

[31 Augustus 2012] **[DIE PLATTELANDER]** **[11]**

Gemeenskappe in opstand teen munisipaliteit

Munisipaliteit plaas vertroue in media

Arthur B. Cloete - Concordia

Die afgelope week het die gemeenskappe van Namakwaland hul ongelukkigheid met die plaaslike owerheid te kenne gegee deur protes-optredes in die dorpe Concordia en Okiep te hou. Op Vrydag 24 Augustus 2012 het lede van die gemeenskap van Okiep reeds met hul protes aksies begin en het die skare motorbande gepak in die hoofstraat voor die Dienspunt en die pad versper. Op Maandag 27 Augustus 2012 het van die gemeenskaps lede van Concordia ook in Goodhouse weg voor die Nama-Khoi kantore byeen gekom om hul griewe te lig. In beide gevalle was die Dienspunte gesluit, op aandrang van die wat deelgeneem het aan die protes aksies.

Foto: Okiep gemeenskap ontstoke in die strate.

Volgens die verskeie gemeenskappe is die hoofrede vir die optredes, die nuwe heffings op munisipale rekeninge vir elektrisiteit voorsiening wat R106,00 beloop. In die bedrag is ingesluit 'n heffing van R8 vir instandhoudingskostes en 'n basiese heffing van R98. Die gemeenskappe het dan ook tydens beide gevalle, hul misnoeë aangaande `swak dienslewering oor die algemeen, die toepassing van subsidies, die groot Munisipale skuldlas op die water en krag rekenings, aanstellings by die munisipaliteit en die afwesigheid van gereelde inligting sessies en kommunikasie vanaf die munisipale bestuur `, bekend gemaak.

In Okiep het een van die ontstoke inwoners gekla dat hulle versoeke vir algemene vergaderings met die munisipaliteit telke male uitgestel is, en later afgestel is, een uur voor 'n vergadering wat geskeduleer was vir Donderdag 23 Augustus. In Concordia het die leier van die protes optrede, Mnr. Hendrik Apollos, gesê dat hulle bereid is om vir so lank as wat nodig is voort te gaan met die protes aksie indien hulle nie bevredigende antwoorde ontvang nie.

Op Woensdag 29 Augustus het die Munisipale Bestuurder, Mnr. Aubrey Baartman, egter 'n media konferensie by die Nama-Khoi kantore te Springbok gehou om gemeenskappe se vrae te probeer beantwoord. Hier het hy bevestig dat gemeenskap vergaderings om die nuwe heffings te bespreek gestaak is om konflik situasies te vermy, en dat daar besluit is om die heffings aan gemeenskappe te verduidelik deur van die media gebruik te maak.

Hy het verduidelik dat die basiese heffing van R98 twee boekjare gelede deur die National Energy Regulator oftewel NERSA, afgeteken is, en dus deur die Munisipaliteit toegepas moet word. Hy het genoem dat die aangepaste tariewe ook in ander Munisipaliteite in die Noordkaap gehef word. Oor die toepassings van subsidies het hy inwoners aangemoedig om die Munisipaliteit te nader en seker te maak dat hul aansoek vorms korrek ingevul is om in aanmerking te kom vir die subsidies.

Hy het ook genoem dat die ontbreking van effektiewe kommunikasie, deur die Munisipaliteit, met die inwoners van Nama-Khoi 'n kwelpunt is, maar dat die munisipaiteit deurlopend daaraan werk en verbeter. Die onderhoud met die media was beslis `n stap in die regte rigting.

NOTICE OF BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

Proposed Port Nolloth Lighthouse – near Port Nolloth, Northern Cape

DEA reference number – 14/12/16/3/3/1/671
NEAS reference number – DEA/EIA/0001379/2012

Project Name: Port Nolloth Lighthouse Project
Applicant: Transnet Freight Rail (RME), a division of Transnet SOC Ltd.
Location: ERF 335 in the Richtersveld municipal area

The project applicant, Transnet Freight Rail (RME), is proposing to construct a new lighthouse near Port Nolloth, Northern Cape.

In terms of GN R 544, 545 and 546 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) published in Government Gazette 33306 on 18 June 2010, the need for a Basic Assessment is triggered by the inclusion of activities listed in GN R 544: Activity 18 (iv); GN R 546: Activity 16 (iii), (iv) iii (cc)

CSIR has been appointed by the project applicant as the independent Environmental Assessment Practitioner to manage the abovementioned Basic Assessment and public consultation process.

You are hereby invited to register as an Interested and/or Affected Party (I&AP) and to provide any written comments on the project. Please refer to the DEA reference number above when providing comments or requesting information, together with your full name, contact details and preferred method of notification within 30 days from the date of this notice.

For more information, please contact:

Kavandren Moodley, Email: KMoodley1@csir.co.za
CSIR, P O Box 17001, Durban, 4013; Tel: 031 242 2385; Fax: 031 261 2509.
Website: http://www.csir.co.za/eia/Port Nolloth Lighthouse.html

KENNISGEWING VAN BASIESE BESTEKSTUDIE EN OPENBARE DEELNAME PROSES

Voorgestelde Port Nolloth Lighuis – naby Port Nolloth, Noord-Kaap

DEA verwysingsnommer – 14/12/16/3/3/1/671
NEAS verwysingsnommer – DEA/EIA/0001379/2012

Projek Naam: Port Nolloth Lighuis Projek
Aansoeker: Transnet Freight Rail (RME), 'n afdeling van Transnet SOC Ltd.
Ligging: ERF 335 in die Richtersveld munisipale area

Die projek aansoeker, Transnet Freight Rail (RME), stel die oprigting van 'n nuwe lighuis naby Port Nolloth, Noord-Kaap, voor.

In terme van GN R 544, 545 en 546 gepromulgeer onder Hoofstuk 5 van die Nasionale Omgewingsbestuurswet (Wet 107 van 1998) gepubliseer in Staatskoerant 33306 op 18 Junie 2010, word die behoefte vir 'n Basiese Bestekstudie veroorsaak deur die insluiting van aktiwiteite gelys in GN R 544: Aktiwiteit 18 (iv); GN R 546: Aktiwiteit 16 (iii), (iv) iii (cc)

Die WNNR is aangestel deur die projek aansoeker as onafhanklike Omgewingspraktisyn om bogenoemde Basiese Bestekstudie, asook die openbare deelname proses, te bestuur.

U word hiermee uitgenooi om te registreer as 'n Belanghebbende en of Geaffekteerde Party (B&GP) asook geskrewe kommentaar aangaande die projek te verskaf. Verwys asseblief na die DEA verwysingsnommer hierbo wanneer u kommentaar lewer of meer inligting wil hê, tesame met u volle naam, kontakbesonderhede en watter metode van kennisgewing / korrespondensie u verkies binne 30 dae vanaf die datum van hierdie kennisgewing.

Vir meer inligting kontak asseblief:

Kavandren Moodley, E-pos: KMoodley1@csir.co.za
CSIR, Posbus 17001, Durban, 4013; Tel: 031 242 2385; Faks: 031 261 2509.
Webwerf: http://www.csir.co.za/eia/Port Nolloth Lighthouse.html

Proof of site notice boards placed on site on ERF 335 in Port Nolloth, 3 October 2012

Appendix E.2 Proof of correspondence sent to I&APs and Organs of State prior to the Release of the Draft BAR

Letter 1: Notification of the Basic Assessment Process (English)

CSIR Consulting and Analytical Services
PO Box 17001
Durban
4013 South Africa
Tel: +27 31 242 2385
Fax: +27 31 261 2509
E-mail: KMoodley1@csir.co.za

28 August 2012

<<Title>> <<First_Name>> <<Surname>>
<<Company_Organisation>>
<<Address_1>>
<<Address_2>>
<<Address_3>>
<<Address_4>>
<<City>>
<<Code>>

Dear <<Title>> <<Surname>>

PROPOSED PORT NOLLOTH LIGHTHOUSE PROJECT – NEAR PORT NOLLOTH, NORTHERN CAPE.

DEA REFERENCE NUMBER – 14/12/16/3/3/1/671

NEAS REFERENCE NUMBER – DEA/EIA/0001379/2012

Transnet Freight Rail (RME), a division of Transnet SOC Ltd., proposes to construct and operate the Port Nolloth Lighthouse on ERF 335 near the town of Port Nolloth in the Richtersveld Municipal area, situated within the Northern Cape Province. As part of the construction, an existing aluminium lattice lighthouse structure on the adjacent land parcel (ERF 44) will be demolished as it has reached the end of its lifespan.

In terms of GN R 544, 545 and 546 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) published in Government Gazette 33306 on 18 June 2010, the need for a Basic Assessment process is triggered by the inclusion of activities listed in GN R 544: Activity 18(iv); and GN R 546: Activity 16(iii), (iv), iii: (cc). The applicant has appointed the CSIR as the independent Environmental Assessment Practitioner (EAP) to manage the Basic Assessment and public consultation processes.

In line with the current EIA requirements, interested and affected parties are to request, in writing, that their names be placed on the I&AP register. In order to ensure that you are placed on the project register as well as to raise issues and/or concerns for inclusion in the Draft Basic Assessment Report, you are kindly requested to submit any comments you may have to the participation consultant at the address details indicated above, within 30 days from the date of this letter (before 01 October 2012). Please refer to the DEA reference number above when providing any comments or requests for information, together with your full name, contact details (preferred method of notification, e.g., full postal or email address, fax/phone number(s) and an indication of any direct business, financial, personal or other interest you have in the application.

Please find enclosed with this letter a Background Information Document (BID) on the proposed activity as well as a response form. This document will also be available at the Richtersveld public library, from CSIR on request, or on the project website at http://www.csir.co.za/eia/Port Nolloth Lighthouse.html

Yours sincerely

Kavandren Moodley
Environmental Consultant

Letter 1: Notification of the Basic Assessment Process (Afrikaans)

CSIR Consulting and Analytical Services
PO Box 17001
Durban
4013 South Africa
Tel: +27 31 242 2385
Fax: +27 31 261 2509
E-mail: KMoodley1@csir.co.za

28 Augustus 2012

<<Title>> <<First_Name>> <<Surname>>

<<Company_Organisation>>

<<Address_1>>

<<Address_2>>

<<Address_3>>

<<Address_4>>

<<City>>

<<Code>>

Dear <<Title>> <<Surname>>

VOORGESTELDE PORT NOLLOTH LIGHUIS PROJEK – NABY PORT NOLLOTH, NOORD-KAAP.

DEA VERWYSINGSNOMMER – 14/12/16/3/3/1/671

NEAS VERWYSINGSNOMMER – DEA/EIA/0001379/2012

Transnet Freight Rail (RME), 'n afdeling van Transnet SOC Bpk., beoog die konstruksie en in werking stelling van die Port Nolloth Lighuis op ERF 335 naby die dorp Port Nolloth in die Richtersveld Munisipale gebied, geleë binne die Noord-Kaap Provinsie. As deel van die konstruksie sal 'n bestaande aluminium skelet lighuis struktuur op die aangrensende stuk grond (ERF 44) gesloop word, aangesien dit die einde bereik het van sy lewensduur.

In terme van GN R 544, 545 en 546 gepromulgeer onder Hoofstuk 5 van die Nasionale Omgewingsbestuurswet (Wet 107 van 1998) gepubliseer in Staatskoerant 33306 op 18 Junie 2010, word die behoefte vir 'n Basiese Bestekstudie veroorsaak deur die insluiting van aktiwiteite gelys in GN R 544: Aktiwiteit 18(iv); en GN R 546: Aktiwiteit 16(iii), (iv), iii: (cc). Die applikant het die WNNR aangestel as die onafhanklike Omgewingsbestek Praktisyn (OBP) om die Basiese Bestekstudie te bestuur, asook die openbare deelname prosesse.

In lyn met die huidige Omgewingsimpak Studie vereistes moet belanghebbende en geaffekteerde partye skriftelik versoek dat hul name op die B&GP register geplaas word. Om te verseker dat u op die projek register geplaas word, asook om knelpunte en/of bekommernisse uit te lig vir insluiting in die Konsep Bestekstudie Verslag, word u vriendelik versoek om enige kommentaar wat u mag hê te stuur aan die openbare deelname konsultant by die adres besonderhede soos aangedui hierbo, binne 30 dae vanaf die datum van hierdie brief (voor 01 Oktober 2012). Verwys asseblief na die DEA verwysingsnommer hierbo wanneer u enige kommentaar of versoeke vir meer inligting stuur, tesame met u volle naam, kontakbesonderhede (verkose metode van kennisgewing, bv., volle posadres of e-pos adres, faks/telefoonnommer(s) en 'n aanduiding van enige direkte besigheid, finansieële, persoonlike of ander belang wat u by die aansoek mag hê.

Ingesluit by hierdie brief sal u die Agtergrond Inligting Dokument (AID) vind rakende die voorgestelde aktiwiteit, sowel as 'n kommentaar vorm. Hierdie dokument sal ook beskikbaar wees by die Richtersveld openbare biblioteek, vanaf die WNNR op versoek, of op die projek webwerf by http://www.csir.co.za/eia/Port Nolloth Lighthouse.html

Vriendelike groete

Kavandren Moodley
Omgewingskonsultant

Copy of the Comment Form sent with Letter 1 (English)

BASIC ASSESSMENT FOR THE PROPOSED PORT NOLLOTH LIGHTHOUSE PROJECT – PORT NOLLOTH, NORTHERN CAPE
DEA Reference No: 14/12/16/3/3/1/671
NEAS Reference No: DEA/EIA/0001379/2012

REGISTRATION AND COMMENTS FORM

28 August 2012

Name:	Telephone:
Organisation:	Fax:
Designation:	Email:
Physical address:	Postal address:

Please indicate if you want to register as an Interested and Affected Party. Registration is required in order to receive further correspondence during the BA process		
YES		**NO**
Please indicate if you have any interest (business, financial, personal or other) in the application for environmental authorisation:		

Please describe any issues or concerns you think should be considered during the Basic Assessment process

Please provide details of any other individuals or organisations that should be involved:

Please submit this ***Registration & Comments Form*** to:

Kavandren Moodley
CSIR
P O Box 17001,
Durban, 4013
Tel: 031 242 2385
Fax: 031 261 2509
E-mail: KMoodley1@csir.co.za
Website: www.csir.co.za/eia/Port Nolloth Lighthouse.html

Copy of the Response Form sent with Letter 1 (Afrikaans)

BASIESE BESTEKSTUDIE VIR DIE VOORGESTELDE PORT NOLLOTH LIGHUIS PROJEK – PORT NOLLOTH, NOORD-KAAP
DEA Verwysings Nommer: 14/12/16/3/3/1/671
NEAS Verwysings Nommer: DEA/EIA/0001379/2012

REGISTRASIE EN KOMMENTAAR VORM

28 Augustus 2012

Naam:	Telefoon:
Organisasie:	Faks:
Benoeming:	E-pos:
Fisiese / Woon adres:	Posadres:

Dui asseblief aan of u wil registreer as 'n Belanghebbende en Geaffekteerde Party. Registrasie is 'n vereiste vir verdere kommunikasie en ontvangs van inligting tydens die Basiese Bestekstudie proses		
JA		**NEE**
Dui asseblief aan of u enige belang (besigheid, finansieël, persoonlik of ander) het by die aansoek om omgewingsmagtiging:		

Beskryf asseblief enige knelpunte of bekommernisse wat u dink oorweeg moet word gedurende die Basiese Bestekstudie proses

Verskaf asseblief besonderhede van enige ander individue of organisasies wat betrek moet word:

Stuur asseblief hierdie ***Registrasie & Kommentaar Vorm*** aan:

Kavandren Moodley
CSIR
Posbus 17001,
Durban, 4013
Tel: 031 242 2385
Faks: 031 261 2509
E-pos: KMoodley1@csir.co.za
Webwerf: www.csir.co.za/eia/Port Nolloth Lighthouse.html

Copy of the Background Information Document sent with Letter 1

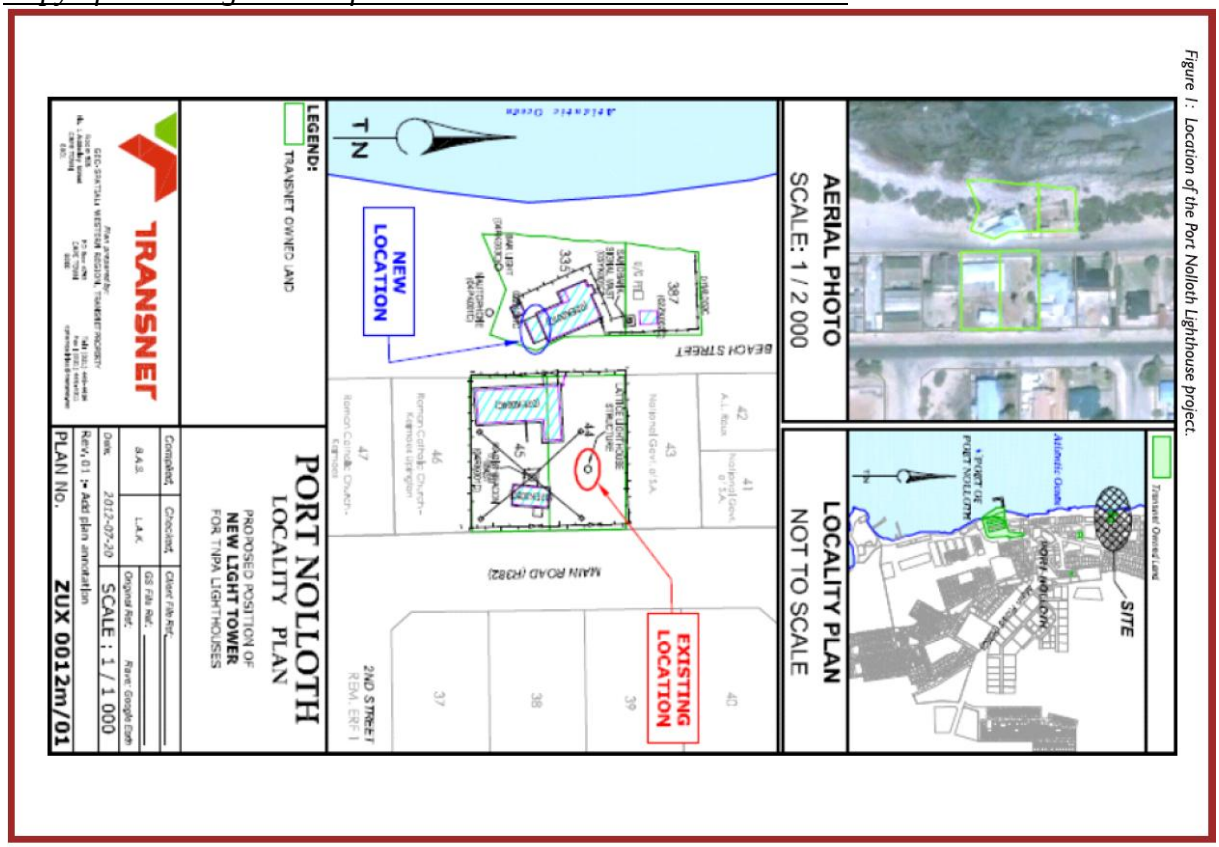


Figure 1: Location of the Port Nolloth Lighthouse project.

INTRODUCTION TO THE PROPOSED PROJECT

Transnet Freight Rail (RME), a division of Transnet Ltd., proposes to construct and operate a Lighthouse on ERF 335 in Port Nolloth which is located within the Richtersveld Municipal area, in the Northern Cape Province. As part of the new lighthouse construction, an existing aluminium lattice lighthouse structure on an adjacent land parcel (ERF 44) will be demolished as it has reached the end of its lifespan.

The new lighthouse will be constructed on Transnet owned land with a total area of approximately 792m² available for the proposed project, of which a maximum of 36m² will undergo physical alteration for the construction of the lighthouse tower. The new tower will be constructed adjacent to existing staff quarters. An existing lean-to structure built against the gable wall of the staff quarters will be demolished to accommodate the new lighthouse.

Transnet Freight Rail (RME) is one of five operating divisions within Transnet and specialises in the transportation of freight. The company maintains an extensive rail network across South Africa which connects with other rail networks in the sub-Saharan region, with rail infrastructure representing approximately 80% of Africa's total rail network.

CSIR has been appointed by Transnet Freight Rail (RME) to undertake a Basic Assessment (BA) process for the proposed project.

AIM OF THE DOCUMENT

This Background Information Document (BID) provides identified Interested and Affected Parties (I&APs) with:

- Information on the proposed project;
- A description of the environmental assessment process; and
- Details on how to register your interest in the project and receive further information.

As a registered I&AP, there will be opportunities for you to be involved in this environmental assessment process through receiving information, contributing issues and commenting on draft reports. The input from I&APs, together with the information and assessment provided by the Environmental Assessment Practitioner (CSIR), will assist the responsible authority, in this instance the national Department of Environmental Affairs (DEA), with their decision-making process.

PROJECT LOCATION

As indicated above, the proposed project will be located on ERF 335 near the town of Port Nolloth in Northern Cape and is illustrated graphically in Figure 1 below.

NEED AND JUSTIFICATION FOR THE PROJECT

The existing aluminium lattice lighthouse structure adjacent to the proposed lighthouse location (Figure 1), has now come to the end of its lifespan and needs to be replaced. The proposed new concrete lighthouse structure will be longer lasting and will more importantly serve as a better day-marker for mariners. This is especially important in assisting mariners to find the port safely.

BRIEF PROJECT DESCRIPTION

The key components of the proposed project are described below:

- **Concrete tower:** The new lighthouse structure will comprise a concrete tower with an internal diameter of approximately 4 m and a height of approximately 11 m. This tower will be capped with a concrete slab approximately 7 m in diameter which will in turn support the lantern house.
- **Lantern house:** The lantern house structure will be of glass fibre construction and will be approximately 2.8 m in diameter and 2.7 m high. Access to the lantern house will be via an external door at ground level, an internal metal cat ladder and a trap door through the top slab leading into the lantern house structure. The lantern house will comprise a VRB 25 beacon. The VRB 25 beacon is a rotating beacon with a range between 15 to 22 nautical miles. It has 6 or 8 equally spaced Fresnel lenses rotating around a stationary lamp of up to 100 watts, generating 6 to 8 discrete pencil beams which will be blanked off toward the land side of the lantern house.
- **Staff quarters:** The new lighthouse will be constructed adjacent to existing staff quarters on site. These staff quarters will serve lighthouse staff during the operation and maintenance periods. An existing lean-to attached to the present staff quarters will also be demolished to accommodate the new lighthouse. This structure is approximately 6340 X 350 mm in size and comprises plastered brick walls, a concrete slab floor, a corrugated asbestos cement single pitch roof, a double door and two windows.
- **Connection to engine room:** The proposed lighthouse will be connected to an existing engine room located on ERF 45 adjacent to the proposed lighthouse site. Connection will be via a 220 V underground cable which will supply power to the new lighthouse. There are no planned upgrades for this engine room as part of the new lighthouse construction.

ENVIRONMENTAL LEGISLATION –SUMMARY OF THE BASIC ASSESSMENT PROCESS

In terms of the National Environmental Management Act (Act No 107 of 1998), as amended (NEMA), and the 2010 EIA regulations published in Government Notice R543, 544, 545 and 546 on the 18 June 2010 Government Gazette 33306 (as amended), notice is hereby given that a Basic Assessment process is required as the project includes, amongst others, the following listed activities in GN 544 and 546. Table 1 below indicates the applicable listed activities together with a summary of the listed activity in the context of the proposed project activities.

Table 1: Listed Activities

Relevant notice:	Activity No (s) (in terms of the relevant notice)	Description of planned activity that relates to the applicable listed activity
GN.R544, 18 June 2010	18 (iv),	The construction process for the lighthouse might require the infilling or depositing of material more than 5 cubic metres, as well as excavations at a distance of 100 m inland of the high-water mark of the sea.
GN.R546, 18 June 2010	16 (iii), (iv), iii: (cc),	The final layout might result in buildings and infrastructure with a footprint of 10 square metres each, encroaching within 32 metres of a watercourse.

Note: A precautionary approach has been followed in completing the above Table of Listed Activities, in that if there is any doubt at this stage of the project planning whether or not an activity is included in the project design, then the activity is listed. This list may be refined during the course of the BA and listed triggers may be removed or added as applicable.

These listed activities require authorisation from the National Department of Environmental Affairs (DEA). The Basic Assessment needs to show the responsible authority, DEA, and the project proponent what the consequences of their choices will be in biophysical, social and economic terms.

The Basic Assessment including Public Participation process being implemented for this project is summarised into the following steps below:

Step 1: Notify Authorities and I&APs (30 days)

The first stage in the process entails notification to the DEA as well as interested and affected parties (I&APs) of the intention to proceed with the BAR. I&APs are required to register their interest on the project database within 30 days (in order to be included from the outset of the BA process) and raise issues of concern. I&APs can also register during the course of the BA process.

Step 2: Draft Basic Assessment for Public Comment (40 days)

The Basic assessment is undertaken in order to identify and assess potential environmental impacts, both positive and negative, that may be associated with the project activity. This includes mitigatory measures to reduce potential negative impacts and maximise positive benefits as well as the consideration of alternatives. The Basic Assessment will include an overview of the affected environment on which the activity is to take place.

The draft Basic Assessment, including comments received from all I&APs will be made available for a 40 day review period. Reasonable and feasible alternatives will also be included in the draft BAR.

All registered I&APs on the project database will be notified in writing of the 40 day comment period for the Draft Basic Assessment. The Draft Report will also be made available at the website http://www.csir.co.za/eia/Port Nolloth Lighthouse.html.

Step 3: Submit Final Basic Assessment Report

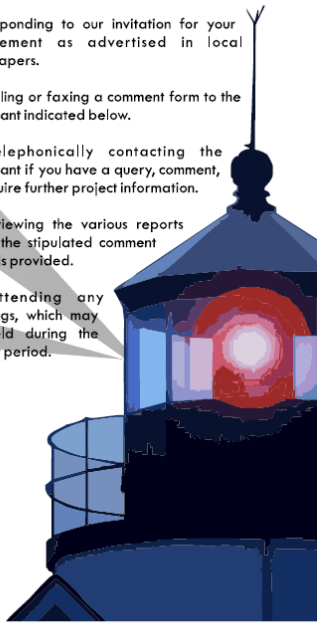
The final BAR will be released and I&APs offered a period of 21 days to comment on the report. Comments from I&APs should be sent directly to the DEA and copied to CSIR. The DEA will look at all received comments in conjunction with the Final BAR for their decision making.

Step 4: Notification of Environmental Authorisation and Appeal Period

The final step in the process entails providing written notification to all I&APs on the project database of the issuing of the environmental authorisation and appeal period, including the manner of appeal.

HOW CAN YOU GET INVOLVED?

1. By responding to our invitation for your involvement as advertised in local newspapers.
2. By mailing or faxing a comment form to the consultant indicated below.
3. By telephonically contacting the consultant if you have a query, comment, or require further project information.
4. By reviewing the various reports within the stipulated comment periods provided.
5. By attending any meetings, which may be held during the review period.



Copy of the project background pamphlets sent to Richtersveld Local Municipality for distribution in Port Nolloth (email correspondence also attached)

From: Kavandren Moodley
Sent: 19/10/2012 12:54:59
CC: Ismail Banoo
To: Sureta Engelbrecht

Dear Sureta,

Further to our discussion, please find attached a pamphlet for the proposed Port Nolloth Lighthouse Project in English and Afrikaans.

Sydney requested that we put this document together and forward to you as an outcome of our meeting on the 4th of October. As such, please could you also forward this email to Sydney as discussed.

Thanks and regards,

Kavandren Moodley
Environmental Management Services (EMS)

CSIR Consulting and Analytical Services
PO Box 17001
Durban, 4001

Tel: (031) 242 2385
Fax: (031) 261 2509
Email: *KMoodley1@csir.co.za*

Subject:	RE: Meeting - Port Nolloth Lighthouse Basic Assessment
Created By:	*KMoodley1@csir.co.za*
Scheduled Date:	
Creation Date:	19/10/2012 12:54
From:	Kavandren Moodley

Recipient	Action	Date & Time	Comment
CC: Ismail Banoo (IBanoo@csir.co.za)	Read	19/10/2012 13:13	
To: Sureta Engelbrecht (sureta@richtersveld.gov.za)	Delivered	19/10/2012 12:56	

Proposed Port Nolloth Lighthouse Project

Transnet Freight Rail proposes to construct and operate a new lighthouse in Port Nolloth. The existing lighthouse will be demolished as it has reached the end of its lifespan. The new lighthouse will comprise a longer lasting concrete tower and will be erected seaward to the existing lighthouse on Beach Road. CSIR has been appointed by Transnet Freight Rail to undertake the Basic Assessment (BA) process for the proposed lighthouse which is currently still in progress. The aim of the BA process is to evaluate the environmental and socio-economic impacts (both positive and negative) that could potentially result from the proposed lighthouse development. Following this assessment, construction activities will commence should authorisation be granted by the National Department of Environmental Affairs.

For information please contact:

Kavandren Moodley,
Email: KMoodley1@csir.co.za
CSIR, P O Box 17001, Durban, 4013
Tel: 031 242 2385; Fax: 031 261 2509.

Or visit the project website at:
http://www.csir.co.za/eia/Port Nolloth Lighthouse.html

CSIR our future through science

TRANSNET freight rail

Voorgestelde Port Nolloth Vuurtoring Projek

Transnet Freight Rail beplan om 'n nuwe vuurtoring in Port Nolloth op te rig en te bedryf. Die bestaande vuurtoring sal gesloop word, aangesien dit die einde van sy lewensduur bereik het. Die nuwe vuurtoring sal bestaan uit 'n meer standhoudende beton toring en sal aan die seewaartse kant van die bestaande vuurtoring te Strandweg op gerig word. CSIR is deur Transnet Freight Rail aangestel om die Basiese Bestekstudie (BB) proses, vir die voorgestelde vuurtoring, wat tans nog aan die gang is, te onderneem. Die doel van die BB proses is te bepaal wat die omgewing en sosio-ekonomiese impakte (beide positief en negatief) is, wat potensieel kan voortspruit uit die voorgestelde vuurtoring ontwikkeling. Na hierdie studie sal konstruksie aktiwiteite begin indien die Nasionale Departement van Omgewingsake die projek goedkeur.

Vir inligting kontak asseblief:

Kavandren Moodley,
E-pos: KMoodley1@csir.co.za
CSIR, Posbus 17001, Durban, 4013
Tel: 031 242 2385; Faks: 031 261 2509.

Of besoek die projek webwerf by:
http://www.csir.co.za/eia/Port

CSIR our future through science

TRANSNET freight rail

Proof of e-mail correspondence with I&APs

From: Kavandren Moodley
Sent: 28/08/2012 12:18:36
To: Abe@dwaf.gov.za; advocacy@birdlife.org.za; chrisf@namakwa-dm.gov.za; dekockr@nra.co.za; dmoleko@half.ncape.gov.za; ejulius4@gmail.com; elsabe.dtec@gmail.com; ethel@richtersveld.gov.za; heinrich@richtersveld.gov.za; jacolinema@daff.gov.za; janniel@namakwa-dm.gov.za; john.basson@transnet.net; klawrence@trpw.ncape.gov.za; lkarsten@sptour.ncape.gov.za; martinette@richtersveld.gov.za; mbrandt@namakwa-dm.gov.za; mgalimberti@sahra.org.za; mikem@alexkor.co.za; nwilson@wwf.org.za; pauld@sanparks.org.za; se@museumsnc.co.za; sydney@richtersveld.gov.za; vincent.matabane@transnet.net; yolanf@ewt.org.za
Subject:RE: BID - TFR Port Nolloth Lighthouse - Northern Cape - DEA REF: 14/12/16/3/3/1/671

Dear Interested and Affected Party,

This correspondence serves to inform you of the initiation of a Basic Assessment (BA) process for the Transnet Freight Rail (TFR) Port Nolloth Lighthouse Project proposed near the town of Port Nolloth, Northern Cape. Please find attached to this email a cover letter, Background Information Document and response form. Hard copies of these documents have also been sent to those of you for which postal addresses are available.

Please feel free to contact the project manager at the details provided below should you have any project related questions.

Kind Regards,

Kavandren Moodley
Environmental Management Services (EMS)

CSIR Consulting and Analytical Services
PO Box 17001
Durban, 4001

Tel: (031) 242 2385
Fax: (031) 261 2509
Email: *KMoodley1@csir.co.za*

Subject:	BID - TFR Port Nolloth Lighthouse - Northern Cape - DEA REF: 14/12/16/3/3/1/671
Created By:	*KMoodley1@csir.co.za*
Scheduled Date:	
Creation Date:	28/08/2012 12:18
From:	Kavandren Moodley

Recipient	Action	Date & Time	Comment
To: Abe@dwaf.gov.za (Abe@dwaf.gov.za)	Delivered	28/08/2012 12:21	
To: advocacy@birdlife.org.za (advocacy@birdlife.org.za)	Delivered	28/08/2012 12:21	
To: chrisf@namakwa-dm.gov.za (chrisf@namakwa-dm.gov.za)	Transferred	28/08/2012 12:20	
To: dekockr@nra.co.za (dekockr@nra.co.za)	Delivered	28/08/2012 12:29	
To: dmoleko@half.ncape.gov.za (dmoleko@half.ncape.gov.za)	Delivered	28/08/2012 12:21	
To: ejulius4@gmail.com (ejulius4@gmail.com)	Delivered	28/08/2012 12:21	
To: elsabe.dtec@gmail.com (elsabe.dtec@gmail.com)	Delivered	28/08/2012 12:21	
To: ethel@richtersveld.gov.za (ethel@richtersveld.gov.za)	Delivered	28/08/2012 12:21	
To: heinrich@richtersveld.gov.za (heinrich@richtersveld.gov.za)	Delivered	28/08/2012 12:21	
CC: Ismail Banoo (IBanoo@csir.co.za)	Read	28/08/2012 12:35	
To: jacolinema@daff.gov.za (jacolinema@daff.gov.za)	Delivered	28/08/2012 13:49	
To: janniel@namakwa-dm.gov.za (janniel@namakwa-dm.gov.za)	Transferred	28/08/2012 12:20	
To: john.basson@transnet.net (john.basson@transnet.net)	Delivered	28/08/2012 12:21	
To: klawrence@trpw.ncape.gov.za (klawrence@trpw.ncape.gov.za)	Delivered	28/08/2012 12:21	
To: lkarsten@sptour.ncape.gov.za (lkarsten@sptour.ncape.gov.za)	Delivered	28/08/2012 12:21	
To: martinette@richtersveld.gov.za (martinette@richtersveld.gov.za)	Delivered	28/08/2012 12:21	
To: mbrandt@namakwa-dm.gov.za (mbrandt@namakwa-dm.gov.za)	Transferred	28/08/2012 12:20	
To: mgalimberti@sahra.org.za (mgalimberti@sahra.org.za)	Delivered	28/08/2012 12:21	
To: mikem@alexkor.co.za (mikem@alexkor.co.za)	Delivered	28/08/2012 12:20	
CC: ndivhuwo.netshilaphala@transnet.net (ndivhuwo.netshilaphala@transnet.net)	Delivered	28/08/2012 12:21	
To: nwilson@wwf.org.za (nwilson@wwf.org.za)	Delivered	28/08/2012 12:51	
To: pauld@sanparks.org.za (pauld@sanparks.org.za)	Undeliverable	28/08/2012 12:21	
To: se@museumsnc.co.za (se@museumsnc.co.za)	Delivered	28/08/2012 12:21	
To: sydney@richtersveld.gov.za (sydney@richtersveld.gov.za)	Delivered	28/08/2012 12:21	
To: vincent.matabane@transnet.net (vincent.matabane@transnet.net)	Delivered	28/08/2012 12:21	
To: yolanf@ewt.org.za (yolanf@ewt.org.za)	Delivered	28/08/2012 12:42	2.0.0 recipients expanded

Proof of correspondence with I&APs via registered post

CSIR copy

23 August 2012 – Registered Mail – CSIR – Kavandren Moodley

Name and Address	Tracking number
Nyiko Nkosi National Department of Environmental Affairs Private Bag X447 Pretoria 0001	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 486 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
Ruth Palm Northern Cape Provincial Government: Roads and Public Works PO Box 3132 Kimberley 8301	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 543 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
Denver van Heerden Northern Cape Provincial Government: Environment and Nature Conservation Private Bag X6010 Kimberley 8300	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 061 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
A Abrahams Northern Cape Department of Water Affairs Private Bag X6101 Kimberley 8300	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 129 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
Elsabe Swart Northern Cape Department of Environment and Nature conservation Private Bag X6102 Kimberley 8300	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 185 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
Lucille Karsten Northern Cape Department of Tourism, Environment and Conservation - Namaqua Private Bag X16 Springbok 8240	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 248 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
Jacoline Mans Department of Agriculture, Forestry and Fisheries (DAFF) Northern Cape PO Box 2782 Upington 8800	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 305 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S

Name and Address	Tracking number
Sibonelo Mbanjwa Northern Cape Department of Tourism, Environment and Conservation Private Bag X6102 Kimberley 8300	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 367 ZA CUSTOMER COPY 301028R
Dineo Moleko Northern Cape Department of Tourism, Environment and Conservation Private Bag X6102 Kimberley 8300	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 424 ZA CUSTOMER COPY 301028R
Jannie Loubser Namakwa District Municipality Private Bag X20 Springbok 8240	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 469 ZA CUSTOMER COPY 301028R
Eddie Julius Namakwa District Municipality Private Bag X20 Springbok 8240	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 526 ZA CUSTOMER COPY 301028R
Chris Fortuin Namakwa District Municipality Private Bag X20 Springbok 8240	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 044 ZA CUSTOMER COPY 301028R
Madeleinne Brandt Namakwa District Municipality Private Bag X20 Springbok 8240	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 101 ZA CUSTOMER COPY 301028R
Heinrich Cloete Richtersveld Local Municipality Private Bag X113 Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 163 ZA CUSTOMER COPY 301028R

Name and Address	Tracking number
Ethel Cloet Richtersveld Local Municipality Private Bag X113 Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 225 ZA CUSTOMER COPY 301028R
Athur Jansen Richtersveld Local Municipality Private Bag X113 Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 750 282 ZA CUSTOMER COPY 301028R
Sydney Adams Richtersveld Local Municipality Private Bag X113 Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 871 ZA CUSTOMER COPY 301028R
Leon Ambrosini Richtersveld Local Municipality 504 Diamond Street Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 899 ZA CUSTOMER COPY 301028R
Gloria Beukes Richtersveld Local Municipality 343 Gravenor Street Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 770 ZA CUSTOMER COPY 301028R
John Basson Transnet National Ports Authority PO Box 50491 Waterfront 8002	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 752 ZA CUSTOMER COPY 301028R
Ndivhuwo Netshilaphala Transnet Freight Rail (RME) PO Box 72501 Johannesburg 2122	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 633 ZA CUSTOMER COPY 301028R
Vincent Matabane Transnet Freight Rail (RME) PO Box 72501 Johannesburg 2122	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 655 ZA CUSTOMER COPY 301028R

Name and Address	Tracking number
Rene de Kock South African National Roads Agency Limited Private Bag X19 Bellville 7535	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 664 ZA CUSTOMER COPY 301028R
Mariagrazia Galimberti South African Heritage Resources Agency PO Box 4637 Cape Town 8000	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 766 ZA CUSTOMER COPY 301028R
Yolan Friedmann Endangered Wildlife Trust Private Bag X11 Modderfontein 1645	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 783 ZA CUSTOMER COPY 301028R
Carolyn Ah Shene-Verdoorn Birdlife South Africa PO Box 515 Randburg 2125	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 885 ZA CUSTOMER COPY 301028R
Gerda Kriel Biota Southern Africa 12 Avond Street Vredendal North 8161	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 908 ZA CUSTOMER COPY 301028R
Suzanne Erasmus WESSA – Northern Cape PO Box 316 Kimberley 8300	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 942 ZA CUSTOMER COPY 301028R
Natasha Wilson WWF – SA PO Box 23273 Claremont 7735	REGISTERED LETTER (with a domestic insurance option) RD 682 712 925 ZA A BOOK COPY

DALBRIDGE 2012-08-28

Name and Address	Tracking number
Paul Daphne South African National Parks PO Box 787 Pretoria 0001	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 823 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
The Manager – Environmental Division Gariep Diamond Mining (Pty) Ltd PO Box 249 Springbok 8240	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 845 ZA CUSTOMER COPY 301028R
M. Mpanza Alexkor Private Bag X5 Alexander Bay 8290	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 806 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S DALBRIDGE 2012-08-28 S
D.P.J. Farmer PO Box 188 Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 868 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
H.T. Van Gysen PO Box 102 Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 749 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
The Director General Department of Public Works Private Bag X5002 Kimberley 8300	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 721 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
Alexander Langsmith Roux 114 Jan Schlotz Street Kamieskroon 8241	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 704 ZA CUSTOMER COPY 301028R DALBRIDGE 2012-08-28 S
E.G. Risi Roman Catholic Mission PO Box 323 Keimoes 8860	REGISTERED LETTER (with a domestic insurance option) RD 682 712 681 ZA A BOOK COPY DALBRIDGE 2012-08-28 S

Name and Address	Tracking number
The Manager Roman Catholic Mission School PO Box 1 Port Nolloth 8280	REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 682 712 939 ZA CUSTOMER COPY 301028R

DALBRIDGE 2012-08-28

REGISTERED LETTER
GEREGISTREERDE BRIEF
(with an insurance option/met 'n versekeringsopsie)

Post Office

Full tracking and tracing/Volledige volg en spoor

Addressed to/Geadresseer aan
CSIR
38 Hustay eight on
1ST ST
Postcode
Poskode

The value of the contents of this letter is as indicated and compensation is not payable for a letter received unconditionally. Compensation is limited to R100.00. No compensation is payable without documentary proof. Optional insurance up to R2 000.00 is available and applies to domestic registered letters only.

Die waarde van die inhoud van hierdie brief is soos aangedui en vergoeding sal nie betaal word vir 'n brief wat sonder voorbehoud ontvang word nie. Vergoeding is beperk tot R100.00. Geen vergoeding is sonder dokumentere bewys betaalbaar nie. Opsionele versekering tot R2 000.00 is beskikbaar en is slegs op binnelandse geregisteerde briewe van toepassing.

Postage paid R ____ c
Service fee / Diensgeld R ____ c
Insurance / Versekering R ____ c
Total / Totaal R ____ c

Insured value of contents
Versekerde waarde van inhoud R ____ c

Enquiries/Navrae
Toll-free number
Tolvry nommer
0800 111 502

Initial of accepting officer

Date Stamp

DALBRIDGE 2012-08-28

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Plak Volg-en-Spoor klientafskrif

Paraaf van aanneem-beampte

Datumstempel

Appendix E.3 Comments and Response Report

1. Potential Impacts on Heritage

No	Comment	From	Date	Response
1.1	Will any old buildings, e.g., the former 1911 AD "explosives booth" be demolished or affected with respect to this extension? Our lighthouse celebrated its centenary in 2009.	Debbie Krivens, Adjacent Landowner	9Sep2012, email	A Heritage Impact Assessment has confirmed that the "explosives booth" near the proposed site is the only structure worthy of being conserved from a heritage perspective. This structure will be left untouched as part of this new lighthouse development. The only structure on site which will be demolished to accommodate the new lighthouse tower is an existing lean-to on the gable wall of the staff quarters. The heritage impact assessment has confirmed that this structure is dubiously older than 60 years of age and of very low heritage significance, a permit application for its removal has been submitted to the South African Heritage Resources Agency – Northern Cape. The Heritage Impact Assessment has further confirmed that the existing aluminium lattice lighthouse was erected in 1979 and replaced an earlier cast iron lighthouse which was commissioned in 1909 and subsequently demolished in the 1970's. The existing lighthouse is therefore 34 years old and of low heritage significance, and will need to be demolished as it has reached the end of its working life and poses a safety risk.
1.2	Given the small footprint of the new development, it is unlikely that any significant impacts on heritage resources will result from the construction of the new lighthouse. Consequently, SAHRA Archaeology, Palaeontology & Meteorites (APM) Unit has no objection to the proposed development on the condition that if any evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), unmarked human burials, fossils or	Kathryn Smuts, SAHRA	28Aug2012, email	Comment noted. As confirmed by the Heritage Impact Assessment, the "explosives booth" near the proposed site is the only structure worthy of being conserved from a heritage perspective, and will continue to be left untouched as part of this new lighthouse development. The only structure on site which will be demolished to accommodate the new lighthouse tower is an existing lean-to on the gable wall of the staff quarters. The

No	Comment	From	Date	Response
	other categories of heritage resources are found during construction, SAHRA APM Unit (Katie Smuts/Colette Scheermeyer 021 462 4502) must be alerted immediately, and an accredited professional archaeologist must be contacted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance a Phase 2 rescue operation might be necessary. Any other heritage resources that may be impacted such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewscapes must, however, be assessed. Decisions on Built Environment (e.g. structures over 60 years) and associated Living Heritage (e.g. sacred sites) must be made by the Provincial Heritage Resources Authority of the Northern Cape ***(Mr. Andrew Timothy, email:*** ratha.timothy@gmail.com) to whom this communication will be copied.			heritage impact assessment has confirmed that this structure is dubiously older than 60 years of age and of very low heritage significance, a permit application for its removal has been submitted to the South African Heritage Resources Agency – Northern Cape. The Heritage Impact Assessment has also confirmed that the existing aluminium lattice lighthouse was erected in 1979 and replaced an earlier cast iron lighthouse which was commissioned in 1909 and subsequently demolished in the 1970's. The existing lighthouse is therefore 34 years old and of low heritage significance, and will need to be demolished as it has reached the end of its working life and poses a safety risk. A Heritage Impact Assessment has confirmed that whilst coastal shell middens are prolific around Port Nolloth, indications are that the study area is far too transformed to be considered archaeologically sensitive. Nonetheless, the potential of archaeological finds during construction excavations has been assessed and the SAHRA APM Units contact details have been made available as a mitigation recommendation.
1.3	I would like to enquire on the structures that will be decommissioned as part of the proposed project and their corresponding ages. This concern has been raised due to the fact that the current lack of capacity in the provincial office means that the Northern Cape Provincial Heritage Resources Agency only deals with section 34 of the National Heritage Resources Act i.e. structures older than 60 years old, and not with section 38 of the Act i.e. burial and archaeological features on site. Decommissioning structures older than 60 years of age will require engagement through a heritage permit application process and a heritage impact assessment should then be conducted by a registered	Andrew Timothy, SAHRA – NC	2Oct2012, meeting	Comment noted. A Heritage Impact Assessment has confirmed that the "explosives booth" near the proposed site is the only structure worthy of being conserved from a heritage perspective. This structure will be left untouched as part of this new lighthouse development. The only structure on site which will be demolished to accommodate the new lighthouse tower is an existing lean-to on the gable wall of the staff quarters. The heritage impact assessment has confirmed that this structure is dubiously older than 60 years of age and of

No	Comment	From	Date	Response
	heritage practitioner. If the structures being decommissioned are not older than 60 years, a heritage permit will not be required. However, if you are uncertain on the age of any of the structures proposed to be decommissioned, I strongly recommend that you consult a certified heritage practitioner to visit the site in order to verify the age and heritage value of the structures of interest.			very low heritage significance, a permit application for its removal has been submitted to the South African Heritage Resources Agency – Northern Cape. The Heritage Impact Assessment has further confirmed that the existing aluminium lattice lighthouse was erected in 1979 and replaced an earlier cast iron lighthouse which was commissioned in 1909 and subsequently demolished in the 1970's. The existing lighthouse is therefore 34 years old and of low heritage significance, and will need to be demolished as it has reached the end of its working life and poses a safety risk.

2. Public Participation concerns

No	Comment	From	Date	Response
2.1	We note that "Die Plattelander" is a small Springbok-issue newspaper. The main area of those who may be affected by this project more than likely do not get this paper or know about Transnet's plans.	Debbie Krivens, Adjacent Landowner	9Sep2012, email	Comment noted. After much research, it was found that "Die Plattelander" was the only newspaper in the region which covered a large distribution range that also covered the town of Port Nolloth. Suggestions on additional newspapers in the area will be welcomed. As an additional measure, simplified pamphlets about the project were produced and forwarded to Richtersveld Local Municipality for distribution in the town (please refer to Appendix E.2 for a copy of the pamphlet).
2.2	Have surrounding residents such as the nearby church been notified?	Debbie Krivens, Adjacent Landowner	4Oct2012, meeting	All surrounding residents have been identified as potential interested and affected parties during the project announcement phase and have been included in our database – including the church. Notice of the proposed development was circulated to these interested and affected parties in the form of the Background Information Document, thus allowing active participation and comment on the basic assessment process. All comments received will be documented in the Basic Assessment report.
2.3	Will there be notice prior to the construction taking place?	Sydney Adams, Richtersveld	4Oct2012, meeting	The CSIR will advertise when the environmental authorisation is issued. Transnet will then directly

No	Comment	From	Date	Response
		Local Municipality		communicate with local municipalities before commencing with any construction activities.

3. Potential Impacts on Noise

No	Comment	From	Date	Response
3.1	Will the engine room's upgrade ensure that it will be sound-proofed for noise and underground vibration of internal equipment?	Debbie Krivens, Adjacent Landowner	9Sep2012, email	There are no planned upgrades on the engine room as part of this proposed project. The existing engine room will remain and function as is, and will be connected to the new lighthouse for operations.
3.2	From the satellite image of erf 335 in your proposal, the new construction will be adjacent to the current position of the lighthouses nautophone. How will this extension affect the nautophones sound reverbations vs. those residing on land? It has been noted and admitted by authorities worldwide that this devices omni-directionality is disturbing.	Debbie Krivens, Adjacent Landowner	9Sep2012, email	There are no planned upgrades or construction activities to the nautophone as part of this Basic Assessment process. However, the CSIR has advised Transnet to consider relocating the existing nautophone as part of their ongoing management maintenance practices for the lighthouse. The intent would be to assist sailors to get the full benefit of the nautophone whilst aiming to minimise the noise impacts for residents in the area. Additionally, the construction of the new concrete tower adjacent to the existing nautophone may assist in absorbing some of the sound reverberations and may potentially lessen the noise impacts for people residing on land.

4. Potential Visual Impacts

No	Comment	From	Date	Response
4.1	(Translated from Afrikaans to English) My property is directly east of the properties on which the proposed development will be. I spent a lot of money to have a nice sea view and I am concerned about the effect that the development will have on the sea view and the financial implications of the development on my property, on which I have a double storey, luxury house.	D.P.J. Farmer, Adjacent Landowner	1Sep2012, Response Form	A desktop analysis of the site plan shows that whilst some sea views may be obscured from the new lighthouse construction (i.e. mainly to the west of your property), direct sea views will be enhanced upon removal of the existing lighthouse (which currently intrudes directly in front of your property). This is attributed to the fact that the new lighthouse will be located closer to the shoreline and to the west overlooking the sea as compared to the existing

No	Comment	From	Date	Response
				lighthouse. Overall, there will be low impact in terms of visual intrusion (including the financial value of the property) in that certain sea views will be enhanced, and certain reduced by the construction of the new lighthouse and removal of the existing lighthouse.
4.2	The effect of the lights on surrounding residents as this can be a nuisance to people living nearby.	Debbie Krivens, Adjacent Landowner	4Oct2012, meeting	The lights will be blanked off on the landward side. The proposed lighthouse will be constructed closer to the shoreline as compared to the existing lighthouse. This will ensure that the light "spill" emanating from the new lighthouse will be confined primarily towards the shoreline. However, this effect will not be significant in relation to the existing lighthouse as the proposed new lighthouse is proposed to be located in close proximity to the existing lighthouse. A Visual Impact Assessment (Appendix D.2) notes that a different set of residents (although probably largely overlapping due to the small change in position of the lighthouse) may be affected by the new light at night from those affected by the current light and will have to adapt to this impact on their nightscape.
4.3	When driving down from Alexander Bay, the reflection of the light from the existing lighthouse is almost blinding and can be dangerous for people driving along that route. How will this be addressed in the new lighthouse?	J.W. Botha, Adjacent Landowner	4Oct2012, meeting	According to a Visual Impact Assessment conducted (Refer to Appendix D.2), visual exposure to motorists driving between Port Nolloth and Alexander Bay will be high only for about 300 m, while those using the R382 between Port Nolloth and Steinkopf will experience low visual exposure for short sections. Additionally, besides being blanked off on the landward side, the new lighthouse will be constructed closer to the shoreline which should reduce the light "spill" inland as compared to the existing lighthouse. However, this effect will not be significant as the proposed new lighthouse will be constructed in close proximity to the existing lighthouse.

5. Potential Impacts on Protected Tree and plant species

No	Comment	From	Date	Response
5.1	The Department of Agriculture, Forestry and Fisheries (DAFF) is mainly concerned about the potential impact on protected tree species. See the National Forests Act, Act 84 of 1998 (NFA) as amended, section 12(1)(d) read with s15(1) and s62(2)(c). The list of protected tree species was published in GN 734 of 16 September 2011. The developer should also take note of the Northern Cape Nature Conservation Act, Act 9 of 2009 (NCNA) and ensure that no protected or specially protected plants are disturbed without a permit from the provincial Department of Environment and Nature Conservation (DENC).	Jacoline Mans, DAFF	10Sep2012, email	Comment noted. As the site is located within a high density urban area and was previously the location of the 1909 cast iron lighthouse, no trees or vegetation will be disturbed by construction activities as the site is fully transformed i.e. concrete/tarred surfaces.

6. Waste impact concerns

No	Comment	From	Date	Response
6.1	I noticed that the existing lean to structure that will be decommissioned as part of the project comprises a corrugated asbestos roof. Asbestos can be regarded as a hazardous waste material and may require a waste permit and consultation with the Department of Labour for decommissioning of hazardous material. Furthermore, the decommissioning of asbestos will require an approved inspection authority to conduct a duty of care and risk assessment process as part of the decommissioning, transportation and disposal activities.	Chumuwari Ketano, DENC	2Oct2012, meeting	We have consulted with a waste specialist (Ronelle Claassen – Refer to Appendix J.2 for electronic correspondence), and were advised that due the limited quantity of asbestos requiring removal (i.e. 0.18 cubic metres maximum and once-off during construction), there is no need for waste permit, as this is not listed as a waste management activity that can have a detrimental effect on the environment in terms GNR 1113, 2010. However, exercising the duty of care principles, from NEMA, the EMPr will recommend that the asbestos sheet be removed in accordance with Section 21 of the Asbestos Regulations, 2001 (under the Occupational Health and Safety Act, 1993).

7. Socio-economic concerns

No	Comment	From	Date	Response
7.1	When does Transnet plan on commencing with the lighthouse construction and how will the project deal with unemployment at a local level? Approximately how many local people will be employed during the construction and operation phases?	Sydney Adams, Richtersveld Local Municipality	4Oct2012, meeting	It is anticipated that only one person from within Transnet will be responsible for the daily lighthouse operations. This is due to the knowledge and skill of required to operate lighthouses. The construction phase of the project should commence within 3 – 4 months after approval and will draw on local unskilled and semi-skilled labour – approximately 25 local individuals. However this number is estimate and the final number of employment opportunities will be confirmed once the final design of the lighthouse is completed.

8. Water Supply concerns

No	Comment	From	Date	Response
8.1	Will the project require water supply?	Sydney Adams, Richtersveld Local Municipality	4Oct2012, meeting	The new lighthouse will draw on existing supplies of water and power currently available and supplied to ERF 335. No new water supply requirements are needed.

9. General

No	Comment	From	Date	Response
9.1	While mariners' safety is Transnet's prime focus, we trust that they will also amply consider those on land who live around its lighthouse complex '24/7', whereas seafarers come and go when it suits their employers. This erf is surrounded by private residences (some of which offer guest accommodations), a church, magistrates court, both a primary and high school, and a hospital which, in future, is earmarked to become a retirement home.	Debbie Krivens, Adjacent Landowner	9Sep2012, email	Comment noted.
9.2	Regarding the above comments, as long as there is no negative light or noise pollution from the VRB beacon and equipment we, as listed below, have no objections	Debbie Krivens, Adjacent Landowner	9Sep2012, email	Comment noted with thanks.

No	Comment	From	Date	Response
	to this necessary structure.			
9.3	Because the area is near the sea, one must make sure that all environmental issues must be taken into consideration.	Sydney Adams, Richtersveld Local Municipality	5Sep2012, email	Comment noted. All environmental and socio-economic issues relating to the proposed project are being assessed as part of the Basic Assessment process
9.4	We believe that this development is a positive one as it would feed into the proposed future Port upgrade plans. The upgrade will ensure that maritime safety aspects are adequately in place. The minister of DAFF indicated that Port Nolloth is one of the ports on the west coast that will need to be registered as a fishing harbor, so this project will tie in nicely into the bigger plan to make the port economically functional from a safety point of view.	Chris Fortuin and Eddie Julius, Namakwa District Municipality	4Oct2012, meeting	Comment noted and duly acknowledged by Transnet.

Appendix E.4 Correspondence Sent to I&APs and Organs of State Prior to the Release of the Draft BAR (Refer to Appendix E.2)

Appendix E.5 Database of I&APs and Organs of State

1. Database of I&APs and Stakeholders

No	Title	First Name/initials	Surname	Company/ Organisation	Position	Interest	Phone	Email	Deregister interest	Let 1: Pre BAR	Request to Register	Comment Pre Bar	Meeting Pre BAR	Let2: Notice of DBAR	Comment DBAR	Let 3: Notice of FBAR	Let4: Notice of EA
1.	Mr	Ismail	Banoo	CSIR	EMS Manager Durban	EAP Leader	0212422378	ibanoo@csir.co.za		x							
2.	Mr	John	Basson	Transnet National Ports Authority		Landowner representative	021 449 5171	john.basson@transnet.net		x							
3.	Ms	Yolande	Rasmeni	Transnet National Ports Authority		Landowner representative		yolande.rasmeni@transnet.net			x						
4.	Mr	Johan	Saayman	Transnet National Ports Authority		Landowner representative		johan.saayman@transnet.net			x						
5.	Mr	Ndivhuwo	Netshilaphala	Transnet Freight Rail	Project Manager	Applicant	011 584 0528	ndivhuwo.netshilaphala@transnet.net		x							
6.	Mr	Vincent	Matabane	Transnet Freight Rail		Applicant	011 584 0551	vincent.matabane@transnet.net		x							
7.				Gariep Diamond Mining (Pty) Ltd	Manager	Adjacent Landowner	027 712 2857			x							
8.	Mr	Mike	Mpanza	Alexkor		Adjacent Landowner	027 831 1330	mikem@alexkor.co.za		x							
9.	Mr	D.P.J.	Farmer			Adjacent Landowner	027 851 8341	nicossewa@hotmail.com		x							
10.	Mr	H.T.	van Gysen			Adjacent Landowner				x							
11.				Department of Public	Director General	Adjacent Landowner				x							

No	Title	First Name/initials	Surname	Company/ Organisation	Position	Interest	Phone	Email	Deregister interest	Let 1: Pre BAR	Request to Register	Comment Pre Bar	Meeting Pre BAR	Let2: Notice of DBAR	Comment DBAR	Let 3: Notice of FBAR	Let4: Notice of EA
				Works													
12.	Mr	Alexander	Langsmith Roux			Adjacent Landowner				x							
13.	Mr	E.G.	Risi	Roman Catholic Mission		Adjacent Landowner				x							
14.				Roman Catholic Mission School	Manager	Adjacent Landowner				x							
15.	Ms	Debbie	Krivens			Adjacent Landowner/I&AP	027 851 8859	djkrivens@yahoo.ca			x		x				
16.	Ms	J.W.	Botha			Adjacent Landowner/I&AP	027 851 8859				x		x				
17.	Mr	T.C.	Botha			Adjacent Landowner/I&AP	027 851 8859				x						

2. Database of Organs of State

Title	First Name	Surname	Company/ Organisation	Position	Interest	Address	Phone	Fax	Email	Deregister interest	Let 1: Pre BAR	Request to Register	Comment Pre Bar	Meeting Pre BAR	Let2: Notice of DBAR	Comment DBAR	Let 3: Notice of FBAR
Ms	Nyiko	Nkosi	DEA		National Authority	Private Bag X447, Pretoria, 0001					x						
Ms	Ruth	Palm	Department of Roads and Public Works		Provincial Dept	PO Box 3132, Kimberley, 8301	053 839 2241	053 839 2291	klawrence@trpw.ncape.gov.za		x						
Mr	Denver	van Heerden	Department of Environment and Nature Conservation		Provincial Dept	Private Bag X6010, Kimberley, 8300	053 807 7305	053 807 7367			x						
Mr	Abe	Abrahams	DWA		Provincial Dept	Private Bag X6101, Kimberley, 8300	053 830 8802	053 831 4534	Abe@dwaf.gov.za		x						
Ms	Elsabe	Swart	Department of Environment and Nature Conservation		Provincial Dept	Private Bag X6102, Kimberley, 8300	053 807 7430	053 831 3530	elsabe.dtec@gmail.com		x						
Ms	Lucille	Karsten	Department of Environment and Nature Conservation - Namaqua		Provincial Dept	Private Bag X16, Springbok, 8240	027 718 1958	027 718 1949	lkarsten@sptour.ncape.gov.za		x						
Ms	Jacoline	Mans	Department of Agriculture, Forestry and Fisheries (DAFF)		Provincial Dept	PO Box 2782, Upington, 8800	054 338 5860	054 334 0030	jacolinema@daff.gov.za		x						
Mr	Sibonelo	Mbanjwa	Department of Environment and Nature Conservation		Provincial Dept	Private Bag X6102, Kimberley, 8300	053 807 7430	053 831 3530	dmoleko@ncpg.gov.za		x						
Ms	Dineo	Moleko	Department of Environment and Nature Conservation		Provincial Dept	Private Bag X6102, Kimberley, 8300	053 807 7430	053 831 3530	dmoleko@ncpg.gov.za		x						
Mr	Chumuwari	Ketano	Department of Environment and Nature	Environ-mental Officer	Provincial Dept	Private Bag X6102, Kimberley, 8300	053 807 7430	053 831 3530	cketano@ncpg.gov.za			x		x			

Title	First Name	Surname	Company/ Organisation	Position	Interest	Address	Phone	Fax	Email	Deregister interest	Let 1: Pre BAR	Request to Register	Comment Pre Bar	Meeting Pre BAR	Let2: Notice of DBAR	Comment DBAR	Let 3: Notice of FBAR
			Conservation														
Mr	Jannie	Loubser	Namakwa District Municipality		District Municipality	Private Bag X20, Springbok, 8240	027 712 8000	027 712 8040	janniel@namakwa-dm.gov.za		x						
Mr	Eddie	Julius	Namakwa District Municipality		District Municipality	Private Bag X20, Springbok, 8240	027 712 8000	027 712 8040	ejulius4@gmail.com		x						
Mr	Chris	Fortuin	Namakwa District Municipality		District Municipality	Private Bag X20, Springbok, 8240	027 712 8000	027 712 8040	chrisf@namakwa-dm.gov.za		x						
Ms	Madeleinne	Brandt	Namakwa District Municipality	Municipal Manager	District Municipality	Private Bag X20, Springbok, 8240	027 712 8000	027 712 8040	mbrandt@namakwa-dm.gov.za		x						
Mr	Heinrich	Cloete	Richtersveld Local Municipality	Infrastructure Manager	Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	heinrich@richtersveld.gov.za		x						
Mr	Ethel	Cloet	Richtersveld Local Municipality		Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	ethel@richtersveld.gov.za		x						
Mr	Arthur	Jansen	Richtersveld Local Municipality		Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	martinette@richtersveld.gov.za		x						
Mr	Sydney	Adams	Richtersveld Local Municipality	Acting Municipal Manager	Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	sydney@richtersveld.gov.za		x						
Mr	Abraham	de Wet	Richtersveld Local Municipality		Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	abraham@richtersveld.gov.za				x				
Mr	Ivan	Valentein	Richtersveld Local Municipality		Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	ivan@richtersveld.gov.za				x				
Cllr	Leon	Ambrosini	Richtersveld Local Municipality	Ward Councilor – 3	Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	martinette@richtersveld.gov.za		x						
Cllr	Gloria	Beukes	Richtersveld Local Municipality	Ward Councilor – 3	Local Municipality	Private Bag X113, Port Nolloth, 8280	027 851 1129	027 851 1101	martinette@richtersveld.gov.za		x						
Ms	Rene	de Kock	South African National Roads		National Roads	Private Bag X19, Bellville, 7535	021 946 1630	021 957 4600	dekockr@nra.co.za		x						

Title	First Name	Surname	Company/ Organisation	Position	Interest	Address	Phone	Fax	Email	Deregister interest	Let 1: Pre BAR	Request to Register	Comment Pre Bar	Meeting Pre BAR	Let2: Notice of DBAR	Comment DBAR	Let 3: Notice of FBAR
			Agency Limited														
Ms	Mariagrazia	Galimberti	South African Heritage Resources Agency		Heritage	PO Box 4637, Cape Town, 8000	021 462 4502	021 462 4509	mgalimberti@sahra.org.za		x						
Ms	Yolan	Friedmann	Endangered Wildlife Trust		Wildlife	Private Bag X11, Modderfontein, 1645	011 372 3600		yolanf@ewt.org.za		x						
Ms	Carolyn	Ah Shene-Verdoorn	Birdlife South Africa		Birdlife	PO Box 515, Randburg, 2125	011 789 1122		advocacy@birdlife.org.za		x						
Ms	Gerda	Kriel	Biota Southern Africa		Biota	12 Avond Street, Vredendal North, 8161		027 231 5465			x						
Ms	Suzanne	Erasmus	WESSA		WESSA NC	PO Box 316, Kimberley, 8300	053 839 2717	053 842 1433	se@museumsnc.co.za		x						
Ms	Natasha	Wilson	WWF – SA		WWF	PO Box 23273, Claremont, 7735	021 657 6656	086 535 9433	nwilson@wwf.org.za		x						
Mr	Paul	Daphne	South African National Parks		Sanparks	PO Box 787, Pretoria, 0001	012 428 9111	012 426 5500	pauld@sanparks.org.za		x						
Mr	Andrew	Timothy	SAHRA – NC		Provincial Authority	1 Robb Street, Kimberley North, 8301	053 831 2537	053 833 1435	ratha.timothy@gmail.com			x					
Ms	Rose	Gwangae	SAHRA – NC		Provincial Authority	1 Robb Street, Kimberley North, 8301	053 831 2537	053 833 1435				x					
Ms	Kathryn	Smuts	SAHRA – WC	Heritage Officer	SAHRA, WC	PO Box 4637, Cape Town, 8000	021 462 4502		ksmuts@sahra.org.za				x				

Appendix E.6 Copies of Comments Received and Minutes of Meetings

1. Copies of Comments Received from I&APs

From: "Wilson, Natasha" <nwilson@wwf.org.za>
Sent: 29/08/2012 17:10:40
To: Kavandren Moodley
Subject:RE: BID - TFR Port Nolloth Lighthouse - Northern Cape - DEA REF: 14/12/16/3/3/1/671

Dear Kavandren
Thank you for your notification. We do not have any comment at this stage.
Kind regards
Natasha Wilson
:: Programme Manager: WWF Land Programme ::
Boundary Terraces, Bridge House 1st Floor
Mariendahl Lane, Newlands, 7700, Cape Town.
PO Box 23273, Claremont, 7735
Tel: (+27 21) 657 6600 **Direct:** (+27 21) 657 6656 **Mobile:** (+27) 76 889 5825
Fax: 086 535 9433 (national only) **Email:** *nwilson@wwf.org.za*
Web: *www.wwf.org.za*

From: Kavandren Moodley [mailto:KMoodley1@csir.co.za]
Sent: 28 August 2012 12:15 PM
To: Abe@dwaf.gov.za; advocacy@birdlife.org.za; chrisf@namakwa-dm.gov.za; dekockr@nra.co.za; dmoleko@half.ncape.gov.za; ejulius4@gmail.com; elsabe.dtec@gmail.com; ethel@richtersveld.gov.za; heinrich@richtersveld.gov.za; jacolinema@daff.gov.za; janniel@namakwa-dm.gov.za; john.basson@transnet.net; klawrence@trpw.ncape.gov.za; lkarsten@sptour.ncape.gov.za; martinette@richtersveld.gov.za; mbrandt@namakwa-dm.gov.za; mgalimberti@sahra.org.za; mikem@alexkor.co.za; Wilson, Natasha; pauld@sanparks.org.za; se@museumsnc.co.za; sydney@richtersveld.gov.za; vincent.matabane@transnet.net; yolanf@ewt.org.za
Cc: Ismail Banoo; ndivhuwo.netshilaphala@transnet.net
Subject: BID - TFR Port Nolloth Lighthouse - Northern Cape - DEA REF: 14/12/16/3/3/1/671

Dear Interested and Affected Party,

This correspondence serves to inform you of the initiation of a Basic Assessment (BA) process for the Transnet Freight Rail (TFR) Port Nolloth Lighthouse Project proposed near the town of Port Nolloth, Northern Cape. Please find attached to this email a cover letter, Background Information Document and response form. Hard copies of these documents have also been sent to those of you for which postal addresses are available.

Please feel free to contact the project manager at the details provided below should you have any project related questions.

Kind Regards,

Kavandren Moodley
Environmental Management Services (EMS)

CSIR Consulting and Analytical Services
PO Box 17001
Durban, 4001

Tel: (031) 242 2385
Fax: (031) 261 2509
Email: *KMoodley1@csir.co.za*

From: "Debbie Krivens" <djkrivens@yahoo.ca>
Sent: 04/09/2012 11:34:27
To: Kavandren Moodley
Subject: Port Nolloth Proposed Lighthouse I&AP Registration

Dear Kavandren

DEA ref. no. 14/12/16/3/3/1/671
NEAS ref. no. DEA/EIA/0001379/2012

In keeping with this advertisement-notice in Springbok's "Die Plattelander" of 31 August 2012, I here by wish to register as an I&AP (Interested & Affected Party) w.r.t. the proposed new lighthouse complex at Port Nolloth.

NB: Please register the three of us below as one entity (group) in my name:

D.J. Krivens (and T.C. & J.W. Botha)
P.O. Box 532
8280 Port Nolloth
N Cape

Tel. 027 851 8859

Our preferred method of notification is by paper post ("snail mail"); one set of documents will amply serve the three of us. We would like to avoid unwieldy downloads of files. I have already downloaded these two PDF files off your Website; thus no need to send them:

<Port Nolloth BID_A3_folded_Aug2012.pdf>
<Response Form_Port Nolloth.pdf>

Yours faithfully | **Debbie Krivens** | Message Ends

From: "Debbie Krivens" <djkrivens@yahoo.ca>
Sent: 09/09/2012 09:08:55
To: Kavandren Moodley
Subject: DEA/EIA/0001379/2012 Port Nolloth

Dear Mr. Kavandren Moodley

DEA ref. no. 14/12/16/3/3/1/671
NEAS ref. no. DEA/EIA/0001379/2012

PROPOSED NEW LIGHTHOUSE FOR PORT NOLLOTH

SUMMARY OF <Port Nolloth BID_A3_folded_Aug2012.pdf>: It is understood that Transnet Freight-Rail (Lighthouse Services) propose to upgrade Erf 355, Kusweg, Port Nolloth, with a new lighthouse comprising a 4 m internal dia. x 11 m tall concrete tower capped with a 7 m dia. platform to support the lantern-house* made of glass fibre (2.8 m dia. x 2.7 m high) = an approx. 14+ m tall structure with access to it via a metal cat-ladder and trap door.

*The VRB beacon will be blanked off toward the land side; having a rotating range of 15-22 nmi (17.3-25.3 mi or 27.8-40.7 km) with 6-8 Fresnet lenses around a stationary lamp of up to 100 W generating 6-8 discrete pencil beams.

To quote: "The final layout might result in buildings and infrastructure with a footprint of 10 sq. m encroaching within 32 m of a watercourse." The new lighthouse will be connected to the existing engine room via a 220V u/g cable, which room is to be upgraded.

QUESTIONS & COMMENTS

[Q1] Will the engine room's upgrade ensure that it will be sound-proofed for noise and underground vibration of internal equipment?

[Q2] Will any old buildings, e.g., the former 1911 AD "explosives booth" (photo attached) be demolished or affected w.r.t. this extension? (Refer to "New Location" blue ellipse on your Locality Plan). Our lighthouse celebrated its centenary in 2009.

[Q3] From the satellite image of erf 355 in your proposal, the new construction will be adjacent to the current position of LHS's nautophone. How will this extension affect the nautophone's sound reverberations vs. those residing on land? It has been noted and admitted by authorities worldwide that this device's omni-directionality is disturbing.

(C-1) We note that "Die Plattelander" is a small Springbok-issue newspaper. The main area of those who may be affected by this project more than likely do not get this paper or know about Transnet's plans.

(C-2) While mariners' safety is Transnet's prime focus, we trust that they will also amply consider those on land who live around its lighthouse complex '24/7', whereas seafarers come and go when it suits their employers. This erf is surrounded by private residences (some of which offer guest accommodations), a church, magistrate's court, both a primary and a high school, and a hospital which, in future, is earmarked to become a retirement home.

(C-3) Regarding the above comments, as long as there is no light or noise pollution from the VRB beacon and equipment we, as listed below, have no objection to this necessary structure.

D.J. Krivens (and for: T.C. & J.W. Botha) Message Ends.

agriculture,
forestry & fisheries
Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

Directorate: Forestry Management (Other Regions)
P.O. Box 2782, Upington, 8800, Tel 054 338 5909, Fax 054 334 0030

Enquiries: J Mans
E-mail: **JacolineMa@daff.gov.za**
Date: 10 September 2012
Ref: **F13/11/2/182**

CSIR Consulting and Analytical Services
P.O. Box 17001
DURBAN
4013

ATTENTION: **Kavandren Moodley (KMoodley1@csir.co.za)**

RE: COMMENTS ON BACKGROUND INFORMATION DOCUMENT FOR THE PROPOSED LIGHTHOUSE PROJECT, PORT NOLLOTH, NORTHERN CAPE (DEA REF: 14/12/16/3/3/1/671)

The Directorate: Forestry Management in the Department of Agriculture, Forestry and Fisheries (DAFF) would hereby like to make the following comments on the above-mentioned proposed development:

1. The DAFF is mainly concerned about the potential impact on protected tree species. See the National Forests Act, Act 84 of 1998 (NFA) as amended, section 12(1)(d) read with s15(1) and s62(2)(c). The list of protected tree species was published in GN 734 of 16 September 2011.

2. The developer should also take note of the Northern Cape Nature Conservation Act, Act 9 of 2009 (NCNA) and ensure that no protected or specially protected plants are disturbed without a permit from the provincial Department of Environment and Nature Conservation (DENC).

Yours truly,

Jacoline Mans
Chief Forester: NFA Regulation

DEPT. VAN LANDBOU, BOSBOU & VISSERYE
NORTHERN CAPE REGION
2012 -09- 10
PO BOX 2782, UPINGTON, 8800
TEL: 054 338 5860, FAX: 054 334 0030
DEPT. OF AGRICULTURE, FORESTRY & FISHERIES

BASIESE BESTEKSTUDIE VIR DIE VOORGESTELDE PORT NOLLOTH LIGHUIS PROJEK – PORT NOLLOTH, NOORD-KAAP
DEA Verwysings Nommer: 14/12/16/3/3/1/671
NEAS Verwysings Nommer: DEA/EIA/0001379/2012

REGISTRASIE EN KOMMENTAAR VORM

28 Augustus 2012

Naam: D.P.J. FARMER	Telefoon: 027-851 8341
Organisasie: PERSOONLIK	Faks: 027-851 8650
Benoeming:	E-pos: nicossewa@hotmail.com
Fisiese / Woon adres: NO.39 HOOFWEG PORT NOLLOTH 8280	Posadres: P.O. BOX 188 PORT NOLLOTH 8280

Dui asseblief aan of u wil registreer as 'n Belanghebbende en Geaffekteerde Party. Registrasie is 'n vereiste vir verdere kommunikasie en ontvangs van inligting tydens die Basiese Bestekstudie proses

JA ✓		NEE

Dui asseblief aan of u enige belang (besigheid, finansieël, persoonlik of ander) het by die aansoek om omgewingsmagtiging:

PERSOONLIK – FINANSIEËL

Beskryf asseblief enige knelpunte of bekommernisse wat u dink oorweeg moet word gedurende die Basiese Bestekstudie proses

MY EIENDOM IS DIREK OOS VAN DIE EIENDOMME WAAROP DIE ONTWIKKELINGE BEOOG WORD GELEE, ER HET BAIE GELD GESPAAR OM 'N MOOI SEE-UITSIG TE VERKRY EN IS BEKOMMERD OOR DIE UITWERKING VAN DIE ONTWIKKELING OP DIE SEE UITSIG WAT ER TANS GENIET EN DIE FINANSIEËLE IMPLIKASIE DAARVAN OP MY GIENDOM, WAARBY ER 'N DUBBELVERDIEPING LUKSE WONING OPGERIG HET.

Verskaf asseblief besonderhede van enige ander individue of organisasies wat betrek moet word:

MY BURE, HEIN VAN GEYSEN EN ALEXKOR, THELMA DINA KOTZE.

Stuur asseblief hierdie ***Registrasie & Kommentaar Vorm*** aan:

Kavandren Moodley
CSIR
Posbus 17001,
Durban, 4013
Tel: 031 242 2385
Faks: 031 261 2509
E-pos: KMoodley1@csir.co.za
Webwerf: www.csir.co.za/eia/Port Nolloth Lighthouse.html

BASIC ASSESSMENT FOR THE PROPOSED PORT NOLLOTH LIGHTHOUSE PROJECT – PORT NOLLOTH, NORTHERN CAPE
DEA Reference No: 14/12/16/3/3/1/671
NEAS Reference No: DEA/EIA/0001379/2012

REGISTRATION AND COMMENTS FORM

28 August 2012

Name: JOHN BASSON	Telephone: 021-4495171
Organisation: TRANSNET NATIONAL PORTS AUTH.	Fax: 021-4498310
Designation: COMMERCIAL MANAGER	Email: john.basson@transnet.net.
Physical address: GREEN POINT LIGHTHOUSE 100 BEACH ROAD MOUILLE POINT CAPE TOWN	Postal address: P.O. BOX 50491 WATERFRONT 8002

Please indicate if you want to register as an Interested and Affected Party. Registration is required in order to receive further correspondence during the BA process		
YES	X	**NO**

Please indicate if you have any interest (business, financial, personal or other) in the application for environmental authorisation:
OWNER OF LAND ON WHICH LIGHTHOUSE WILL BE ERECTED.

Please describe any issues or concerns you think should be considered during the Basic Assessment process
N.A.

Please provide details of any other individuals or organisations that should be involved:
N.A.

Please submit this ***Registration & Comments Form*** to:

Kavandren Moodley
CSIR
P O Box 17001,
Durban, 4013
Tel: 031 242 2385
Fax: 031 261 2509
E-mail: KMoodley1@csir.co.za
Website: www.csir.co.za/eia/Port Nolloth Lighthouse.html

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TRANSNET freight rail

BASIC ASSESSMENT FOR THE PROPOSED PORT NOLLOTH LIGHTHOUSE PROJECT – PORT NOLLOTH, NORTHERN CAPE
DEA Reference No: 14/12/16/3/3/1/671
NEAS Reference No: DEA/EIA/0001379/2012

REGISTRATION AND COMMENTS FORM

28 August 2012

Name: Sydney Adams	Telephone: 027 851 1112.
Organisation: Richtersveld Municipality	Fax: 027 851 1101.
Designation: Acting Municipal Manager	Email: Sydney@richtersveld.gov.za.
Physical address: Main Road 169 Port Nolloth. 8280	Postal address: Private Bag x 113. Port Nolloth. 8280

Please indicate if you want to register as an Interested and Affected Party. Registration is required in order to receive further correspondence during the BA process.

YES X	NO

Please indicate if you have any interest (business, financial, personal or other) in the application for environmental authorisation:

We are the Local Authority for Port Nolloth.

Please describe any issues or concerns you think should be considered during the Basic Assessment process

Because the area is near the sea, one must make sure that all environmental issues must be taken into consideration

Please provide details of any other individuals or organisations that should be involved:

Heinrich Cloete : heinrich@richtersveld.gov.za
Arthur Jansen : arthur@richtersveld.gov.za.

Please submit this ***Registration & Comments Form*** to:

Kavandren Moodley
CSIR
P O Box 17001,
Durban, 4013
Tel: 031 242 2385
Fax: 031 261 2509
E-mail: KMoodley1@csir.co.za
Website: www.csir.co.za/eia/Port Nolloth Lighthouse.html

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TRANSNET freight rail

Port Nolloth Lighthouse
Our Ref: 9/2/066/0003

Enquiries: Kathryn Smuts
Tel: 021 462 4502
Email: ksmuts@sahra.org.za
CaseID: 478

Date: Tuesday August 28, 2012

Page No: 1

Letter

In terms of section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Mr Kavandren Moodley
Council for Scientific and Industrial Research
PO Box 17001
Durban
4013

PROPOSED PORT NOLLOTH LIGHTHOUSE PROJECT – NEAR PORT NOLLOTH, NORTHERN CAPE. DEA REFERENCE NUMBER – 14/12/16/3/3/1/671 NEAS REFERENCE NUMBER – DEA/EIA/0001379/2012

Thank you for your indication that development is to take place in this area.

In terms of the National Heritage Resources Act, no 25 of 1999, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years, structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. This means that before such sites are disturbed by development it is incumbent on the developer to ensure that a Heritage Impact Assessment is done. This must include the archaeological component (Phase 1) and any other applicable heritage components. Appropriate (Phase 2) mitigation, which involves recording, sampling and dating sites that are to be destroyed, must be done as required.

Decision:

Given the small footprint of the new development, it is unlikely that any significant impacts on heritage resources will result from the construction of the new lighthouse.

Consequently, SAHRA Archaeology, Palaeontology & Meteorites (APM) Unit has no objection to the proposed development on the condition that if any evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are found during construction, SAHRA APM Unit (Katie Smuts/Colette Scheermeyer 021 462 4502) must be alerted immediately, and an accredited professional archaeologist must be contacted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance a Phase 2 rescue operation might be necessary.

Any other heritage resources that may be impacted such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewscapes must, however, be assessed. Decisions on Built Environment (e.g. structures over 60 years) and associated Living Heritage (e.g. sacred sites) must be made by the Provincial Heritage Resources Authority of the Northern Cape ***(Mr. Andrew Timothy, email:*** ratha.timothy@gmail.com) to whom this communication will be copied.

The South African Heritage Resources Agency
Street Address: 111 Harrington Street, Cape Town 8000 * Postal Address: PO Box 4637, Cape Town 8000
* Tel: +27 21 462 4502 * Fax: +27 21 462 4509 * Web: http://www.sahra.org.za

Port Nolloth Lighthouse
Our Ref: 9/2/066/0003

Enquiries: Kathryn Smuts
Tel: 021 462 4502
Email: ksmuts@sahra.org.za
CaseID: 478

Date: Tuesday August 28, 2012

Page No: 2

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Kathryn Smuts
Heritage Officer: Archaeology
South African Heritage Resources Agency

Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:
(DEA, Ref: 14/12/16/3/3/1/671)

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.

The South African Heritage Resources Agency
Street Address: 111 Harrington Street, Cape Town 8000 * Postal Address: PO Box 4637, Cape Town 8000
* Tel: +27 21 462 4502 * Fax: +27 21 462 4509 * Web: http://www.sahra.org.za

2. Copies of meeting minutes with key stakeholders

MINUTES OF STAKEHOLDER MEETINGS WITH NORTHERN CAPE DEPARTMENT OF ENVIRONMENT AND NATURE CONSERVATION

VENUE: **PROVINCIAL OFFICES, KIMBERLEY**
2 OCTOBER 2012, 11:00am

ATTENDANCE REGISTER				
		Name	**Organisation**	**Contact details**
1	DM	Dineo Moleko	DENC	Tel: 053 807 7430 Cell: 079 000 9456 Fax: 053 831 3530 Email: *dmoleko@ncpg.gov.za*
2	CK	Chumuwari Ketano	DENC	Tel: 053 807 7466 Cell: 072 308 0642 Email: *cketano@ncpg.gov.za*
3	NN	Ndivhuwo Netshilaphala	TRF	Tel: 011 584 0528 Cell: 071 856 3667 Fax: 011 584 1330 Email: *ndivhuwo.netshilaphala@transnet.net*
4	KM	Kavandren Moodley	CSIR	Tel: 031 242 2385 Cell: 073 2744 486 Fax: 031 261 2509 Email: *kmoodley1@csir.co.za*
5	IB	Ismail Banoo	CSIR	Tel: 031 242 2378 Cell: 084 667 8680 Fax: 031 261 2509 Email: *ibanoo@csir.co.za*

Name	Comments	Name	Responses
KM	You have been identified as a key stakeholder representing the ??? as provincial commenting authority for the proposed Port Nolloth Lighthouse project. What are your comments and views on the proposed project?	CK	I noticed that the existing lean to structure that will be decommissioned as part of the project comprises a corrugated asbestos roof. Asbestos can be regarded as a hazardous waste material and may require a waste permit and consultation with the Department of Labour for decommissioning of hazardous material. Furthermore, the decommissioning of asbestos will require an approved inspection authority to conduct a duty of care and risk assessment process as part of the decommissioning, transportation and disposal activities.
NN	How does the highlighted consultation process with the Department of Labour fit into the overall Basic Assessment?	CK	Consultation with the Department of Labour for the risk assessment process is an issue that can take place after the Basic Assessment process itself as this is a separate issue altogether.
IB	If asbestos sheeting is present, we will consider the process highlighted. However, we will need to consult the National Waste Act to determine if there are any triggers in terms of the quantity of asbestos which will require a waste licence. We suspect that the quantity of asbestos will be minimal and will not exceed the threshold which requires a waste licence to be obtained. However, should the asbestos need to be removed, then all duty of care will be recommended in the Basic Assessment report. We will recommend that the asbestos be removed and disposed off in a registered landfill site and the activities be undertaken by an accredited service provider. It is also important to note that the final designs/layout of the new lighthouse has not been concluded and the possibility also exists that the structure may not need to be removed at all and hence no asbestos removal either. Are you in agreement with our thinking on this approach?	CK	We agree. As long the project in conducted in an environmentally responsible manner we have no objection to the project. We have no other issues with the project at this stage.
CK	May I also recommend that our colleague, Lucille Karsten, who currently resides in the District offices be consulted with regards to the proposed project (*details of Lucille Kartsen were provided*).	KM	Noted. We will add Lucille to our database and ensure that she is kept informed as the Basic Assessment process unfolds.
KM	Thanked all for taking the time to attend and meeting was closed.		

MINUTES OF STAKEHOLDER MEETINGS WITH NAMAKWA DISTRICT MUNICIPALITY

***VENUE*: NAMAKWA DISTRICT OFFICES, SPRINGBOK**
4 OCTOBER 2012, 14:00pm

ATTENDANCE REGISTER				
		Name	**Organisation**	**Contact details**
1	EJ	Eddie Julius	NDM	Tel: 027 712 8000 Cell: 076 731 8731 Fax: 086 602 6100 Email: *ejulius4@gmail.com*
2	CF	Chris Fortuin	NDM	Tel: 027 712 8000 Email: *chrisf@namakwa-dm.gov.za*
3	JS	Johan Saayman	TNPA	Cell: 083 460 2076 Email: *johan.saayman@transnet.net*
4	YR	Yolande Rasmeni	TNPA	Cell: 078 097 4798 Email: *yolande.rasmeni@transnet.net*
5	NN	Ndivhuwo Netshilaphala	TRF	Tel: 011 584 0528 Cell: 071 856 3667 Fax: 011 584 1330 Email: *ndivhuwo.netshilaphala@transnet.net*
6	KM	Kavandren Moodley	CSIR	Tel: 031 242 2385 Cell: 073 2744 486 Fax: 031 261 2509 Email: *kmoodley1@csir.co.za*
7	IB	Ismail Banoo	CSIR	Tel: 031 242 2378 Cell: 084 667 8680 Fax: 031 261 2509 Email: *ibanoo@csir.co.za*

Name	Comments	Name	Responses
KM	You have been identified as key stakeholder representing the district municipality within which the proposed Port Nolloth Lighthouse project will be developed. What are your comments and views on the proposed project?	CF	What will happen to the old lighthouse?
		KM	The old lighthouse will be decommissioned and the aluminium lattice structure will either be recycled or sold for scrap metal.
		CF	What will the new tower comprise of?
		KM	The new tower will comprise a concrete tower approximately 11 m high and will support a lantern house of glass fibre construction approximately 2.7 m high. The light emanating from the lantern house will be blocked on the landward side. There are no planned upgrades on the existing engine room – a 220 V cable will be connected from the existing engine room to power the new lighthouse.
		CF	When does Transnet propose to start with the construction?
		IB	Approximately 3 – 4 months after approval. Probably leading into the 2014 financial year.
CF/EJ	We believe that this development is a positive one as it would feed into the proposed future Port upgrade plans. The upgrade will ensure that maritime safety aspects are adequately in place. The minister of DAFF indicated that Port Nolloth is one of the ports on the west coast that will need to be registered as a fishing harbour, so this project will tie in nicely into the bigger plan to make the port economically functional from a safety point of view.	KM	Noted with thanks. The CSIR also believe that the new lighthouse will help improve navigational safety at the Port.
KM	Is Namakwa district municipality in support of such projects in the sense that it is included as a priority in the IDP?	CF	Yes. This project will feed into the IDP from a coastal development projects perspective. The District is fully supportive of the project.
KM	Is the activity in line with the Environmental Management Framework of the municipality?	CF	Yes. It fits into the EMF in terms of the integrated coastal management act which addresses disaster management at the coast. This project will mitigate some of these risks from a marine safety point of view.
KM	Thank all for making the time to attend and the meeting was closed.		

MINUTES OF STAKEHOLDER MEETINGS WITH RICHTERSVELD LOCAL MUNICIPALITY

***VENUE*: RICHTERSVELD MUNICIPAL OFFICES, PORT NOLLOTH**
4 OCTOBER 2012, 10:00am

ATTENDANCE REGISTER				
		Name	**Organisation**	**Contact details**
1	SA	Sydney Adams	RM	Tel: 027 851 1114 Cell: 082 763 9941 Fax: 086 527 2556 Email: *sydney@richtersveld.gov.za*
2	AdW	Abraham de Wet	RM	Tel: 027 851 1116 Cell: 073 073 9681 Fax: 086 527 2556 Email: *abraham@richtersveld.gov.za*
3	IV	Ivan Valentein	RM	Tel: 027 851 1128 Cell: 083 620 5492 Fax: 086 527 2556 Email: *ivan@richtersveld.gov.za*
4	JS	Johan Saayman	TNPA	Cell: 083 460 2076 Email: *johan.saayman@transnet.net*
5	YR	Yolande Rasmeni	TNPA	Cell: 078 097 4798 Email: *yolande.rasmeni@transnet.net*
6	NN	Ndivhuwo Netshilaphala	TRF	Tel: 011 584 0528 Cell: 071 856 3667 Fax: 011 584 1330 Email: *ndivhuwo.netshilaphala@transnet.net*
7	KM	Kavandren Moodley	CSIR	Tel: 031 242 2385 Cell: 073 2744 486 Fax: 031 261 2509 Email: *kmoodley1@csir.co.za*
8	IB	Ismail Banoo	CSIR	Tel: 031 242 2378 Cell: 084 667 8680 Fax: 031 261 2509 Email: *ibanoo@csir.co.za*

Name	Comments	Name	Responses
IB	Please could you communicate the meeting outcomes with the relevant ward councillors – they are key stakeholders in the Basic Assessment process and are not present today?	SA	Noted. We will ensure that the information is communicated to the ward councillors and we apologise for their non-attendance today.
KM	You have been identified as a key stakeholder as you represent the local municipal authority within which the proposed Port Nolloth Lighthouse project will be undertaken. What are your comments and views on the proposed project?	SA	Overall we are glad to hear about the infrastructural development in terms of the lighthouse development. We need this project especially in terms of job creation. Having said this, our issues mainly relates to: When does Transnet plan on commencing with the lighthouse construction and how will the project deal with unemployment at a local level? Approximately how many local people will be employed during the construction and operation phases? How will environmental input feed into the Basic Assessment process?
		NN	It is anticipated that only one person from within Transnet will be responsible for the daily lighthouse operations. This is due to the knowledge and skill of required to operate lighthouses. The construction phase of the project should commence within 3 – 4 months after approval and will draw on local unskilled and semi-skilled labour – approximately 25 local individuals. However this number is estimate and the final number of employment opportunities will be confirmed once the final design of the lighthouse is completed.
		KM	One of the aims of the Basic Assessment process is for the independent consultants (i.e. CSIR) to explore all potential environmental impacts of the proposed project. This will feed into the Basic Assessment report and will inform authority decision making. Should you have any concerns from an environmental perspective, please feel free to send those to us and we will ensure that all comments are addressed as part of the Basic Assessment process.

SA	Will the project require water supply?	IB	The new lighthouse will draw on existing supplies of water and power currently available and supplied to ERF 335. No new water supply requirements are needed.
SA	Will there be notice prior to the construction taking place?	NN	The CSIR will advertise when the environmental authorisation is issued. Transnet will then directly communicate with local municipalities before commencing with any construction activities.
SA	Please could you send through a simple pamphlet about the proposed project to advertise around the community?	IB	Noted. We will draw these up in English and Afrikaans and keep it short and simple so that the people can understand the project. We will send these through to you via courier as soon as they are completed.
KM	Is this project accounted for in the infrastructure planning or the IDP of the municipality?	SA	Currently, it is not. However there can be a simple process to change this. In the next report to council we will inform council and an amendment will be made to include this project in the IDP.
KM	Is there available landfill capacity in the area for concrete waste that may emanate during the construction process?	SA	Yes there are plenty of registered landfills in and around the area so landfill capacity should not be a problem.
KM	What is the current municipal land use zoning as per the local IDP records?	SA	Residential. No rezoning is required as the property for the proposed project belongs to Transnet.
KM	What are the ward numbers of the project development area?	SA	Ward 3.
KM	Do you have any maps relating to water sources, soil and geological stability of the site in any of your planning sections?	SA	Some maps can be obtained from our municipal website. Alternatively, you can contact us directly in this regard. Kindly address all correspondence to Sureta.
IB	Thanked all for taking the time to attend and then meeting was closed.		

MINUTES OF STAKEHOLDER MEETINGS WITH NORTHERN CAPE PROVINCIAL HERITAGE RESOURCES AGENCY

***VENUE*: NORTHERN CAPE PHRA OFFICES, KIMBERLEY**
2 OCTOBER 2012, 11:30am

ATTENDANCE REGISTER				
		Name	**Organisation**	**Contact details**
1	AT	Andrew Timothy	PHRA	Tel: 053 831 2537 Cell: 079 036 9294 Fax: 053 833 1435 Email: *ratha.timothy@gmail.com*
2	RG	Rose Gwangae	PHRA	Tel: 053 831 2537 Cell: 073 606 5455 Fax: 053 833 1435
3	NN	Ndivhuwo Netshilaphala	TRF	Tel: 011 584 0528 Cell: 071 856 3667 Fax: 011 584 1330 Email: *ndivhuwo.netshilaphala@transnet.net*
4	KM	Kavandren Moodley	CSIR	Tel: 031 242 2385 Cell: 073 2744 486 Fax: 031 261 2509 Email: *kmoodley1@csir.co.za*
5	IB	Ismail Banoo	CSIR	Tel: 031 242 2378 Cell: 084 667 8680 Fax: 031 261 2509 Email: *ibanoo@csir.co.za*

Name	Comments	Name	Responses
KM	You have been identified by the South African Heritage Resources Agency (SAHRA) as a key provincial stakeholder in terms of the project from a heritage perspective. What are your thoughts on the letter sent through by SAHRA stating their comments on the proposed project, and do you have any additional comments on the project from a heritage perspective?	AT	I would like to enquire on the structures that will be decommissioned as part of the proposed project and their corresponding ages.
		KM	Our research indicates that the existing aluminium lattice structure was commissioned in 1979 and replaced a cast iron structure commissioned in 1909. As such the existing aluminium lattice lighthouse is less than 60 years old and does not require a permit to be decommissioned as per the National Heritage Resources Act.
		IB	An existing lean to structure of approximately 6 metres by 3 metres in an area attached to the staff quarters on site may potentially be decommissioned as part of the proposed project. We understand that this structure is less than 60 years old also. However, this will be confirmed as part of our site visits and additional research on the age of the building.
		AT	This concern has been raised due to the fact that the current lack of capacity in the provincial office means that the Northern Cape Provincial Heritage Resources Agency only deals with section 34 of the National Heritage Resources Act i.e. structures older than 60 years old, and not with section 38 of the Act i.e. burial and archaeological features on site. Decommissioning structures older than 60 years of age will require engagement through a heritage permit application process and a heritage impact assessment should then be conducted by a registered heritage practitioner. If the structures being decommissioned are not older than 60 years, a heritage permit will not be required. However, if you are uncertain on the age of any of the structures proposed to be decommissioned, I strongly recommend that you consult a certified heritage practitioner to visit the site in order to verify the age and heritage value of the structures of interest.
IB	Thank you for the suggestion and we will certainly consider this recommendation in the Basic Assessment process. We propose to conduct the site visit, meet with Transnet personnel and confirm	AT	This approach is sufficient. I would like to stress on the fact that all features older than 60 years of age be identified and verified as failure to do so could result in major implications on the project

	the age of the structures associated with the decommissioning activities and review the engineering plans for the proposed development of the lighthouse. We will then make a call on the need for a heritage impact study and associated heritage permit application process. We will also incorporate SAHRA's comments pertaining to section 38 of the Act as part of the Basic Assessment Environmental Management Plan. We believe that a heritage study and permit is not essential as per the requirements in the letter from SAHRA – provided that the issues raised by SAHRA are adequately addressed in the Basic Assessment process and the management plan. Are you in agreement with our proposed approach?		from a heritage legal non-compliance point of view. If all structures being decommissioned are less than 60 years old, a heritage permit and a heritage impact assessment is not required. In line with this, please could you confirm the age of all structures that will be decommissioned through your site visits and research and then send a letter to the Northern Cape Provincial Heritage offices based on section the 34 requirements of the Act and forward this letter to the Northern Cape Provincial Heritage Resources Agency for our records. We will then send a letter to confirm our position on this aspect. In principle, the NCape Heritage office fully supports this lighthouse project and we have no objection to the development provided all legal compliance aspects are considered and enforced.
KM	Thank you taking the time to meet with the CSIR and we look forward to your continued involvement in the Basic Assessment process.	AT	Thank you for taking the time to meeting the NCape office and we look forward to interacting with the CSIR on future projects in the NCape as well.
	Meeting was closed.		

MINUTES OF STAKEHOLDER MEETINGS WITH D.J. KRIVENS AND J.W. BOTHA (I&AP'S)

***VENUE*: SCOTIA INN, PORT NOLLOTH**
4 OCTOBER 2012, 08:30am

ATTENDANCE REGISTER				
		Name	**Organisation**	**Contact details**
1	DK	D.J. Krivens	I&AP	Tel: 027 851 8859 Email: *djkrivens@yahoo.ca*
2	JB	J.W. Botha	I&AP	Tel: 027 851 8859
3	JS	Johan Saayman	TNPA	Cell: 083 460 2076 Email: *johan.saayman@transnet.net*
4	YR	Yolande Rasmeni	TNPA	Cell: 078 097 4798 Email: *yolande.rasmeni@transnet.net*
5	NN	Ndivhuwo Netshilaphala	TRF	Tel: 011 584 0528 Cell: 071 856 3667 Fax: 011 584 1330 Email: *ndivhuwo.netshilaphala@transnet.net*
6	KM	Kavandren Moodley	CSIR	Tel: 031 242 2385 Cell: 073 2744 486 Fax: 031 261 2509 Email: *kmoodley1@csir.co.za*
7	IB	Ismail Banoo	CSIR	Tel: 031 242 2378 Cell: 084 667 8680 Fax: 031 261 2509 Email: *ibanoo@csir.co.za*

Name	Comments	Name	Responses
KM	What are your major concerns and views on the proposed project?	DK	In terms of aesthetics we have no problem with the proposed lighthouse. Our concerns mainly relates to: The effect of the lights on surrounding residents as this can be a nuisance to people living nearby. The noise generated by the nautophone. Globally, the devices omni-directionality has been noted as being disturbing. In addition, I have consulted several sailors who have confirmed that they cannot hear the nautophone out at sea and instead depend on the bell boys at sea. In this sense, the nautophone is a nuisance to people residing on land and does not benefit the sailors either. Furthermore, the wind mostly blows on land and this exacerbates the noise impacts on people residing on land. How will these issues be dealt with? The lighthouse recently celebrated its centenary. How will decommissioning activities affect structures such as the explosives booth on site which will have some heritage value attached to it? Has surrounding residents such as the nearby church been notified? The new lighthouse will be in close proximity and could potentially be a visual nuisance.
		IB	The lights will be blanked off on the landward side. The proposed lighthouse will be constructed closer to the shoreline as compared to the existing lighthouse. This will ensure that the light "spill" emanating from the new lighthouse will be confined primarily towards the shoreline. However, this effect will not be significant in relation to the existing lighthouse as the proposed new lighthouse is proposed to be located in close proximity to the existing lighthouse. In terms of the nautophone, there are no upgrades or constructions planned as part of the Basic Assessment process. However, the CSIR will advise Transnet to consider relocating the

			nautophone as part of their ongoing management practices on the lighthouse. The intent would be to assist sailors to get the full benefit nautophone whilst aiming to minimise the noise impacts for people residing on the landside. Additionally, the construction of the concrete tower adjacent to the existing nautophone will assist in absorbing some of the sound reverberations and lessen the noise impacts for people residing on land. The explosives booth will be left untouched as part of the new lighthouse construction. Our research indicates that the existing aluminium lattice structure was commissioned in 1979 and does not require a permit to be decommissioned according to the National Heritage Resources Act as it is less than 60 years. The existing lean to structure attached to the staff quarters on site may potentially be decommissioned as part of the proposed project. We understand that this structure is less than 60 years old also. However, this will be confirmed as part of our site visits and additional research on the age of the building.
		KM	All surrounding residents have been identified as potential interested and affected parties during the project announcement phase and have been included in our database – including the church. Notice of the proposed development was circulated to these interested and affected parties in the form of the Background Information Document, thus allowing active participation and comment on the basic assessment process. All comments received will be documented in the Basic Assessment report.
JB	In addition, when driving down from Alexander Bay, the reflection of the light from the existing lighthouse is almost blinding and can be dangerous for people driving along that route. How will this be addressed in the new lighthouse?	KM	Besides blanking off the lights on the landward side, the new lighthouse will be constructed closer to the shoreline as compared to the existing lighthouse. This should reduce the light "spill" emanating from the new lighthouse as the light will be confined more towards the shoreline. However, this effect will not be significant as the proposed new lighthouse will be constructed in close proximity to the existing lighthouse.

DK/JB	Provided that these issues of noise and lights are addressed, we have no objection with the proposed new lighthouse. In fact, we believe that the proposed lighthouse should be built so that will help attract future developments along the west coast. We support the project.	CSIR	Noted with thanks.
KM	Thanked DK and JWB for taking the time to attend and the meeting was closed.		

APPENDIX F: Impact Assessment

Alternative A (Preferred Alternative) – Construction Phase Direct, Indirect and Cumulative Impacts

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status Without Mitigation	Significance and Status With Mitigation
Site clearing for the proposed lighthouse – including the demolitions of: ➢ Lean-to structure on ERF 335; and ➢ Existing Aluminium Lattice Lighthouse on ERF 44.	**CONSTRUCTION PHASE – DIRECT IMPACTS**									
	Loss of archaeological heritage resources – lean-to structure older than 60 years.	Local	Low	Permanent	High	High	High	High	Medium Negative	Low Positive
	Runoff and erosion – once lay down area is cleared in preparation for excavations of foundation area.	Site specific	Low	Short term	High	Low	Low	Medium	Low Negative	Low Negative
	Waste – domestic waste, demolishing waste and hazardous waste (incl. concrete rubble, metal, sewage and corrugated asbestos sheeting).	Site specific	Medium	Short term	High	Medium	High	Medium	Medium Negative	Low Negative
	Soil contamination - through diesel, petrol and contaminant spills from construction vehicles/equipment.	Site specific	Medium	Short term	Medium	Medium	Medium	Medium	Medium Negative	Low Negative
	Air quality – dust production and pollution from construction equipment and vehicles.	Local	Medium	Short term	Low	High	High	Medium	Medium Negative	Low Negative
	Noise – as a result of	Local	High –	Short term	High	High	High	Medium	Medium	Low

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status	Significance and Status
	diesel powered equipment such as the generators used for powering equipment and activities associated with the hauling of construction trucks.		for sensitive receptors close to site						Negative	Negative
	Job creation – through employment and business opportunities.	Regional	Medium	Short term	Not applicable	Not applicable	High	High	Low Positive	Medium Positive
	CONSTRUCTION PHASE – INDIRECT IMPACTS									
	Public safety – impacts on public safety especially due to increased construction vehicles.	Local	Medium	Short term	Not applicable	Not applicable	Medium	Low	Medium Negative	Low Negative
	Secondary benefits to community – through accommodation for construction workers, transport of workers to and from the site, and support services such as concrete and building material suppliers.	Regional	High	Short term	Not applicable	Not applicable	High	Low	Medium Positive	High Positive
	Road damage – through movement of construction vehicles.	Regional	Medium	Permanent	High	Low	Medium	Medium	Medium Negative	Low Negative
	CONSTRUCTION PHASE – CUMULATIVE IMPACTS									

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status	Significance and Status
	Job creation – increased job opportunities through the development acting in conjunction with other developments in the area.	Regional	Low	Short term	Not applicable	Not applicable	High	High	Low Positive	Low Positive
	Air quality – dust and air pollution from construction activities in conjunction with other activities/vehicles in the vicinity.	Regional	Medium	Short term	Low	High	High	Low	Medium Negative	Low Negative
	Waste – increased waste material on site and at landfills.	Regional	Medium	Short term	Medium	Medium	High	Medium	Medium Negative	Low Negative
Excavations for: ➢ Lighthouse foundation; and ➢ A 220 V underground cable extending from the engine room on ERF 45 to the proposed lighthouse on ERF 335.	**CONSTRUCTION PHASE – DIRECT IMPACTS**									
	Loss of archaeological heritage resources – through destruction, disturbance or sealing-in of palaeontological/ archaeological occurrences exposed on the ground or buried beneath the surface during excavations.	Site specific	Low	Permanent	High	Low	Low	High	Low Negative	Low Negative
	Runoff and erosion – through excavations and soil stockpiles.	Site specific	Medium	Short term	High	Low	Low	Medium	Medium Negative	Low Negative

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status	Significance and Status
	Waste – domestic waste and sewage from temporary construction toilets.	Site specific	Medium	Short term	High	Medium	High	Medium	Medium Negative	Low Negative
	Soil contamination – possible soil contamination during excavation activities through diesel, petrol and contaminant spills from construction vehicles/equipment.	Site specific	Medium	Short term	Medium	Medium	High	Medium	Medium Negative	Low Negative
	Air quality – dust production and pollution from construction equipment and vehicles during excavations.	Local	Medium	Short term	Low	High	High	Medium	Medium Negative	Low Negative
	Noise – through diesel powered equipment such as the generators used for powering equipment and activities associated with the hauling of construction trucks.	Local	High – for sensitive receptors close to site	Short term	High	High	High	Medium	Medium Negative	Low Negative
	Road damage – through excavation activities on Beach Road for the underground 220 V cable.	Site specific to local	Medium	Permanent	High	Low	Medium	Medium	High Negative	Low Negative
	CONSTRUCTION PHASE – INDIRECT IMPACTS									

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status	Significance and Status
	Road damage – due to construction vehicle movement.	Regional	Medium	Permanent	High	Low	Medium	Medium	Medium Negative	Low Negative
	CONSTRUCTION PHASE – CUMULATIVE IMPACTS									
	Air quality – dust and air pollution from construction activities in conjunction with other activities/vehicles in the vicinity.	Regional	Medium	Short term	Low	High	High	Low	Medium Negative	Low Negative
Construction of concrete lighthouse tower, lantern house, underground cabling and commissioning.	**CONSTRUCTION PHASE – DIRECT IMPACTS**									
	Noise – due to diesel powered equipment such as the generators used for powering equipment and activities associated with the hauling of construction trucks.	Local	High – for sensitive receptors close to site	Short term	High	High	High	Medium	Medium Negative	Low Negative
	Visual – through construction operations and equipment and vehicles which could pose a visual intrusion on existing views of sensitive visual receptors in the region.	Local	High – for sensitive receptors close to site	Short term	High	Low	High	High	Medium Negative	Low Negative
	Air quality – reduction in local air quality through dust production and pollution from	Local	Medium	Short term	Low	High	High	Medium	Medium Negative	Low Negative

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status	Significance and Status
	construction equipment and vehicles during placement of the tower.									
	CONSTRUCTION PHASE – INDIRECT IMPACTS									
	Road damage – due to construction vehicle movement.	Regional	Medium	Permanent	High	Low	Medium	Medium	Medium Negative	Low Negative
	CONSTRUCTION PHASE – CUMULATIVE IMPACTS									
	Air quality – dust and air pollution from construction activities in conjunction with other activities/vehicles in the vicinity.	Regional	Medium	Short term	Low	High	High	Low	Medium Negative	Low Negative

Alternative A (Preferred Alternative) – Operational Phase Direct, Indirect and Cumulative Impacts

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status Without Mitigation	Significance and Status With Mitigation
Operation of lighthouse.	**OPERATIONAL PHASE – DIRECT IMPACTS**									
	Visual – Intrusion of a concrete lighthouse on views of sensitive visual receptors and the nightscape of the region.	Local	Medium	Permanent	High	Medium	High	High	Medium Negative	Medium Negative
	Economics – the operation of the lighthouse will provide	Site specific	Low	Permanent	Not applicable	Not applicable	High	High	Low Positive	Low Positive

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status	Significance and Status
	one permanent post.									
	Secondary effects – through (i) future development of Port activities, and (ii) improved safety for mariners.	Local	High	Permanent	Not applicable	Not applicable	High	Medium	High Positive	High Positive
	OPERATIONAL PHASE – INDIRECT IMPACTS									
	The new tower will be aesthetically pleasing and will add to the country's rich lighthouse heritage.	Local to Regional	High	Permanent	High	Low	Medium	Medium	Medium Positive	High Positive
	OPERATIONAL PHASE – CUMULATIVE IMPACTS									
	None.	-	-	-	-	-	-	-	-	-
Use of vehicle during maintenance of lighthouse.	**OPERATIONAL PHASE – DIRECT IMPACTS**									
	Health and Safety – due to maintenance work required at high heights with specialised equipment.	Site specific	Medium	Short term	High	Medium	High	Medium	Medium Negative	Low Negative
	OPERATIONAL PHASE – INDIRECT IMPACTS									
	Road damage – through use of maintenance vehicles.	Local	Low	Short term	High	Low	Medium	Medium	Low Negative	Low Negative
	OPERATIONAL PHASE – CUMULATIVE IMPACTS									
	None.	-	-	-	-	-	-	-	-	-

Alternative A (Preferred Alternative) – Decommissioning Phase Direct, Indirect and Cumulative Impacts:

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status Without Mitigation	Significance and Status With Mitigation
Disassemble lighthouse according to regulatory requirements.	**DECOMMISSIONING PHASE – DIRECT IMPACTS**									
	Job creation – creation of employment for all decommissioning activities e.g. demolitions.	Regional	Medium	Short term	High	Medium	High	High	Low Positive	Medium Positive
	Waste – domestic and demolishing waste including sewage from temporary toilets.	Site specific	Medium	Short term	High	Medium	High	Medium	Medium Negative	Low Negative
	Noise – noise impacts as a result of diesel powered equipment such as the generators used for powering equipment and activities associated with the operation of construction vehicles required for decommissioning activities.	Local	High – for sensitive receptors close to site	Short term	High	High	High	Medium	Medium Negative	Low Negative
	Air quality – reduction in local air quality through dust production and pollution from construction equipment and vehicles during decommissioning activities.	Local	Medium	Short term	Low	High	High	Medium	Medium Negative	Low Negative
	Soil contamination – possible soil contamination during decommissioning activities through diesel, petrol and	Site specific	Medium	Short term	Medium	Medium	High	Medium	Medium Negative	Low Negative

Activity	Impact Description	Spatial Extent	Intensity	Duration	Reversibility	Irreplaceability	Probability	Confidence	Significance and Status	Significance and Status
	contaminant spills from construction vehicles/equipment.									
	DECOMMISSIONING PHASE – INDIRECT IMPACTS									
	None.	-	-	-	-	-	-	-	-	-
	DECOMMISSIONING PHASE – CUMULATIVE IMPACTS									
	None.	-	-	-	-	-	-	-	-	-

No-go alternative (compulsory)

Should this project not go ahead, there will be no construction of the proposed lighthouse within the proposed site. This will result in no impacts occurring on the biophysical environment including soils, air quality etc. and will result in low or no visual impact. However, this will result in a situation whereby a new lighthouse cannot be erected to replace the existing lighthouse which has reached the end of its lifespan. This is an undesirable option as there will be negative implications on safety from a marine perspective, as well as lost opportunities for the economic development of the local community.

APPENDIX G: Environmental Management Programme (EMPr)

CONTENTS

1 INTRODUCTION

This Draft Environmental Management Programme (EMPr) is prepared as part of the requirements of the EIA Regulations promulgated under the National Environmental Management Act (NEMA, Act 107 of 1998) as amended 2010. The EMPr is to be submitted to the National Department of Environmental Affairs (DEA) as part of the Application for Environmental Authorisation for the proposed Transnet Freight Rail Port Nolloth Lighthouse (DEA Reference No. 14/12/16/3/3/1/671). This Draft EMPr is made available for public comment, as part of the Draft Basic Assessment (BA) Report. Following the incorporation of comments from stakeholders, the EMPr is intended as a living document and should continue to be updated regularly.

1.1 Project Description

Transnet Freight Rail (RME) (hereafter referred to as TFR), a division of Transnet Ltd., proposes to construct a lighthouse on ERF 335 in Port Nolloth, Northern Cape. The 21 digit Surveyor General code for the property is C05300100000033500000. As part of the new lighthouse construction, an existing aluminium lattice lighthouse structure on the adjacent ERF 44 will be demolished as it has reached the end of its life span and needs to be replaced. The proposed new concrete lighthouse structure will be longer lasting and will more importantly serve as a better day-marker for mariners, and will direct them to the port safely. The existing lighthouse on ERF 44 was erected in 1979 and replaced an earlier cast iron structure commissioned in 1909.

2 APPROACH TO PREPARING THE DRAFT EMPR

A typical EMPr takes the planning and design, construction, operational and decommissioning phases of a project into account. The EMPr is compiled as part of the Basic Assessment (BA) process and is an annexure to the project report.

This EMPr has been compiled by the CSIR and the specialists on the team. The details of the Environmental Assessment Practitioner (Mr Ismail Banoo) are provided in Appendix H of the Draft Basic Assessment Report.

2.1 Compliance with EIA Legislation

Table 1: Compliance with Section 33 of the EIA Regulations (Government Gazette 18 June 2010, as amended) and Section 24N of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

Requirements of Section 33 of the EIA Regulations (Government Gazette 18 June 2010, as amended) and section 24N of the National Environmental Management Act, 1998 (Act No. 107 of 1998)	Where it is included in this Draft EMPr
(i) the person who prepared the environmental management programme; and (ii)the expertise of that person to prepare an environmental management programme;	Section 2
(b) information on any proposed management or mitigation measures that will be taken to address the environmental impacts that have been identified in a report contemplated by these Regulations, including	Mitigation objectives and management actions columns in Sections 5 to 10.

Requirements of Section 33 of the EIA Regulations (Government Gazette 18 June 2010, as amended) and section 24N of the National Environmental Management Act, 1998 (Act No. 107 of 1998)	Where it is included in this Draft EMPr
environmental impacts or objectives in respect of - (i) planning and design; (ii) pre-construction and construction activities; (iii) operation or undertaking of the activity; (iv) rehabilitation of the environment; and closure, where relevant.	
(c) a detailed description of the aspects of the activity that are covered by the draft environmental management programme;	Section 1.1 (and Section 1 of the Draft BAR)
(d) an identification of the persons who will be responsible for the implementation of the measures contemplated in paragraph (b);	Section 4 and Monitoring-Responsibility column of the Sections 5 to 10.
(e) proposed mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon;	Monitoring-Methodology column of the Sections 5 to 10.
(f) as far as is reasonably practicable, measures to rehabilitate the environment affected by the undertaking of any listed activity or specified activity to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development, including, where appropriate, concurrent or progressive rehabilitation measures.	Section 5 to Section 10 of the Draft EMPr.
(g) a description of the manner in which it intends to - (i) modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) remedy the cause of pollution or degradation and migration of pollutants; (iii) comply with any prescribed environmental management standards or practices; (iv) comply with any applicable provisions of the Act regarding closure, where applicable; (v) comply with any provisions of the Act regarding financial provisions for rehabilitation, where applicable;	Section 5 to Section 10 of the Draft EMPr.
(h) time periods within which the measures contemplated in the environmental management programme must be implemented;	Monitoring-Frequency column of the Sections 5 to 10.
(i)the process for managing any environmental damage, pollution, pumping and treatment of extraneous water or ecological degradation as a result of undertaking a listed activity.	Management actions column of the Sections 5 to 10.
(j) an environmental awareness plan describing the manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work; and risks must be dealt with in order to avoid pollution or the degradation of the environment;	Section 10 of the Draft EMPr.
(k) where appropriate, closure plans, including closure objectives.	Not applicable (a closure plan will need to be prepared if and when the proposed project is decommissioned, in accordance with best practice and legislative requirements applicable at the time).

2.2 Content of the Draft EMPr

Each section of the Draft EMPr is divided into four phases of the project cycle:
(1) Design Phase;
(2) Construction Phase;
(3) Operational Phase; and
(4) Decommissioning Phase.

The Draft EMPr includes the findings and recommendations of the BA Process and Specialist Studies. However, the Draft EMPr is considered a live document and must be updated with additional information or actions during the design, construction and operational phases.

The Draft EMPr follows an approach of identifying an over-arching goal and objectives, accompanied by management actions that are aimed at achieving these objectives. The management actions are presented in a table format in order to show the links between the goal and associated objectives, actions, responsibilities, monitoring requirements and targets. The management plans for the design, construction, operation and decommissioning phases consist of the following components:

- **Impact:** The potential positive or negative impact of the development that needs to be enhanced, mitigated or eliminated;
- **Mitigation/Management Action:** The actions needed to achieve the objectives of enhancing, mitigating or eliminating impacts;
- **Monitoring:** The key monitoring actions required to check whether the objectives are being achieved, taking into consideration methodology, frequency and responsibility.

The requirements of DEA for the environmental management programme are as follows:

DEA Requirements	Relevant Section in the EMPr
An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.	3
An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure the continuous monitoring and removal of alien species is undertaken.	N/A The site is fully transformed with no vegetation.
A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site and in consultation with the ECO and be implemented prior to commencement of the construction phase.	N/A The site is fully transformed with no vegetation.
A re-vegetation and rehabilitation plan to be implemented during the construction and operation of the facility including timeframes for the restoration which must indicate rehabilitation within the shortest possible time after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.	N/A The site is fully transformed with no vegetation.
An open space management plan to be implemented prior to construction and operation of the facility.	N/A The site is fully transformed with no nearby

	areas designated as open space.
A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimise impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built up areas so as not to disturb existing retail and commercial operations.	5
A storm water management plan to be implemented during construction and operation of the facility. The plan must ensure compliance with applicable regulation and prevent off site mitigation of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.	6
An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.	7
An effective monitoring system to detect and leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.	8

2.3 Goal for Environmental Management

The overall goal for environmental management for the Transnet Freight Rail Port Nolloth Lighthouse project is to construct and operate the project in a manner that:

- Minimises the ecological footprint of the project on the local environment;
- Minimises impacts on fauna and flora;
- Facilitates harmonious co-existence between the project and other land uses in the area; and
- Contributes to the environmental baseline and understanding of environmental impacts of the development in Port Nolloth.

3 DRAFT SITE LAYOUT AND SENSITIVITY MAP

The draft layout for the various components of the project is shown in Figure 1 below. Figure 2 shows the environmental sensitivities identified as part of the assessment. Full scale (A3) maps are included Appendix A of the Draft BAR.

Figure 1 Draft layout for the Transnet Port Nolloth Lighthouse Project

Figure 2 Environmental Sensitivity Map of the Development Site

4 ROLES AND RESPONSIBILITIES

For the purposes of the EMPr, the generic roles that need to be defined are those of the:

(1) Project Developer,
(2) Transnet's Environmental Officer,
(3) Environmental Control Officer (ECO),
(4) Lead Contractor; and
(5) Operations Manager.

Note: The specific titles for these functions will vary from project to project. The intent of this section is to give a generic outline of what these roles typically require.

4.1 Project Developer

The Project Developer (Transnet) is the 'owner' of the project and as such is responsible for ensuring that the conditions of the environmental authorization issued in terms of NEMA (should the project receive such authorization) are fully adhered to, as well as ensuring that any other necessary permits or licenses are obtained and complied with. It is expected that the Project Developer will appoint the ECO, the Construction Manager and the Operations Manager.

4.2 Transnet's Environmental Officer

Transnet's Environmental Officer is responsible for conducting the day-to-day tasks required to ensure that the Environmental Authorisation and EMPr, as well as any permits and licenses are correctly implemented on the construction site.

Note: Should the proposed project be granted environmental authorization from the National Department of Environmental Affairs, Transnet National Ports Authority (TNPA) will take over the implementation of the project from Transnet Freight Rail (TFR), who is the applicant. As such, the appointment of an Environmental Officer will be fulfilled by TNPA.

4.3 Environmental Control Officer

The Project Developer's Environmental Control Officer (ECO) will be responsible for updating the environmental management programme (EMPr) based on the final EMPr report. The Environmental Control Officer is also referred to as the Contractor's Environmental Officer. Responsibility of the ECO include overseeing the implementation of the EMPr during the construction and operations phases, and for monitoring environmental impacts, record-keeping and updating of the EMPr as and when necessary. As well as a responsibility for implementing the EMPr, the ECO is also responsible for monitoring compliance with the conditions of the Environmental Authorisation that may be issued to Transnet Limited.

During construction, the Project Developer's ECO will be responsible for the following:

- Meeting on site with the Construction Manager prior to the commencement of construction activities to confirm the construction procedure and designated activity zones;
- Weekly or bi-weekly (i.e. every two weeks) monitoring of site activities during construction to ensure adherence to the specifications contained in the EMPr, using a monitoring checklist that is to be prepared by the ECO at the start of the construction phase;
- Preparation of the monitoring report based on the weekly or bi-weekly site visit;

- Reporting of any non-conformances within 48 hours of identification of such non-conformance to the relevant agents; and
- Conducting an environmental inspection on completion of the construction period and 'signing off' the construction process with the Construction Manager.

During operation, the Project Developer's ECO will be responsible for:
- Overseeing the implementation of the EMPr for the operation phase;
- Ensure that the necessary environmental monitoring takes place as specified in the EMPr; and
- Update the EMPr and ensure that records are kept of all monitoring activities and results.

During decommissioning, the ECO will be responsible for:
- Overseeing the implementation of the EMPr for the decommissioning phase; and
- Conducting an environmental inspection on completion of decommissioning and 'signing off' the site rehabilitation process.

Note: Should the proposed project be granted environmental authorization from the National Department of Environmental Affairs, Transnet National Ports Authority (TNPA) will take over the implementation of the project from Transnet Freight Rail (TFR), who is the project applicant. As such, the appointment of an Environmental Control Officer will be fulfilled by TNPA.

4.4 Lead Contractor

The Lead Contractor will be responsible for the following:
- Overall construction programme, project delivery and quality control for the construction for the proposed lighthouse project;
- Overseeing compliance with the Health, Safety and Environmental Responsibilities specific to the project management related to project construction;
- Promoting total job safety and environmental awareness by employees, contractors and sub-contractors and stress to all employees and contractors and sub-contractors the importance that the project proponent attaches to safety and the environment;
- Ensuring that each subcontractor employ an ECO (or have a designated ECO function) to monitor and report on the daily activities on-site during the construction period;
- Ensuring that safe, environmentally acceptable working methods and practices are implemented and that sufficient plant and equipment is made available properly operated and maintained, to facilitate proper access and enable any operation to be carried out safely;
- Meeting on site with the Project Developer's ECO prior to the commencement of construction activities to confirm the construction procedure and designated activity zones;
- Ensuring that all appointed contractors and sub-contractors are aware of this EMPr and their responsibilities in relation to the plan; and
- Ensuring that all appointed contractors and sub-contractors repair, at their own cost, any environmental damage as a result of a contravention of the specifications contained in the EMPr, to the satisfaction of the Project Developer's ECO.

At the time of preparing this draft EMPr, the Lead Contractor is still to be appointed by the proponent.

4.5 Operations Manager

The Operations Manager will be responsible for the following:
- Operation of the lighthouse facility;
- Required maintenance of the lighthouse facility; and

- Ensuring that the specified environmental monitoring programmes during operations are undertaken effectively and that the findings are analysed and applied.

5 TRAFFIC MANAGEMENT PLAN

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
a) CONSTRUCTION PHASE					
5.1. Increase in traffic volumes during construction (staff and materials).	Reduce the volume of trucks and private cars on roads during construction.	5.1.1. Encourage the use of public transport (buses and/or minibus taxis) to convey construction personnel to the site as this will reduce the volume of private cars on the road network. A minibus transport service should be arranged for workers by the appointed contractor during construction. The contractor must check that the contracted minibus service is provided as per agreement.	Appointed inspectors must record arrival and departure times at designated pick-up points as well as number of workers using minibuses.	Once a week on a randomly selected day.	Appointed Contractor.
		5.1.2. Encourage the use of large vehicles or truck-trailer combinations for ready-mix concrete/batch plant material delivery in order to reduce the number of trucks on the roads. The TNPA construction project manager should request contractors to arrange deliveries in larger vehicles where possible.	Construction monitoring staff to record number and size of vehicles making these deliveries to site.	Record daily and report effectiveness at weekly site meetings with contractors.	TNPA Construction Project Manager.
		5.1.3. Overloading of vehicles should be avoided to limit the impact on the structural capacity of	TNPA Health and Safety Officer to perform visual inspection of vehicles	Random visual inspection of vehicles weekly	TNPA Health and Safety Officer.

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		the roads. TNPA Health and Safety Officer to monitor heavy vehicles for overloading during construction activities. Random visual inspection of vehicles to be undertaken during construction.	during construction.	by the TNPA Health and Safety Officer during the construction phase.	
5.2. Accelerated degradation of road structure due to construction traffic.	Reduce degradation of road structure during construction.	5.2.1. Overloading of vehicles should be avoided to limit the impact on the structural capacity of the roads. TNPA Health and Safety Officer to monitor heavy vehicles for overloading during construction activities. Random visual inspection of vehicles to be undertaken during construction.	TNPA Health and Safety Officer to perform visual inspection of vehicles during construction.	Random visual inspection of vehicles weekly by the TNPA Health and Safety Officer during the construction phase.	TNPA Health and Safety Officer.
5.3. Increased number of road accidents due to increased traffic during construction.	Reduce number of road accidents due to increased traffic during construction.	5.3.1. Well maintained vehicles should be used together with well trained drivers during the construction phase of the proposed project. Vehicle maintenance and driver competency should be monitored through the implementation of a Health and Safety Management Plan. The Plan could specify the need for proof of driver competency as well as the need for vehicle checks to ensure that vehicles are roadworthy and hence, do	TNPA Health and Safety Officer to perform random checks of driver licenses and conduct random visual inspections of construction vehicles for roadworthiness.	Random visual inspection of vehicles weekly by the TNPA Health and Safety Officer during the construction phase.	TNPA Health and Safety Officer.

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		not pose a safety risk. The Contractors must ensure that construction vehicles are roadworthy, properly serviced and maintained.			
b) OPERATIONAL PHASE					
5.4. Increased traffic volumes during servicing and repairs (staff).	Reduce the volume of private cars on the road network during operation.	5.4.1. The use of public transport to convey personnel to the site should be encouraged.	Engage with relevant parties to encourage the use of public transport during operations.	Prior to operational phase commences.	Project Developer (TNPA).
5.5. Increased risk of road accidents due to increased traffic during services and repairs.	Reduce incidents of road accidents due to increased operation/maintenance traffic flows.	5.5.1. Well maintained vehicles should be used together with well trained drivers during the operational phase of the proposed project. No heavy vehicle traffic will be generated during the operation of the Lighthouse.	During operation, Transnet security staff to visually check roadworthiness (as part of protocol).	As part of protocol.	Transnet Security Staff.

6 STORM WATER MANAGEMENT PLAN (INCLUDING MEASURES TO PROTECT HYDROLOGICAL FEATURES)

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
a) DESIGN PHASE					
6.1. Impact of the project if a detailed Storm Water Management Plan is not correctly prepared.	To limit the effect of uncontrolled storm water run-off from developed areas onto natural areas.	6.1.1. Design and compile a Storm Water Management Plan.	Identify potential sources of pollution and design methods of keeping "clean" and "dirty" water separate.	During the design phase.	Project Developer (TNPA) and ECO.
b) CONSTRUCTION PHASE					
6.2. Impact of contaminated storm water discharge into the environment.	To prevent contaminated storm water from entering into and adversely impacting on surrounding ecosystems. To apply best practice principles in managing risks to storm water pollution.	6.2.1. A Storm Water Management Method Statement must be developed for the construction phase by each Contractor.	Compile a Storm Water Management Method Statement.	Prior to construction.	Contractor.
		6.2.2. Install silt fencing at the perimeters of actively disturbed areas (as needed).	Monitor activities and record and report non-compliance.	As needed during the construction phase.	TNPA Environmental Officer and ECO.
		6.2.3. Reinforce soil slopes to minimise erosion during rehabilitation (as needed, and once construction in a specific area has ceased).			
		6.2.4. Divert storm water runoff from uncovered bulk construction waste piles to suitable collection systems.			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		6.2.5. Perform periodic inspections and maintenance of soil erosion measures and storm water control structures.			
6.3. Impact of changes to groundwater quality.	To reduce the impact of construction activities on groundwater quality.	6.3.1. Fuels used for construction must be stored safely on site and surrounded by bunds. Chemical storage containers must be regularly inspected so that any leaks are detected early.	Monitor activities and record and report non-compliance.	Daily.	TNPA Environmental Officer and Contractor.
		6.3.2. All stockpiles must be protected from erosion and stored on flat areas where run-off will be minimised.			
c) OPERATIONAL PHASE					
6.4. Stormwater discharge into the environment during operations.	To protect soil resources and prevent soil erosion.	6.4.1. Install and maintain litter traps.	Monitor activities and record and report non-compliance.	On-going.	Project Developer (TNPA).
		6.4.2. As far as reasonably possible, capture and contain "dirty" stormwater for appropriate disposal/discharge.			
6.5. Impact of changes to groundwater quality.	To reduce the impact of changes on groundwater quality.	6.5.1. Erosion and sedimentation into the surrounding environment must be minimised through effective stabilisation (such as silt traps).	Monitor activities and record and report non-compliance.	As needed during the operation phase.	TNPA Environmental Officer/ Environmental Manager.
d) DECOMMISSIONING PHASE					
6.6. Contaminated stormwater discharge to	To prevent the contamination of stormwater by	6.6.1. Implement Management Actions as stipulated for the construction phase.	ECO must monitor activities and record and report non-compliance.	On-going	TNPA Environmental Officer/

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
environment	uncontrolled release of contaminated water.				Environmental Manager, Contractor and ECO

7 EROSION MANAGEMENT PLAN

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	Frequency	Responsibility
a) CONSTRUCTION PHASE					
7.1. Increased wind erosion and resultant deposition of dust.	Prevent wind erosion and resultant deposition of dust on the surrounding indigenous vegetation.	7.1.1. Sand, stone and cement are to be stored in demarcated areas, and are covered or sealed to prevent wind erosion and resultant deposition of dust on the surrounding indigenous vegetation.	Monitor activities and record and report non-compliance.	Monthly	Contractor and ECO/ TNPA Environmental Officer
b) OPERATIONAL PHASE					
7.2. Loss of natural vegetation in development footprint area and resulting impacts on species of special concern.	Prevent loss of natural vegetation through erosion.	7.2.1. The use of silt fences (or suitable measures) must be implemented in areas that are susceptible to erosion. Other erosion control measures that can be implemented are as follows: 1) Brush packing with cleared vegetation, 2) Planting of vegetation, 3) Hydro seeding/hand sowing. All erosion control mechanisms need to be regularly evaluated and maintained.	Monitor efficiency of erosion control measures.	Weekly or monthly	TNPA Environmental Officer
c) DECOMMISSIONING PHASE					
7.3. No specific impacts are associated with the decommissioning phase other than those from the operational phase that will still be relevant for the duration of the decommissioning phase due to on-going occupation of the area. Rehabilitation must be executed in such a manner that surface run-off will not cause erosion of disturbed areas. Monitoring: Final external audit of area to confirm that area is rehabilitated to an acceptable level (once off event to be conducted by ECO).					

8 INITIAL HAZARDOUS SUBSTANCES LEAKAGE OR SPILLAGE MONITORING SYSTEM

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
a) CONSTRUCTION PHASE					
8.1. Contamination of soil and risk of damage to vegetation and/or fauna through spillage of fuels and oils.	To control and eliminate fuel and oil spillages which may result in soil contamination and damage to vegetation and/or fauna.	8.1.1. Contractor to compile a Method statement for refuelling activities under normal and emergency situations.	Monitor the handling and storage of fuels and oils, and monitor if spillages have taken place as instructed.	Daily.	TNPA Environmental Officer and Contractor.
		8.1.2. Monitor construction equipment and machinery daily to ensure that no fuel spillage takes place.			
		8.1.3. Spilled fuel, oil or grease must be retrieved where possible, and the contaminated soil removed, cleaned and replaced.			
		8.1.4. Contaminated soil must be collected by the Contractor (under observation of TNPA Environmental Officer) and disposed of at a registered waste facility designated for this purpose.			
		8.1.5. Spilled fuel, oil or grease must be retrieved where possible, and the contaminated soil removed, cleaned and replaced.			
		8.1.6. Portable bioremediation kit (to remedy chemical spills) must be kept on site and used as required.			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
b) OPERATIONAL PHASE					
8.2. Impacts due to solid and liquid wastes disposed of on the site during operation phase.	Prevent environmental impacts as a result of the operational phase such as pollution.	8.2.1. All operation waste to be removed from the site. 8.2.2. All liquid waste or spills (used oil, paints, lubricating compounds and grease from maintenance vehicles) to be packaged and disposed appropriately at a registered landfill site. 8.2.3. Adequate containers for the cleaning of equipment and materials (paint, solvent) must be provided in order to avoid spillages.	Waste removal and disposal to be monitored throughout operation.	Monthly	TNPA Environmental Officer
c) DECOMMISSIONING PHASE					
8.3. No specific impacts are associated with the decommissioning phase other than those from the operational phase that will still be relevant for the duration of the decommissioning phase due to on-going occupation of the area.					

9 SPECIFIC PROJECT RELATED ENVIRONMENTAL IMPACTS (OUTSIDE OF THOSE COVERED IN OTHER MANAGEMENT PLANS)

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
a) CONSTRUCTION PHASE					
9.1. Impact on archaeological heritage as a result of demolishing the existing lean-to structure and archaeological/palaeontological finds during excavations.	Prevent the damage of materials of heritage significance.	9.1.1. No specific mitigation actions can be applied for removal of the lean-to structure. Although this structure is of low heritage significance, a permit must be obtained from SAHRA NC prior to demolishing the structure as it is older than 60 years.	Monitor site during excavations.	Once off during excavations	TNPA Environmental Officer and ECO
		9.1.2. All major bedrock excavations should be examined at regular intervals for fossil material by the Environmental Control Officer during the construction phase. In addition, Any palaeontological/ archaeological heritage uncovered during the construction must result in stopping construction activities and immediately reporting the findings to the SAHRA APM Unit (Katie Smuts/Colette Scheermeyer 021 462 4502).			
9.2. Visual impacts during the construction phase. Construction activities (and equipment and vehicles) will be visible by users of Beach Road.	Reduce visual impacts during the construction phase.	9.2.1. Project developers should demarcate construction boundaries to minimise areas of surface disturbance.	Monitor activities and record and report non-	Weekly	TNPA Environmental Officer and ECO
		9.2.2. The contractor should maintain good			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		housekeeping on site to avoid litter and minimise waste.	compliance.		
		9.2.3. Rehabilitation of temporarily cleaned areas should start as soon as possible.			
		9.2.4. Control measures such as mulch should be spread over soil disturbances to aid rehabilitation and dust suppression.			
		9.2.5. Night lighting of the construction site should be minimised within the requirements of safety and efficiency.			
9.3. Air Quality Impact: Generation of dust as a result of site clearing and earthworks.	Reduce the generation of dust during construction.	9.3.1. Vehicles must only be permitted in demarcated areas or on existing roads.	Monitor activities and record and report non-compliance.	Monthly	ECO and TNPA Environmental Officer
		9.3.2. It is recommended that water be sprayed on access roads.			
		9.3.3. There should be strict speed limits on access roads with dusty surfaces in order to prevent dust liberation into the atmosphere.			
9.4. Generation of noise as a result of construction activities and the use of diesel powered equipment and machinery (required for earthworks, compacting etc.), as well as construction vehicles.	Reduce noise impacts during construction.	9.4.1. All construction activities should be undertaken in accordance with daylight working hours between 07:00 and 17:00 on weekdays and 07:30 and 13:00 on Saturdays, with no construction activities taking place on Sundays and public holidays.	Monitor activities and record and report non-compliance.	Monthly	TNPA Environmental Officer
		9.4.2. All earth-moving vehicles and equipment must be serviced regularly to ensure proper functioning.			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		9.4.3. A complaints register must be made available so that any complaints can be logged and reported to the responsible person on site			
		9.4.4. Operations should meet the noise standard requirements of the Occupational Health and Safety Act (Act No 85 of 1993).			
9.5. Possible soil contamination during site clearing activities through diesel, petrol and contaminant spills from construction vehicles/equipment.	Prevent environmental impacts as a result of the hazardous waste spills.	9.5.1. Ensure vehicles are serviced regularly and are in good working condition.	Monitor activities and record and report non-compliance.	Monthly	TNPA Environmental Officer
		9.5.2. Implement good housekeeping including containment and immediate clean-up of any spillages, collection of chemical/oil wastes, and disposal at an appropriate hazardous waste facility.			
		9.5.3. Prevent, minimize, and control of the spills of hazardous waste by: ○ Providing adequate secondary containment for fuel storage and for the temporary storage of other fluids (e.g. lubricating oils, hydraulic fluids). ○ Using impervious surfaces for refuelling areas and other fluid transfer areas. ○ Training workers on the correct transfer and handling of fuels and chemicals and the response to spills. ○ Providing portable spill containment and clean-up			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		equipment on site and training in the equipment deployment.			
9.6. Generation of construction solid waste through construction activities and demolitions of the lean-to and existing aluminium lattice lighthouse.	Prevent environmental impacts as a result of the incorrect collection, handling and disposal of solid waste.	9.6.1. General waste bins must be made available for employees to use throughout the project site. General waste must be disposed off at an approved waste disposal facility and evidence of correct disposal must be kept.	Monitor activities and record and report non-compliance.	Weekly	TNPA Environmental Officer
		9.6.2. Building rubble and metal waste must be used, where possible, in construction – if this is not possible the rubble and metal waste must be disposed off at an appropriate site. All temporary soil stockpiles, litter and building waste must be removed on completion of construction activities without dumping in surrounding open areas.			
		9.6.3. The corrugated asbestos roof sheeting from the lean-to structure must be removed and disposed off in accordance with Section 21 of the Asbestos Regulations, 2001 (under the Occupational Health and Safety Act, 1993). Records of all waste being taken off site must be recorded and kept as evidence.			
		9.6.4. Contractors must be responsible for the maintenance of sewage waste from on site chemical toilets. Should any spills occur, the material must be			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		cleaned up immediately and disposed off appropriately. Chemical toilets on site during the construction activities must be cleaned and maintained on a weekly basis to minimise the potential of odours on site.			
9.7. Road damage through excavations for the 220 V underground cable and construction vehicle movement.	Prevent road damage through excavations/vehicle movement	9.7.1. Construction vehicles must follow strict speed limits on all access roads (40 km/hr in residential areas). 9.7.2. The contractor/proponent must ensure the repair of any damaged roads caused by the movement of construction vehicles or excavation activities.	Monitor activities and record and report non-compliance.	Weekly	TNPA Environmental Officer
9.8. Runoff and erosion: Increased runoff and erosion from site clearing, excavations for the lighthouse foundation and cabling to the engine room. The spatial extent of the exposed soil surface will be minimal owing to the limited development footprint. Includes erosion of soil stockpiles.	Minimise runoff and erosion during construction activities.	9.8.1. Keep exposed soil surfaces covered with mulch, straw, erosion control mats or any other means until plant cover is established or the surface covered by artificial means (e.g. concrete/tarring) as applicable. 9.8.2. Implement the stormwater management plan (Appendix G – Table 6). 9.8.3. Erosion damage to soil stockpiles must be prevented with soil conservation measures such as plastic sheeting, tarpaulins if applicable.	Monitor activities and record and report non-compliance.	Weekly	TNPA Environmental Officer

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
b) OPERATION PHASE					
9.9. Visual impacts of the concrete tower to sensitive receptors.	Reduce visual impacts during the operational phase.	9.9.1. Project developer should maintain the lighthouse exterior which will subsequently allow for an improved sense of place for Port Nolloth in general.	Monitor activities and record and report non-compliance.	Once-off prior to lighthouse operations	TNPA Environmental Officer and Contractor
c) DECOMMISSIONING PHASE					
9.10. Generation of solid waste through decommissioning activities.	Prevent environmental impacts as a result of the incorrect disposal of solid waste.	9.10.1. General waste bins must be made available for employees to use throughout the project site. General waste must be disposed off at an approved waste disposal facility and evidence of correct disposal must be kept.	Monitor activities and record and report non-compliance.	Weekly	TNPA Environmental Officer
		9.10.2. Building rubble must be reused, where possible – if this is not possible the rubble must be disposed off at an appropriate site. All temporary soil stockpiles, litter and rubble must be removed on completion of decommissioning activities without dumping in surrounding open areas.			
		9.10.3. Any hazardous waste must be removed and disposed off in a registered landfill site and the activities must be undertaken by an accredited services provider. Records of all waste being taken off site must be recorded and kept as evidence.			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		9.10.4. Contractors must be responsible for the maintenance of sewage waste from on site chemical toilets. Should any spills occur, the material must be cleaned up immediately and disposed off appropriately. Chemical toilets on site during the decommissioning activities must be cleaned and maintained on a weekly basis to minimise the potential of odours on site.			
9.11. Generation of noise as a result of decommissioning activities and the use of diesel powered equipment and machinery (required for earthworks, compacting etc.), as well as construction vehicles.	Reduce noise impacts during decommissioning.	9.11.1. All decommissioning activities should be undertaken in accordance with daylight working hours between 07:00 and 17:00 on weekdays and 07:30 and 13:00 on Saturdays, with no activities taking place on Sundays and public holidays.	Monitor activities and record and report non-compliance.	Monthly	TNPA Environmental Officer
		9.11.2. All earth-moving vehicles and equipment must be serviced regularly to ensure proper functioning.			
		9.11.3. Operations should meet the noise standard requirements of the Occupational Health and Safety Act (Act No 85 of 1993).			
9.12. Air Quality Impact: Generation of dust as a result of decommissioning activities.	Reduce the generation of dust during decommissioning.	9.12.1. Vehicles must only be permitted in demarcated areas or on existing roads.	Monitor activities and record and report non-	Monthly	ECO and TNPA Environmental Officer
		9.12.2. It is recommended that water be sprayed on access roads.			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		9.12.3. There should be strict speed limits on access roads with dusty surfaces in order to prevent dust liberation into the atmosphere.	compliance.		
9.13. Possible soil contamination during decommissioning activities through diesel, petrol and contaminant spills from construction vehicles/equipment.	Prevent environmental impacts as a result of the hazardous waste spills.	9.13.1. Ensure vehicles are serviced regularly and are in good working condition.	Monitor activities and record and report non-compliance.	Monthly	TNPA Environmental Officer
		9.13.2. Implement good housekeeping including containment and immediate clean-up of any spillages, collection of chemical/oil wastes, and disposal at an appropriate hazardous waste facility.			
		9.13.3. Prevent, minimize, and control of the spills of hazardous waste by: • Providing adequate secondary containment for fuel storage and for the temporary storage of other fluids (e.g. lubricating oils, hydraulic fluids). • Using impervious surfaces for refuelling areas and other fluid transfer areas. • Training workers on the correct transfer and handling of fuels and chemicals and the response to spills. • Providing portable spill containment and clean-up equipment on site and training in the equipment deployment.			

10 ENVIRONMENTAL AWARENESS PLAN

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
a) DESIGN PHASE					
10.1 Potential impacts resulting from the lack of overall compliance with the Environmental conditions of approval (issued by DEA).	Ensure compliance with all Environmental Conditions of Approval (issued by DEA).	10.1.1. Audit the implementation of the EMPr requirements. 10.1.2. Establish clear and transparent reporting of the activities undertaken with regard to all recommendations included in the EMP.	Audit report on compliance with actions and monitoring requirements.	Monthly.	ECO, Project Developer (TNPA), and Safety, Health and Environment Representative.
b) CONSTRUCTION PHASE					
10.2. Potential risk of fire due to construction activities or behaviour of staff on site during the construction phase.	Prevent fire on site resulting of workers smoking in undesignated areas.	10.2.1. Designate smoking areas where the fire hazard could be regarded as insignificant.	Adhoc checks to ensure workers are smoking only in designated areas.	Daily.	Contractor, TNPA Environmental Officer/ECO.
		10.2.2. Educate workers on the dangers of open and/or unattended fires.	Ensure fire safety requirements are well understood and respected by workers.	On-going.	
		10.2.3. Open fires must be prohibited. Appropriate fire safety training should also be provided to staff that are to be on the site for the duration of the construction phase.			
		10.2.4. Fire-fighting equipment must be made available at			

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
		various appropriate locations on the construction site.			
10.3. Inappropriate behaviour of civil contractors and sub-contractors during the construction phase.	Prevent unnecessary impacts on the surrounding environment by ensuring that contractors are aware of the requirements of the EMP.	10.3.1. All litter must be deposited in a clearly labelled, closed, animal-proof disposal bin in the construction area; particular attention needs to be paid to food waste.	Check compliance with specified conditions using a report card, and allocate fines when necessary.	Weekly or bi-weekly.	TNPA Environmental Officer/ Environmental Manager
		10.3.2. No person other than a qualified specialist or personnel authorised by TNPA, will disturb or remove plants outside the demarcated construction area.			
		10.3.3. No person other than a qualified specialist or personnel authorised by TNPA, will disturb animals on the site.			
		10.3.4. Educate workers on site about suitable behaviour on site and initiate environmental awareness. Staff must be informed that no trapping, snaring or feeding of any animal will be allowed.	Conduct environmental awareness training.	Once off and ensure that all new staff is inducted.	TNPA Environmental Officer/ Environmental Manager.

Impact	Mitigation Objectives	Management Actions	Monitoring		
			Methodology	*Frequency*	*Responsibility*
c) OPERATIONAL PHASE					
10.4. Ensure that workers are not smoking/ starting fires (i.e. cooking, heating purposes) in undesignated areas during operation phase.	Ensure an appropriate and efficient fire prevention/ management plan is implemented during the operation phase.	10.4.1. Designate smoking areas where the fire hazard could be regarded as insignificant.	Adhoc checks to ensure workers are smoking only in designated areas.	Monthly.	TNPA Environmental Officer/Environmental Manager.
		10.4.2. Educate workers on the dangers of open and/or unattended fires.			
		10.4.3. Ensure that adequate fire-fighting equipment is available and easily accessible on site.	Maintenance of fire-fighting equipment.	Yearly.	
10.5. Excessive generation of waste on site during operation phase.	Minimise the production of general waste.	10.5.1. Promote waste reduction, re-use, and recycling opportunities on site during the operation phase.	Monitor waste generation and collection throughout operation.	Monthly.	TNPA Environmental Officer/ Environmental Manager.
		10.5.2. Ensure an adequate and sustainable use of resources			
10.6. Non respect of waste management practices.	Ensure compliance with waste management legislation. Minimise pollution of the environment.	10.6.1. Control and implement waste management plans. Ensure that relevant legislative requirements are respected and adhered to.	Control of waste management practices throughout operation phase.	Monthly.	TNPA Environmental Officer/ Environmental Manager.
		10.6.2. Determine specific areas on site for temporary management of waste.			

APPENDIX H: Details of EAP and expertise

Appendix H.1: Curriculum Vitae of EAP – Ismail Banoo

Name of Firm:	CSIR
Name of Staff:	Ismail Banoo
Profession:	Environmental Assessment and Management
Position in Firm:	Regional Manager EMS - KZN
Nationality:	South African

BIOGRAPHICAL SKETCH

Ismail Banoo is a Senior Environmental Assessment Practitioner and Manager of the CSIR Environmental Management Services team based in Durban, South Africa.

Ismail's involvement in several industrial and port related Environmental Impact Assessments (EIAs) has afforded him an indepth understanding of the sustainability issues facing development in Africa. He has been involved in private sector and development agency funded projects in Botswana, Mozambique and Angola. All of these projects involved interaction with a wide variety of stakeholders and key to these interactions has been managing and facilitating public participation processes and effective stakeholder engagement.

With over 12 years experience in the environmental assessment and management field, Ismail has participated in various international conferences and workshops. He has also facilitated numerous EIA/SEA training courses for universities as well as the private and public sector in South Africa and other African countries.

Fields of Competence	▪ Environmental impact assessments ▪ Strategic environmental assessments ▪ Environmental management capacity building ▪ EIA project management ▪ Environmental policy analysis and governance ▪ Environmental management systems and auditing ▪ Experience in management of integrated product development and integration of multidisciplinary teams. ▪ Facilitation and strategy development
Professional Affiliations & Registrations	▪ International Association for Impact Assessment. ▪ International Association for Impact Assessment (South African Affiliate). ▪ Certified Environmental Assessment Practitioner in South Africa – (EAPSA Certified).
Education	▪ BA, University of Durban Westville, South Africa, 1998 ▪ BA Honours University of Durban Westville, South Africa, 2000 ▪ MA (Environmental Science), University of Durban Westville, South Africa, 2002 ▪ Basic Environmental Assessment and Management Course, University of Free State, South Africa. 2002 ▪ Basic and Intermediate Project Management Course, CSIR, Innovation Leadership and Learning Academy, 2003

	▪ Advanced Project Management Course II, CSIR Innovation Leadership and Learning Academy, 2004 ▪ UNIDO International Cleaner Production Training Course, National Cleaner Production Centre, 2005
Languages	▪ English ▪ Afrikaans, basic ▪ Zulu, basic ▪ Urdu, basic
Key Industry Sectors	▪ Ports and harbour developments ▪ Large industrial and infrastructure developments ▪ Corporates ▪ Municipalities
Awards	▪ National Research Foundation (SA), 2000 – 2002, Awarded research scholarship for undertaking Masters Degree ▪ CSIR 2006 – Young Researchers Establishment Fund, awarded an internal research scholarship for undertaking research on integrating sustainability imperatives into strategic decision making for sustainable business operations in South Africa.
Recent Key Project Experience	**2012** **Basic Assessment for a Biomass Power Plant near Mkuze.** *Project Leader* Electrawinds Africa and Indian Ocean Islands (Pty) Ltd appointed the CSIR to carry out a Basic Assessment Process for the construction and operation of a Biomass Power Plant near Mkuze in KwaZulu-Natal that will have an installed net electrical generation capacity of up to 16.5 MW. The proposed project requires a Basic Assessment process in order to determine the impact (direct, indirect and cumulative) of the proposed project with regards to noise, visual, fauna and traffic. **Basic Assessment for a Lighthouse near Port Nolloth** *Project Leader* Transnet Freight Rail, a division of Transnet Limited, appointed the CSIR to carry out a Basic Assessment Process for the construction of a Lighthouse on ERF 335 near Port Nolloth in the Northern Cape. The proposed project requires a Basic Assessment process in order to determine the impact (direct, indirect and cumulative) of the proposed project with regards to visual and heritage. **2011** **Decommissioning of Oilfield Infrastructure in Block 0, Angola.** *Project Leader* The client intends to decommission a series of facilities no longer in operation in Block 0, Angola. The EIA is required to identify and assess various options for disposing the facilities. The EIA is on-going. **Wastewater Monitoring for Transnet Pipelines** *Project Leader* Transnet Pipelines, a division of the Transnet Group, appointed the CSIR to undertake wastewater monitoring for Transnet depots along the Durban to Gauteng line. The project involves water quality monitoring with respect to prescribed variable limits

and guidelines, and applications for General Authorisations for wastewater disposal if compliant to relevant standards.

Environmental Impact Assessment for the proposed Bulk Liquid Storage and Handling Facility in Zone 8 of the Coega IDZ, Port of Ngqura
Project Leader
Oiltanking Grindrod Calulo (PTY) Ltd proposes to construct a 20-hectare bulk liquid storage and handling facility in Zone 8 of the Coega IDZ, in the Port of Ngqura. The proposed project consists of storage tanks, pipelines from the berth to the tank farm and infrastructure at the berth. The proposed project requires a full scoping and environmental impact assessment process in order to determine the impact (direct, indirect and cumulative) of the proposed project with regards to terrestrial ecology, air quality, marine ecology, risks, traffic, archaeology and palaeontology.

Environmental Sensitivity Study for the proposed development of Pier 1 Phase 2 container terminal in the Port of Durban
Project Leader

The CSIR was appointed by Transnet Capital Projects (TCP) to conduct a high level Environmental Sensitivity Study (focused primarily on marine and heritage related aspects) for the proposed development of the Pier 1 Phase 2 Container Terminal in the Port of Durban. The purpose of the Environmental Sensitivity Study/Risk Assessment was to identify potential environmental risks which may arise as a result of the proposed project, and determine whether or not such risks would present a "fatal flaw" to the project. An environmental "fatal flaw" is typically defined as an impact that could have a "no-go" implication for the project, and are impacts which could potentially result in an application for environmental authorization being rejected by the competent authority, in this case the Department of Environmental Affairs (DEA).

Environmental Impact Assessment for the proposed Universal Wind Energy Project in Zone 12 of the Coega IDZ
Project Leader

Universal Wind proposed the establishment of a wind energy farm consisting of 20 turbines within Zone 12 of the Coega IDZ. The proposed project requires a full scoping and environmental impact assessment process in order to determine the impact (direct, indirect and cumulative) of the proposed project with regards to noise, visual, birds, and bats.

Scoping and Environmental Impact Assessment for a proposed Marine Servitude and Pipelines in the Coega Industrial Development Zone (IDZ)
Project Leader

The Coega Development Corporation (CDC) proposed the development of a marine servitude and pipeline within the Coega IDZ with which to cater to industrial tenants' seawater abstraction and wastewater disposal needs. The proposed project would allow for abstraction of seawater for use in cooling processes and mariculture, while the disposal of waste water would occur within the same servitude.
2010

EIA for a Proposed Wellfield Development Project in Botswana
Project Leader

The client is conducting a detailed feasibility study and EIA for the Mmamabula

Energy Project (MEP), a combined coal mine and power plant development in Botswana. In addition to these activities there are also a number of ancillary projects which are required to support the MEP. One such project includes the investigation of groundwater reserves located within close proximity to the MEP referred to as the Bonwapitse Proposed Wellfield Area (PWA) as a potential sustainable source of water for the construction and operational phases of the MEP. This project is the subject of the EIA that has been conducted to international as well as Botswana regulatory standards.

Durban International Airport (DIA) Environmental Due Diligence Assessment
Project Leader

The DIA has been identified by Transnet as a possible site for the development of a new port, largely in order to increase the capacity of the existing Port of Durban. The client wished to investigate the potential environmental liability associated with purchasing the DIA site and subsequently constructing a new port. The study focused on reviewing all existing information followed by an analysis of the key environmental sensitivities in the vicinity of the site.

Environmental and Social Evaluation of Eastern Port Rail Corridor Proposed Port Layout Options
Project Leader

As part of the Ports and Rail Corridor Project, Transnet are investigating future port layout options that reflect the economic demand expected over the next 30 years. Various criteria where being evaluated. Core to these criteria were various environmental and social criteria. The study undertaken was to analyse and rate the environmental and social criteria for each port. The report included the outcome of this process for the ports within the Eastern Port and Rail Corridor (EPRC) which include the Port of Durban and Port of Richards Bay.

Environmental Review Eastern Port and Rail Corridor
Project Leader

The scope of this study was to review previous Environmental Impact Assessments (EIAs) and associated Records of Decision (RODs), Strategic Environmental Assessments (SEAs) and other planning documents to identify environmental and social drivers and assess their impact on future port planning, development and operations. Associated with the above was the need to consult with key stakeholders on the environmental and social issues that they may consider important for future port planning, development and operation. The final report was collated with incorporating these key imperatives of the study.

EIA for Proposed Grass Roots Crude Oil Refinery in Lobito, Angola
Project Leader

The client is proposing to build a new refinery with a refining capacity of 200,000 barrels per day. The primary goal of the project is to add value to heavy and acidic Angolan crude by refining it to produce high quality transportation fuels. The EIA is currently ongoing and is being conducted with support from other international technical partners and local Angolan consultants including the Angola Research Institute (A-IP) and Holisticos. I was responsible for all project management requirements on the project. This included all specialist investigation co-ordination as well as public consultation activities. I was also part of the social team (in-conjunction with local partners) who were involved in a comprehensive social impact assessment

for all components of the project.

Environmental and Social Evaluation of Long Term Coal Supply Rail Routing Options
Project Leader

The scope of this study is to conduct a desktop environmental and social baseline study for a number alternative rail routing options in the greater Gauteng and Mpumalanga provinces. The proposed project area encompass the municipalities of Eastvaal District Municipality, Nkangala District Municipality, Seme Municipality, Lekwa Municipality and Gert Sibande District municipality, and will intend to transport coal to, Grootvlei, Kendal, Majuba, Tutuka and Camden power stations respectively. The objective of the study is to identify and map key resource sensitivities in order to support spatial planning for the development of railway corridors for transportation of coal on a long term basis. I am the project manager on the project with overall responsibility for the completion of the project.

Environmental Impact Assessment for Block 15 (Kizombo Satelites Project) - Esso Exploration Angola Ltd.
Project Reviewer

The project involved the undertaking an Environmental Impact Assessment for EEAL's Plan Satelite Fields Sub-sea tiebacks to existing oil and gas production facilities in offshore Angola (Block 15).

2008

State of Environment Report for the Nkangala District Municipality
Project Leader

Principal author of a specialist report on Integrated Waste Management Planning for the Nkangala district. Project involved addressing key issues raised by stakeholders and maximising resource use through improved waste stream management.

EIA for the Expansion of the Port of Ngqura – Port Elizabeth – South Africa
Project Manager

The client is proposing to expand the existing quay wall as well as construct an admin craft building in order to complete the final phases of the pre-feasibility studies as part of the Port of Ngqura development. The completion of these components will facilitate the operation of the Port of Ngqura by 2007/8.

2007

National Cleaner Production Strategy
Project Leader

The Department of Environmental Affairs and Tourisms Branch for Environmental Quality Protection embarked on developing a national strategy and implementation plan for Cleaner Production. The strategy was prepared for DEAT as part of the South African implementation of the Johannesburg Plan of Implementation (JPOI), with particular reference to the implementation of recommendations as contained in Chapter 3 on sustainable consumption and production. The key emphasis of the strategy was on the cleaner production aspect. Involvement was as a Principle Drafter and overall Project Leader and Manager of the project.

	Environmental Due Diligence Assessment for 18 pots expansion project at BHP Billiton –Hillside Smelter *Project Manager* The client is investigating the development of new technology for aluminium smelting by adding 18 additional pots to existing operations at the plant. The project involved evaluating the key environmental parameters associated with the proposed expansion and included the development of an integrated environmental report to be submitted to the authorities for approval. **Science of Climate Change** *Researcher* The project involved undertaking a detailed literature review of climate change for the Municipality. Assisted with developing and writing up the scenarios for climate change for the city. The project also identified a series of additional parameters which formed part of the scenario development process. **Environmental Site Suitability Study – Proposed Manganese Smelter** *Project Leader* The client wished to establish a ferro-alloy manganese smelter within Southern Africa. Project investigated four industrial sites and evaluated the suitability of each site for the proposed development project. Key findings include the capacities and constraints associated with the project.
Courses/ Presentations/ Training Events	**2011/2012** **University of Kwa-Zulu Natal – Durban Campus** *Guest Lecturer* Lecture on topics pertaining to EIA application to second and third year students in the Environmental Science Department for the first semester environmental management module. **2009** **University of Kwa-Zulu Natal – Durban Campus** **Client: Department of Agriculture and Environmental Affairs (DAEA)** *Course presenter/Overall Co-ordinator* Presented a two day environmental assessment and management course to DAEA (KZN Provincial environmental authority). **Department of Economic Affairs, Environment and Tourism** *Course Co-ordinator and Lead Presenter* Presented an intensive course to the environmental impact assessment directorate in the Eastern Cape Region. The content covered IEM and environmental assessment and management topics **IQPC (South African Branch)** *Team Leader/ Chief Presenter* Presented a one day workshop on a Step-by-Step guide to completing an effective Environmental Impact Assessment. **2008**

University of Durban Westville, Centre for Development Management
Course Presenter
Presented a one day course on environmental management and local government – The role of and objectives of Agenda 21 in local development planning

University of Kwa-Zulu Natal – Pietermaritzburg Campus, Centre for Environment and Development
Course Presenter
Presented a five day course for Masters students on EIA and IEM as part of university of curriculum.

University of Kwa-Zulu Natal – Durban Campus, Department of Geography and Environmental Studies
Lecturer
Lectured on IEM topics to Honours and Masters students as part of the Environmental Management Semester Module (2005 – 2007)

Language capability

	Speaking	*Reading*	*Writing*
English	Excellent	Excellent	Excellent
Afrikaans	Average	Average	Average
Urdu	Excellent	Good	Average

Appendix H.2 Proof of EAP-SA Certification of Ismail Banoo

The Interim Certification Board

for

Environmental Assessment Practitioners
of
South Africa

Ismail Banoo

was certified as an

ENVIRONMENTAL ASSESSMENT PRACTITIONER

on this 15th day of April 2008

Chairperson

Secretary

Appendix H.3 Curriculum Vitae of EAP – Kavandren Moodley

CURRICULUM VITAE – KAVANDREN MOODLEY

Name of Firm:	CSIR
Name of Staff:	Kavandren Moodley
Profession:	Environmental Assessment and Management
Position in Firm:	Junior Environmental Assessment Practitioner (in training)
Nationality:	South African

BIOGRAPHICAL SKETCH

Kavandren Moodley is a Junior Environmental Assessment Practitioner based in the Environmental Management Services (EMS) team in Durban, South Africa. He holds a BSc. Honours in Environmental Science (*Cum Laude*) and is currently undertaking his MSc. in Environmental Science. His research interests are focused on the water and sediment quality of three major catchments in KwaZulu-Natal using analytical, bio-monitoring and GIS based techniques. He has recently been involved and assisted senior consultants in several environmental studies at the Port of Durban and the Coega IDZ including Preliminary Environmental Assessments, Environmental Impact Assessments (EIAs), Environmental Management Plans (EMP's), ensuring compliance to Environmental Management Plans in the form of Environmental Control Officer Duties, and waste water monitoring programs. Kavandren is also experienced with regards to Geographic Information Systems (GIS) and Remote Sensing applications.

Fields of Knowledge and Competence	▪ Preliminary Environmental Assessments ▪ Basic Assessments (BA's) ▪ Environmental Impact Assessments (EIA's) ▪ Environmental Management Plans (EMP's) ▪ Environmental Management Systems and compliance monitoring ▪ Public participation processes ▪ Basic Project Management
Professional Affiliations & Registrations	▪ International Golden Key Honourary Society.
Education	▪ BSc Environmental Science (Majors in Environmental Science and Geology) – University of KwaZulu-Natal, South Africa, 2009 ▪ BSc Honours Environmental Science – *Cum Laude* (Majors in Environmental Science), Certificates of Merit awarded in Advanced Remote Sensing and Air pollution, placed in top 15% of academic achievers at UKZN for 2010 – University of KwaZulu-Natal, South Africa, 2010 ▪ MSc Environmental Science – in progress (2011 – present; anticipated date of submission – November 2012)
Languages	▪ English ▪ Afrikaans (Basic)
Key Industry Sectors	▪ Industrial and Infrastructure Developments (Oil and Gas)

	▪ Renewable Energy ▪ Private Sector – Land Development (Residential, Business etc.) ▪ Municipalities

Appendix I.1: Timothy Hart – Heritage Impact Assessment

0

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	14/12/16/3/3/1/671
NEAS Reference Number:	DEAT/EIA/0001379/2012
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

Basic Assessment for the proposed Port Nolloth Lighthouse – near Port Nolloth, Northern Cape.

Specialist:	ACO Associates cc		
Contact person:	Timothy Hart		
Postal address:	Unit c26 Prime Park, 21 Mocke Road, Diep River		
Postal code:	7800	Cell:	073 141 8618
Telephone:	021 706 4104	Fax:	086 6037179
E-mail:	tim.hart@aco-associates.com		
Professional affiliation(s) (if any)	Member No 50 Association of Professional Archaeologists of Southern Africa		

Project Consultant:	Council for Scientific and Industrial Research (CSIR)		
Contact person:	Ismail Banoo		
Postal address:	P.O. Box 17001, Congella, Durban		
Postal code:	4013	Cell:	084 667 8680
Telephone:	031 242 2376	Fax:	031 261 2509
E-mail:	ibanoo@csir.co.za		

4.2 The specialist appointed in terms of the Regulations_

I, Timothy James Graham Hart , declare that --

General declaration:

I act as the independent specialist in this application
I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
I declare that there are no circumstances that may compromise my objectivity in performing such work;
I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
I will comply with the Act, regulations and all other applicable legislation;
I have no, and will not engage in, conflicting interests in the undertaking of the activity;
I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
all the particulars furnished by me in this form are true and correct; and
I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the specialist:

Name of company (if applicable):

ACO Associates CC

Date:28/1/2013

Appendix I.2 Henry Holland – Visual Impact Assessment

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	14/12/16/3/3/1/671
NEAS Reference Number:	DEAT/EIA/0001379/2012
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

Basic Assessment for the proposed Port Nolloth Lighthouse – near Port Nolloth, Northern Cape.

Specialist:	MapThis Trust		
Contact person:	Henry Holland		
Postal address:	8 Cathcart Street, Grahamstown, Eastern Cape		
Postal code:	6139	Cell:	082 226 6689
Telephone:	046 622 8735	Fax:	
E-mail:	hholland@gmail.com		
Professional affiliation(s) (if any)			

Project Consultant:	Council for Scientific and Industrial Research (CSIR)		
Contact person:	Ismail Banoo		
Postal address:	P.O. Box 17001, Congella, Durban		
Postal code:	4013	Cell:	084 667 8680
Telephone:	031 242 2376	Fax:	031 261 2509
E-mail:	ibanoo@csir.co.za		

4.2 The specialist appointed in terms of the Regulations_

I, Henry Holland , declare that --

General declaration:

I act as the independent specialist in this application
I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
I declare that there are no circumstances that may compromise my objectivity in performing such work;
I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
I will comply with the Act, regulations and all other applicable legislation;
I have no, and will not engage in, conflicting interests in the undertaking of the activity;
I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
all the particulars furnished by me in this form are true and correct; and
I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.

H. Holland.

Signature of the specialist:

Name of company (if applicable):

25/01/2013
Date:

APPENDIX J: Additional Information

Appendix J.1: References used in Draft BAR

Claassen, R. (2012) *Personal communication: 23-10-2012.* Waste Consultant at Poltech, South Africa.

DENC (2012) *Annual Performance Plan*. Department of Environment and Nature Conservation, Northern Cape.

NDM (2011) *Environmental Management Framework and Strategic Environmental Management Plan.* Namakwa District Municipality, Northern Cape.

NDM (2012) *Integrated Development Plan 2012 – 2016*. Namakwa District Municipality, Northern Cape.

NPC (2011) *National Development Plan – Vision for 2030*. National Planning Commission, South Africa.

Office of the Premier of the Northern Cape (2011) *Northern Cape Provincial Spatial Development Framework – Volume 1: Context and Overarching Policy*. National Department of Rural Development and Land Reform, South Africa.

RLM (2009) *Integrated Development Plan of the Richtersveld Local Municipality – Review 2009.* Richtersveld Local Municipality, Northern Cape.

RLM and Department of Rural Development and Land Reform (2010) *Rural Spatial Development Framework/Land Development Plan*. Richtersveld Local Municipality, Northern Cape.

Statistics South Africa, 2008. *Community Survey 2007 [on-line]*, Statistics South Africa.

Statistics South Africa, 2009. *Community Survey 2007: Basic Results – Northern Cape*, Statistics South Africa.

Appendix J.2: Email correspondence with the waste specialist regarding corrugated asbestos roofing removal

From: "Ronelle Potgieter" <ronelle@enviro-quest.co.za>
Sent: 31/01/2013 09:42:20
To: Kavandren Moodley
CC: angelap@poltech.co.za
Subject: RE: Need for waste licence/EIA for asbestos roof removal

Dear Kavandren
The once-off collection and disposal of hazardous waste (in this case 0.18 m3) is not listed as a waste management activity that can have a detrimental effect on the Environment in GNR 1113, 2010. Therefore in my opinion a waste management license and environmental assessment will not be required.
However, the demolition of a building where asbestos-containing sheeting is used is governed by the Asbestos Regulations, specifically Section 21. I am attaching the regulations for your consideration. Waste handling and management of the asbestos sheeting is also specified.
I hope this answers your question.

Kind regards

Ronelle Potgieter

ENVIROQUEST

P.O. Box 28744, Sunridge Park, Port Elizabeth, South Africa, 6008
041 - 379 5956 083-6361156 0866170998
ronelle@enviro-quest.co.za

From: Kavandren Moodley [mailto:KMoodley1@csir.co.za]
Sent: Wednesday, January 30, 2013 9:10 AM
To: ronelle@enviro-quest.co.za
Subject: Need for waste licence/EIA for asbestos roof removal

Hi Ronelle,

Thank you for taking the time to discuss demolishing the lean-to structure with the corrugated asbestos roof sheeting (see the attached image for this structure).

As discussed by telephone (and evident in the attached picture), this lean-to structure is approximately 6 m in length and 3 m in width with a roof thickness of 0.01 m at an absolute maximum. This means that the total quantity of asbestos roofing requiring removal will be 0.18 cubic metres at the most.

As agreed in our discussion, it would be illogical to undertake a full EIA process and waste licence application for such a minimal amount of asbestos waste which will only be once off during the decommissioning process and falls well under applicable thresholds.

The plan is remove the asbestos roofing under contract conditions using an accredited services provider and disposing off at a registered hazardous waste treatment facility.

May I request your feedback in this regard and please could you also indicate any additional measures that might be applicable.

Once again I thank you for your assistance and I look forward to your feedback in this regard.

Kind Regards,

Kavandren Moodley
Environmental Management Services (EMS)

CSIR Consulting and Analytical Services
PO Box 17001
Durban, 4001

Tel: (031) 242 2385
Fax: (031) 261 2509
Email: *KMoodley1@csir.co.za*

Appendix J.3: Proof of application for a heritage permit from Northern Cape Provincial Heritage Resources Agency (PHRA) – for removal of the lean-to structure (SAHRIS Case number 1551)

NGWAO-BOSWA YA KAPA BOKONE

1 Robb Street
Kimberley North
P.O Box 1930
KIMBERLEY,
8301

Rob Straat 1
Kimberley Noord
P. O Box 1930
KIMBERLEY
8301

Moago Robb 1
Kimberley North
P. O Box 1930
KIMBERLEY
8301

Isakhiwo I – Robb 1
Kimberley North
P.O Box 1930
KIMBERLEY,
8301

Telephone:
+27 53 8312537/0790369294

Fax:
+27 53 8331435

E-mail:
ratha.timothy@gmail.com

APPLICATION

To destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of Provincial Heritage Site or a Provincially Protected Place, or to alter or demolish a Structure 60 years or older, as protected in terms of the National Heritage Resources Act (No.25 of 1999).

Site Name &
Street Address: ***Staff quarters (Portnet) at Port Nolloth. Beach Road, Port Nolloth***

Erf/Stand/Farm No: ***Erf 335***

Magisterial District: ***Richtersveld*** **Municipality:** ***Namaqua District***

Please complete all sections relevant to your application

1. **APPLICANT**

Name: Vincent Matabane

Postal Address: PO Box 72501,
Parkview,
Johannesburg,
South Africa

Postal Code: 2122 **Telephone: 011 584 0551**

Fax: 086 667 7626 **E- mail: vincent.matabane@transnet.net**

Identity Number: 7205045362082

2. **OWNER OF PROPERTY** (when this is not the applicant)

Name: DAVID GORDON

Postal Address: P.O. Box 50491, WATERFRONT
CAPE TOWN

Postal Code: 2002 Telephone: 021 449 4662

Fax: 021 449 3663 E- mail: DAVID.GORDON@TRANSNET.NET

Identity Number: 7002215027086

Signature:

3. **SITE:** (Indicate status in the appropriate box)

	Provincial Heritage Site (former National Monument		**Other provincially protected place**
	Sites within a Heritage Area (Former conservation area)	**yes**	**Structure older than 60 years**

Current Use: ***Lean-to off an existing structure /used as a store***
.....

Proposed Use: ***To make space for construction of a light house.....***

Age of Property: ***Staff house built post 1955.....***

4. **PARTICULARS OF PRIMARY RESPONSIBILITY AGENT:**
(Architect, Designer, etc.)

Name: IVAN JOOSTE

Qualifications: ARCHITECTURAL DESIGNER - (PR. ARCHITECTURAL TECHNOLOGIST) SACAP REG. ST2139

Company: TRANSNET FREIGHT RAIL - RME

Address: TRANSNET FREIGHT RAIL - RME
P.O. Box 338, KASSELSVLEI, BELLVILLE

Postal Code: 7533 Telephone: 021 9401819

Fax: 021 9401960 E- mail: IVAN.JOOSTE@TRANSNET.NET

5. SCOPE OF PROPOSED WOKS: (Indicate in the appropriate box)

	Total demolition	**yes**	Partial demolition		Alteration
	Addition		Subdivision		Restoration
	Rezoning		Excavation	**yes**	Landscaping
	Departure				

Other (explain)……..

Drawing reference Numbers and Dates:
Drawings in 2013 BA report, no plans available, no drawing reference numbers provided.

……

Detail the manner in which the work is to be carried out:
Simple demolition of small lean-to on building that may be greater than 60 years of age to create space to build a light house.

Excavation and casting of footings for new lighthouse.

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Motivation for proposed work: (Please motivate fully, with reference to conservation principles where appropriate. This space may also for additional details required above.)

.....

A permit is sought for the demolition of a brick lean-to off the south end of the Port staff quarters in Beach Road in Port Nolloth. The exact date of the construction of the staff quarters is unknown but likely to be mid-late 20th century. It may be more than 60 years old however joinery and fittings are recent and not conservation worthy. Neither the staff quarters nor lean-to has conservation value so the demolition of the lean-to will not impact heritage significance.

The work is necessitated by the need to construct a new lighthouse which assists mariners in navigating into the Port. The lighthouse needs to be placed on a specific bearing with reference to the entrance to the Port which means that it cannot be moved from a specific alignment, hence the need to demolish the lean-to so that space can be made for its construction. A full report prepared by a professional heritage consultant is appended.

Older buildings require special treatment in terms of specifications, techniques and planning of alterations. In this regard:

a. What experience does the Primary Agent have in working on sites that have heritage value?

   n/a
   .....

   .....

b. What experience does the contractor on the site have in working with historical sites?
   .....
   n/a
   .....

6. Applicant:

I, ..Vincent Matabane.....
Undertake fully to observe the terms, conditions, restrictions, regulations, guidelines and directions under which the Ngwao Boswa jwa Kapa Bokone may issue a permit.

Signature: .....

Place: Parktown.... Date: 5/02/2013.....

ITEMS TO ACCOMPANY THIS FORM:

Two sets of drawings, one of which must be coloured- up. An authorised set will be returned to the applicant

Photographs of structures in their present form and in context (e.g: streetscape and neighbouring buildings). Format must be either unounted prints of photographic

negatives or a CD with digital photographs and a set printed on A4 paper. The location of each photograph should be noted on the back of photographic printed copy of a digital photograph.

In cases in other than demolition or partial demolition a set of specifications
We, NBKB, reserve the right to the following:

- Cancel
- Nullify
- Reserve

The application if the criteria and conditions are not met or applied as per the requirements set out above.

Any other information requested by NBKB.

Appendix J.4: EIA Application Form for Environmental Authorisation submitted by CSIR to DEA (Dated: 1 August 2012)

Consulting and Analytical Services
PO Box 17001 Durban 4013 South Africa
Tel: +27 31 242 2385
Fax: +27 31 261 2509

1 August 2012

To: Nyiko Nkosi

National Department of Environmental Affairs
Branch: Environmental Quality and Protection
Fedsure Building
Private Bag X447
315 Pretorius Street
Pretoria 0002

Dear Nyiko

APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR A PROPOSED LIGHTHOUSE CONSTRUCTION BY TRANSNET FREIGHT RAIL (TFR) NEAR PORT NOLLOTH, NORTHERN CAPE.

Enclosed are the application forms for the Basic Assessment process for the proposed lighthouse project by Transnet Freight Rail (TFR) on ERF 335 near Port Nolloth, in the Richtersveld Municipal area, Northern Cape. Please also find attached the EAP Declaration of Interest form as well as locality maps and a landowner acknowledgment letter pertaining to the proposed project.

This application covers the demolishing of an existing aluminium lattice lighthouse structure on ERF 44, and the proposed construction of a new concrete tower lighthouse on ERF 335 adjacent to the existing lighthouse plot. The existing lighthouse was commissioned in April 1979 and has reached the end of its life span. In line with the proposed activities relating to the project it is our understanding that the proposed new lighthouse on ERF 335 is the subject of a Basic Assessment (BA) process.

The CSIR has been appointed by TFR as the independent Environmental Assessment Practitioner, in terms of the National Environmental Management Act (Act 107 of 1998, as amended) and its amended Regulations 543, 544, 545 and 546, as promulgated on 18 June 2010.

Please feel free to contact the undersigned should you have any questions.

Sincerely,

Ismail Banoo
Project Leader (EAPSA certified)
CSIR Environmental Management Services

Tel: 031 242 2378
Email: ibanoo@csir.co.za

Kavandren Moodley
Project Manager
CSIR Environmental Management Services

Tel: 031 242 2385
Email: KMoodley1@csir.co.za

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

APPLICATION FORM FOR ENVIRONMENTAL AUTHORISATION

	(For official use only)
File Reference Number:	
NEAS Reference Number:	
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

BA and EMP for the proposed Port Nolloth Lighthouse on ERF 335 near Port Nolloth, Northern Cape.

Kindly note that:

1. This application form is current as of 2 August 2010. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
3. Where applicable **black out** the boxes that are not applicable in the form.
4. Incomplete applications may be returned to the applicant for revision.
5. The use of the phrase "not applicable" in the form must be done with circumspection. Should it be done in respect of material information 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 application must be handed in at the offices of the relevant competent authority as determined by the Act and regulations.
7. No faxed or e-mailed applications will be accepted.
8. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

Queries must be addressed to the contact hereunder:

Departmental Details

Postal address:
Department of Environmental Affairs
Attention: Director: Environmental Impact Evaluation
Private Bag X447
Pretoria
0001

Physical address:
Department of Environmental Affairs
Fedsure Forum Building (corner of Pretorius and Van der Walt Streets)
2nd Floor North Tower
315 Pretorius Street
Pretoria
0002

Queries should be directed to the Directorate: Environmental Impact Evaluation at:

Tel: 012-310-3268
Fax: 012-320-7539

Please note that this form must be copied to the relevant provincial environmental department/s.

View the Department's website at http://www.deat.gov.za/ for the latest version of the documents.

SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

C	0	5	3	0	0	1	0	0	0	0	0	0	3	3	5	0	0	0	0	0

(if there are more than 6, please attach a list with the rest of the numbers)
(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

Note from CSIR: Please refer to Appendix C for a map illustrating the ERF numbers.

PROJECT TITLE

BA and EMP for the proposed Port Nolloth Lighthouse on ERF 335 near Port Nolloth, Northern Cape.

1. BACKGROUND INFORMATION

Project applicant:	Transnet Freight Rail		
Trading name (if any):	Transnet SOC Limited		
Contact person:	Vincent Matabane		
Physical address:	Inyanda House 2, 15 Girton Road, Parktown, 2001		
Postal address:	P.O. Box 72501, Parkview, Johannesburg, South Africa		
Postal code:	2122	Cell:	083 297 76260
Telephone:	011 584 0551	Fax:	086 66 77 626
E-mail:	vncent.matabane@transnet.net		

Provincial Authority:	Department of Tourism, Environment and Conservation – Northern Cape		
Contact person:	Mr Sibonelo Mbanjwa		
Postal address:	Private Bag X6102, Kimberley		
Postal code:	8300	Cell:	082 303 2430
Telephone:	053 807 4800	Fax:	053 831 3530
E-mail:	dmoleko@half.ncape.gov.za		

Landowner:	Transnet National Ports Authority – Lighthouse and Navigational Systems		
Contact person:	J.J. Basson		
Postal address:	P.O. Box 50491, Waterfront		
Postal code:	8002	Cell:	083 273 4052
Telephone:	021 449 5171	Fax:	021 449 3663
E-mail:	john.basson@transnet.net		

In instances where there is more than one landowner, please attach a list of landowners with their contact details to this application.

Local authority in whose jurisdiction the proposed activity will fall:	Richtersveld Local Municipality		
Nearest town or districts:	Springbok, Namakwa District		
Contact person:	Madeleinne Brandt (Municipal Manager)		
Postal address:	Private Bag X20, Springbok		
Postal code:	8240	Cell:	
Telephone:	027 712 8000	Fax:	027 712 8040
E-mail:	mbrandt@namakwa-dm.gov.za		

In instances where there is more than one local authority involved, please attach a list of local authorities with their contact details to this application.

2. ACTIVITIES APPLIED FOR TO BE AUTHORISED

2.1 For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant notice) :	Describe each listed activity as per project description[1]:
GN.R544, 18 June 2010	18 (iv),	The construction process for the lighthouse might require the infilling or depositing of material more than 5 cubic metres, as well as excavations at a distance of 100 m inland of the high-water mark of the sea.
GN.R546, 18 June 2010	16 (iii), (iv), iii: (cc),	The final layout might result in buildings and infrastructure with a footprint of 10 square metres each, encroaching within 32 metres of a watercourse.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

Note from CSIR: The precautionary approach has been followed in completing the Table of Listed Activities, in that if there is any doubt at this stage of the project planning whether or not an activity is included in the project design, then the activity is listed. This list may be refined during the course of the BA.

2.2 A project schedule, indicating the different phases and timelines of the project, must be attached to this application form.

Note from CSIR: Refer to Appendix D for the Schedule.

3. OTHER AUTHORISATIONS REQUIRED

3.1 DO YOU NEED ANY AUTHORISATIONS IN TERMS OF ANY OF THE FOLLOWING LAWS?

3.1.1 National Environmental Management: Waste Act — No
3.1.2 National Environmental Management: Air Quality Act — No
3.1.3 National Environmental Management: Protected Areas Act — No
3.1.4 National Environmental Management: Biodiversity Act — No
3.1.5 Mineral Petroleum Development Resources Act — No
3.1.6 National Water Act — No
3.1.7 National Heritage Resources Act — No
3.1.8 Other (please specify) — No

3.2 Have such applications been lodged already? — No

[1] Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description

4. DECLARATIONS

4.1 The Applicant

I, VINCENT MATABANE ,declare that I -

- am, or represent[2], the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application / will obtain exemption from the requirement to obtain an environmental assessment practitioner[3];
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2010, including but not limited to –
  - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
  - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
  - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
  - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;

[2] If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.
[3] If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

TRANSNET Freight Rail
A Division of Transnet SOC Limited Reg. No. 1990/000900/06
2012 -07- 11
Enterprise Risk Management
JOHANNESBURG

Signature of the applicant[4]/ Signature on behalf of the applicant:

TRANSNET FREIGHT RAIL
Name of company (if applicable):

11/07/2012
Date:

[4] If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority. An EAP may not sign on behalf of an applicant.

Appendix A: EAP DECLARATION

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF EAP AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	12/12/20/
NEAS Reference Number:	DEAT/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

BA and EMP for the proposed Port Nolloth Lighthouse on ERF 335 near Port Nolloth, Northern Cape.

Environmental Assessment Practitioner (EAP):[1]	Ismail Banoo		
Contact person:	Ismail Banoo		
Postal address:	PO Box 17001, Congella, Durban		
Postal code:	4013	Cell:	084 667 8680
Telephone:	(031) 242 2378	Fax:	(031) 261 2509
E-mail:	ibanoo@csir.co.za		
Professional affiliation(s) (if any)	EAPSA certified; IAIA; IAIASA		

Project Consultant:	Kavandren Moodley		
Contact person:	As above		
Postal address:	PO. Box 17001, Congella, Durban		
Postal code:	4013	Cell:	073 274 4486
Telephone:	(031) 242 2385	Fax:	(031) 261 2509
E-mail:	kmoodley1@csir.co.za		

4.2 The Environmental Assessment Practitioner

I, Ismail Banoo declare that –

General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation **8** of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

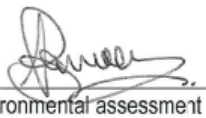
- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;
- ~~I have a vested interest in the proposed activity proceeding, such vested interest being:~~

_____

_____

_____

_____



Signature of the environmental assessment practitioner:

CSIR

Name of company:

31/07/2012

Date:

Appendix B: Proof of Informing Owner

TRANSNET

23 July 2012
The Manager
Transnet Freight Rail (RME)
Bellville Square
Main office block
Transnet Office Park,
Modderdam Road
BELLVILLE
7530

Reference: HLH 5/29 (LH565)

Dear Sir

PORT NOLLOTH: PROPOSED CONSTRUCT NEW CONCRETE LIGHTHOUSE ON ERF 335, PORT NOLLOTH

It is hereby confirmed that Transnet National Ports Authority, Lighthouse & Navigational Systems, is the custodians of the property known as Erf 335, Port Nolloth, registered in the name of Transnet SOC Limited under Certificate of Registered Crown Title 33/1953.

Consent is given to Transnet Freight Rail (RME) to construct a new concrete lighthouse, and also to perform all other related activities on the property in order to execute this project successfully.

Kind regards.

J.J. Basson

J J. Basson
Commercial Manager
TNPA Lighthouse & Navigational Systems.

z/john/Tender LH 565 TFR Letter of Consent 1

Transnet SOC Ltd
Registration Number
1990/000900/30

Carlton Centre
150 Commissioner
Street
Johannesburg
2001

P.O. Box 72501
Parkview, Johannesburg
South Africa, 2122
T +27 11 308 3001
F +27 11 308 2638

Appendix C: Site Layout Map

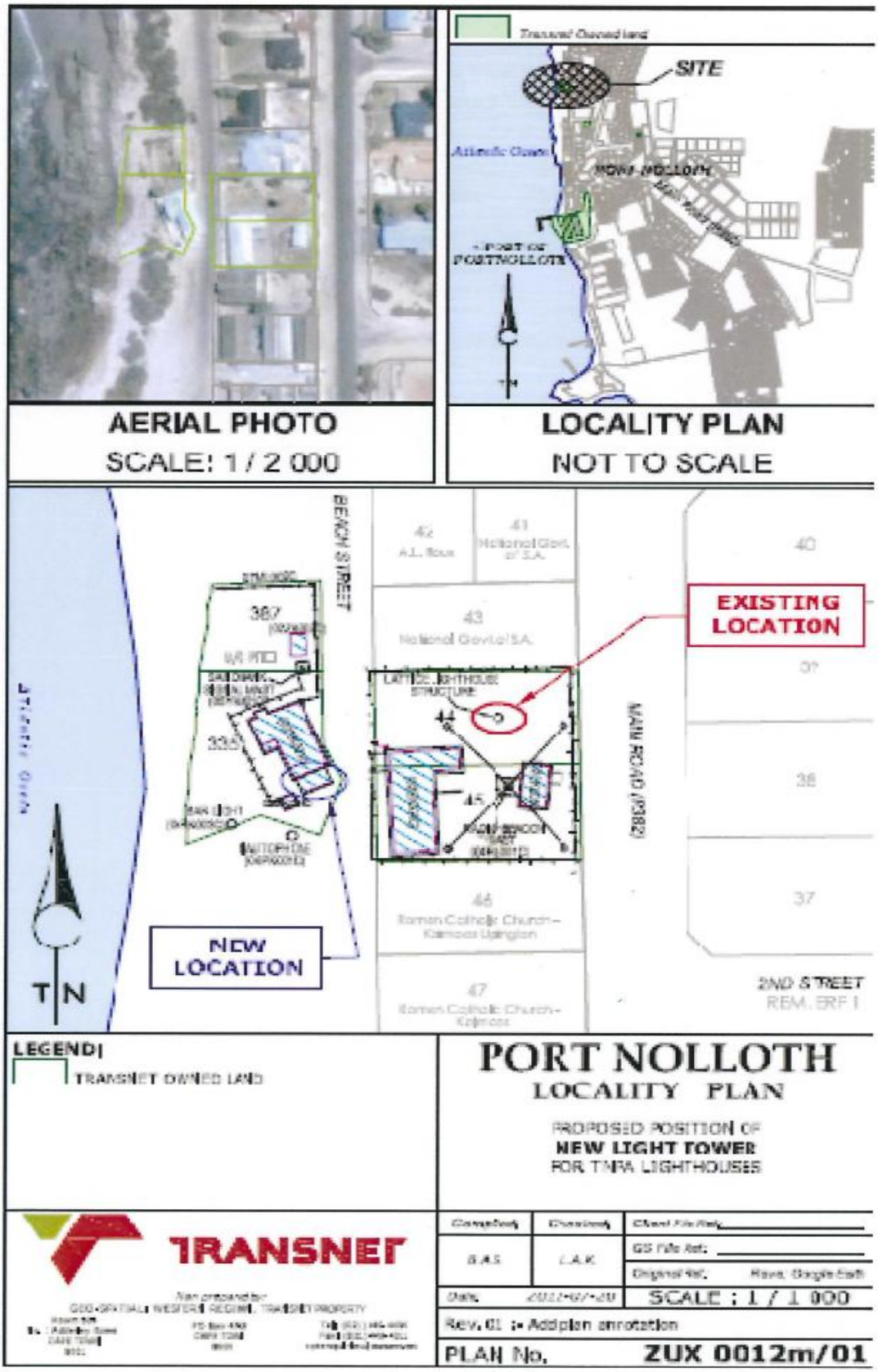


Figure 1: Map illustrating ERF numbers

Figure 2: Locality Map

Appendix D: Project Schedule

Table 1: Provisional BA work schedule

Tasks to be performed	Number of days	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6				Month 7				Month 8			
		Week				Week				Week				Week				Week				Week				Week				Week			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
EAP to complete Application Form and submit to Department.	7																																
Department to acknowledge application (if in order).	14																																
EAP to conduct site visit and notify I&APs and State departments, place notice(s) in the media and prepare and release BID.	30																																
EAP to compile the draft Basic Assessment Report (BAR) (including a draft EMP) and specialists to prepare reports	30																																
EAP to release draft BAR & EMP for comments.	7																																
Department to request comments from the relevant State departments.	7																																
Commenting period of 40 days for I&APs and State departments.	40																																
EAP to consider the comments received and complete the final BAR (including the final draft of the EMP).	28																																
EAP to make the final BAR (including the final draft of the EMP) available to the registered I&APs for a 21-day commenting period.	21																																
Following the commenting period the EAP to submit the BAR together with any comments received on the final BAR to the Department.	14																																
The Department to acknowledge receipt of the BAR.	14																																
If in order, the Department to accept the BAR	30																																
After having accepted the BAR, Department to decide whether or not to grant or refuse Environmental Authorisation.	30																																
The Department to inform the applicant of its decision.	2																																
Applicant/EAP to notify I&APs of outcome and if authorised may only commence 20 days after the date of the authorisation.	20																																

Appendix J.5: Acknowledgement of Receipt of Application Form from DEA (Dated: 16 August 2012)

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Fedsure Building · 315 Pretorius Street · PRETORIA
Tel (+ 27 12) 310 3911 · Fax (+ 2712) 322 2682

NEAS Reference: DEA/EIA/0001379/2012
DEA Reference: 14/12/16/3/3/1/671
Enquiries: Mmatlala Rabothata
Tel: 012 395 1768 **Fax:** 012 320 7539 **E-mail:** mrabothata@environment.gov.za

Ismail Banoo
CSIR Consulting and Analytical Services
PO Box 17001
CONGELLA
Durban
4013

Fax: 031 261 2509
Tel: 031 242 2378

PER FACSIMILE / MAIL

Dear Sir/Madam

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (BASIC ASSESSMENT PROCESS) FOR THE PROPOSED PORT NOLLOTH LIGHTHOUSE ON ERF 335 NEAR PORT NOLLOTH, NORTHERN CAPE PROVINCE

The Department confirms having received the application form; details of EAP and Declaration of Interest; and project schedule on 2 August 2012 for environmental authorisation for the abovementioned project. The Application is accepted.

Please include both reference numbers (NEAS Reference and DEA Reference), as listed above, on all documents and correspondence submitted to the Department.

In addition, please consider the following during compilation of reports for this application for environmental authorisation:

- All applicable Departmental Guidelines must be considered throughout the application process. These can be downloaded from the Department's website: www.environment.gov.za, Environmental Impact Management button, listed under "EIA Administration": Integrated Environmental Management Information Series link. These include, but are not limited to, the following topics: Scoping, Environmental Impact Reporting, Stakeholder Engagement, Specialist Studies, Impact Significance, Cumulative Effects Assessments, Alternatives in EIA and Environmental Management Plans.
- Please be advised that in terms of the EIA Regulations and NEMA the investigation of alternatives is mandatory. Alternatives must therefore be identified, investigated to determine if they are feasible and reasonable. It is also mandatory to investigate and assess the option of not proceeding with the proposed activity (the "no-go" option).

- Should water, solid waste removal, effluent discharge, stormwater management and electricity services be provided by the municipality, you are requested to provide this office with written proof that the municipality has sufficient capacity to provide the necessary services to the proposed development. Confirmation of the availability of services from the service providers must be provided together with the reports to be submitted.
- In the reports to be submitted it must clearly be demonstrated in which way the proposed development will meet the requirements of sustainable development. You must also consider energy efficient technologies and water saving devices and technologies for the proposed development. This could include measures such as the recycling of waste, the use of low voltage or compact fluorescent lights instead of incandescent globes, maximising the use of solar heating, the use of dual flush toilets and low-flow shower heads and taps, the management of storm water, the capture and use of rainwater from gutters and roofs, the use of locally indigenous vegetation during landscaping and the training of staff to implement good housekeeping techniques.
- A detailed and complete EMPr must be submitted with the BAR. This EMPr must not provide recommendations but must indicate actual remediation activities which will be binding on the applicant. Without this EMPr the documents will be regarded as not meeting the requirements and will be returned to the applicant for correction.
- The applicant/EAP is required to inform this Department in writing upon submission of any draft report, of the contact details of the relevant State Departments (that administer laws relating to a matter affecting the environment) to whom copies of the draft report were submitted for comment. Upon receipt of this confirmation, this Department will in accordance with Section 24O(2) & (3) of the National Environmental Management Act, 1998 (Act 107 of 1998) inform the relevant State Departments of the commencement date of the 40 day commenting period, or 60 days in the case of the Department of Water Affairs for waste management activities which also require a licence in terms of the National Water Act, 1998 (Act 36 of 1998).
- Should it be necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999), please submit the necessary application to SAHRA or the relevant provincial heritage agency and submit proof thereof with the Basic Assessment Report. The relevant heritage agency should also be involved during the public participation process and have the opportunity to comment on all the reports to be submitted to this Department.

You are required to submit the final site layout plan together with the Final BAR to the Department. All available biodiversity information must be used in the finalisation of the layout plan.

The Environmental Management Programme (EMPr) submitted as part of the application for environmental authorisation must include the following:

- All recommendations and mitigation measures to be recorded in the Final BAR.
- A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
- An open space management plan to be implemented during the construction and operation of the facility.
- A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility including timeframes for restoration which must indicate rehabilitation within the shortest possible time after completion of construction activities to

reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.

- An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
- A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- A traffic management plan for the site access roads to ensure that no hazards would results from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

You are requested to submit two (2) electronic copies (the main report must be separated from the Appendices (each appendix saved separately) (CD/DVD) and two (2) hard copies of both the Draft and Final Report to the Department. The hard copies must be double-sided printed; double-punched and must be bound using a lever arch file (two or four holes).

The EAP must, in order to give effect to regulation 56 (2), before submitting the Environmental Impact Assessment Report to the Department give registered interested and affected parties access to, and an opportunity to comment on the report in writing.

In terms of regulation 67 of the EIA Regulations, 2010 this application will lapse if the applicant (or the EAP on behalf of the applicant) fails to comply with a requirement in terms of the Regulations for a period of six months after having submitted the application, unless the reasons for failure have been communicated to and accepted by this Department.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours sincerely

Mr Mark Gordon
Chief Director: Integrated Environmental authorisations
Department of Environmental Affairs
Letter signed by: Ms Mmatlala Rabothata
Designation: Environmental Officer: Integrated Environmental Authorisations
Date: 16/08/2012

CC:	Mr Vincent Matabane	Transnet Freight Rail	Fax: 086 667 7626
	Mr Sibonelo Mbanjwa	NC DTEC	Fax: 053 831 3530
	Ms Madeleinne Brandt	Richtersveld Local Municipality	Fax: 027 712 8040

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