ORANJEMUND TOWN COUNCIL

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CONTRACT NO: DRFQ/ORTC-04/2019

VOLUME 1

THE CONSTRUCTION OF SERVICES (WATER, SEWER AND ROADS) FOR EXTENSION (4A), ORANJEMUND

OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN (OEMP)

Operational Environmental Management Plan for the operational activities at Borrow Pit C associated with the construction of a new sewer reticulation network, potable water reticulation network and gravel roads for Extension 4A Townships (Oranjemund) – Contract No. DRFQ/ORTC-04/2019

ISSUED BY

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NOTE :

***Bidders are instructed to study this OPERATIONAL ENVIRONMENTAL MANAGEMENT* PLAN (OEMP – Volume 1) in detail. The appointed Contractor will be expected to conform to the requirements as set out in the OEMP. Any cost involved in conforming to the OEMP during construction shall be deemed to be included in bid rates.**

PROJECT INFORMATION

Project Title:	**THE CONSTRUCTION OF SERVICES (WATER, SEWER AND ROADS) FOR EXTENSION (4A), ORANJEMUND**
Project Location:	**ORANJEMUND (KARAS REGION)**
Competent Authority:	**MINISTRY OF ENVIRONMENT AND TOURISM**
Proponent:	**ORANJEMUND TOWN COUNCIL** **PO BOX 178** **ORANJEMUND** **NAMIBIA**
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EMP REVISION STATUS

Version	Date Approved	Revision Details
V1 – Original EMP	5 June 2014	

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Abbreviations

OEMP Operational Environmental Management Plan

EIA Environmental Impact Assessment

EMP Environmental Management Plan

IEO Independent Environmental Officer

OTC Oranjemund Town Council

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GLOSSARY

The definitions given below are for explanatory purposes only.

Alien Species:	It refers to a non-indigenous plant, animal or micro-organism; or an indigenous plant, animal or micro-organism, translocated or intended to be translocated to a place outside its natural range of nature, that does not normally interbreed with individuals of another kind, including any subspecies cultivar, variety, geographic race, strain, hybrid or geographically separate population.
Assessment:	The process of identifying, predicting and evaluating the significant effects of activities on the environment; and the risks and consequences of activities and their alternatives and options for mitigation with a view to minimise the effects of activities on the environment.
Audit:	Regular inspection and verification of operational activities as per the OEMP.
Batch Plant:	Machinery used on site for the mixing and production of concrete and associated equipment and materials.
Bund:	An enclosure designed to hold at least 120% of the contents of a liquid storage vessel, tank or drums to contain any spillage.
Operational Activity:	An operational activity is the physical work undertaken by the Contractor/s, his subcontractors, suppliers or personnel during the operational process.
Operational Environmental Management Plan (OEMP):	A plan that describes how activities that may have a significant effect on the environment (i.e. social and natural environments) is to be managed and/or mitigated and monitored for effectiveness.
Contaminated Water:	Water contaminated by the Contractor's activities, e.g. concrete water and runoff from plant/personnel wash areas, etc.
Contractor:	The principal person or company, including all subcontractors, undertaking the operations of the project as appointed by the Proponent or his appointed representative.
Contractor's Camp:	Refers to all storage stockpiles sites, site offices, container sites, other areas required to undertake operations and rest areas for staff or management.
Independent Environmental Officer (IEO):	It is a suitably qualified independent environmental assessment practitioner appointed by the Proponent or his representative. The IEO will be responsible for the monitoring, reviewing and verifying of compliance with the OEMP by the Contractor.
Environmental Site Manager (ESM):	A suitably qualified professional to be appointed by the Contractor who oversees the on-site operational activities and ensure that all environmental specifications and OEMP obligations are met on a day-to-day basis.

Emergency Situation	An incident, which potentially has the ability to significantly impact on the environment, and which, could cause irreparable damage to sensitive environmental features. Typical situations entail amongst others the: • Spill of petroleum products and lubricants into an aquatic system or sensitive habitat; • Potential damage, erosion and slumping of unstable river embankments or drainage channels; • Potential event of impeding the continuous flow of water to downstream water users dependant on the flow; and • Dangerous situation where animals and/or people can be injured by any activity emanating from the operations or rehabilitation of the project implementation.
Environment:	The complex of natural and anthropogenic factors and elements that are mutually interrelated and affect the ecological equilibrium and the quality of life, including : (a) The natural environment that is the land, water and air, all organic and inorganic material and all living organisms; and (b) The human environment that is the landscape and natural, cultural, historical, aesthetic, economic and social heritage and values.
Environmental Impact Assessment (EIA):	The process of examining the environmental effects of a development as prescribed by the Environmental Impact Assessment Regulations (GN. No. 30 of 2012) for activities listed as List of Activities which may not be undertaken without an Environmental Clearance Certificate from the Environmental Commissioner (GN. No. 29 of 2012).
Hazardous Substance:	Any substance, mixture of substances, product or material declared in terms of section 3(1) of the Hazardous Substances Ordinance, 1974.
Listed Activity:	An activity listed in terms of section 27(2) of the Environmental Management Act and the List of Activities which may not be undertaken without an Environmental Clearance Certificate from the Environmental Commissioner (GN. No. 29 of 2012).
Monitoring:	Regular inspection and verification of operational activities for degree of compliance to the OEMP.
No-Go Areas:	Areas identified as being environmentally sensitive in some manner and demarcated on plan, and on the Site with pegs or fencing and which are out of bounds to unauthorised persons. Authorisation must be obtained prior to entry.
Project Engineer:	The person(s) who represents the Oranjemund Town Council (the Proponent) and are responsible for the technical and contractual implementation of the works to be undertaken by the appointed contractors.

Proponent:	A person or legal entity who propose to undertake a listed activity.
Resident Engineer (RE):	A person who represents the Project Engineer on Site and is responsible for the technical and contractual implementation of the works to be undertaken.
Search and Rescue:	The location and removal of specified plant species, without unnecessary damage, and their transfer to a specified location (on-site nursery).
Solid Waste:	All solid waste, including operational debris, chemical waste, excess cement/concrete, wrapping materials, timber, tins and cans, drums, wire, nails, food and domestic waste.
Species of Special Concern:	Those species listed in the Endangered, Threatened, Rare, Indeterminate, or Monitoring categories of the South African Red Data Books, and/or species listed in Globally Near Threatened, Nationally Threatened or Nationally Near Threatened categories (Barnes, 1998).
Specification:	A technical description of the standards of materials and workmanship that the Contractor is to use in the works to be executed, the performance of the works when completed and the manner in which payment is to be made.
Topsoil:	The top 150 mm of soil (topsoil) and root material of cleared vegetation.

1. INTRODUCTION

1.1 BACKGROUND

The Project entails the extension of existing municipal services to service the township Extension 4A, for which purpose base gravel is required, which will be obtained from Borrow Pit C, an existing quarry located to the west of Oranjemund Town within the NAMDEB Diamond Mining Area.

1.2 PROJECT'S ENVIRONMENTAL REQUIREMENTS

Following the promulgation and coming into force of the Environmental Management Act (No. 7 of 2007) during February 2012 (GN. No. 28 of 2012), 'quarry activities' was subjected to an environmental impact assessment process for the purpose of obtaining an Environmental Clearance Certificate (ECC).

In meeting the mentioned requirement, an application for an ECC was obtained from the Ministry of Environment and Tourism by the Oranjemund Town Council during September 2016, as extended during February 2020.

In line with the Environmental Management Act (No. 7 of 2007) and conditions stipulated by the ECC, removal of base gravel (i.e. quarrying activities) requires and operational management plan, i.e. the content of this document.

This OEMP forms part and parcel of the Project as presented in the BID Documentation (DRFQ/ORTC-04/2019) and should thus accordingly be considered in the cost calculation.

1.3 THE OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

1.3.1 Overview of the OEMP

The purpose of the OEMP is to provide specifications for "good environmental practice" for application during operations on site and surrounding areas as they relate to both the social and the natural environments.

As such, the OEMP provides Site specific mitigation and management measures for implementation by the appointed contractor in order to ensure that potential impacts are either avoided or minimised.

In order to ensure a holistic approach to the management of environmental impacts *(i.e. both social environment and the natural environment)* during the operational activities, this OEMP sets out the methods by which proper environmental controls are to be implemented by the Contractor/s and all other parties involved, and monitored by the Independent Environmental Officer (IEO) and Environmental Site Manager (ESM).

The guidelines for the execution of an OEMP include the following:

- Responsibilities for the environmental performance of the proposed operations are

communicated to the contractor's on-site staff;

- Communications channels to report on environmental performance, problems and priorities are in place;
- A monitoring schedule is established to identify potential negative environmental impacts associated with the operational activities;
- Method Statements (mitigation measures) are implemented to avoid or minimise the identified negative environmental impacts (rehabilitation of eroded areas; bush clearings; complaints from the public), as well as to enhance the positive impact on the environment (employment; support of conservation efforts); and
- Monitoring programme or schedule is developed to track the plans that have been implemented so as to ensure the effectiveness of the plan.

The provisions of this OEMP are binding on the Proponent and its appointed Contractor/s until such time that a compliance approval has been granted by the IEO. Any third party appointed by the Proponent must comply with the conditions of this OEMP.

This OEMP has been designed to suite the particular operational activities and needs of the proposed project, and incorporates the following:

- Removal of vegetation and topsoil;
- Fuel storage on-site;
- Sewage management;
- Waste management;
- Borrow-pit management;
- Specifications with which the Contractor/s shall comply in order to protect the environment from the identified impacts; and
- Actions that shall be taken in the event of non-compliance.

1.3.2 Format of the OEMP

The OEMP is designed to fit with the engineering contract documentations. The OEMP consists of three parts:

- **Part 1** contains the **Introduction** providing a brief description of the OEMP and the Project;
- **Part 2** deals with **Compliance Monitoring** stipulating the general requirements, responsibilities of the different role players, financing of environmental control, dispute resolution, and requirements for monitoring; and
- **Part 3** details with the **Environmental Specifications** that set out the environmental objectives and targets with which the Contractor/s shall comply.

1.3.3 Amendments to the OEMP

The OEMP is a dynamic document subject to similar influences and changes as are created by variations to the provisions of the project specification. This document should thus be seen as open-ended, requiring regular review and updating via the correct channels in order for it to effectively guide environmental management of this operation.

Any party involved with the Project can suggest changes to the OEMP via the IEO and Project Engineer. Approved changes will be minited and drafted into an updated OEMP in the form of an appendix or amendments. This should be clearly stipulate in the OEMP to avoid confusion (see ***EMP Revision***).

1.4 THE PROPOSED PROJECT

1.4.1 Brief Description

The Project entails the construction of a new sewer reticulation network, potable water reticulation network, storm water infrastructure, and gravel roads for Extension 4A Township, as an extension of the existing municipal infrastructure service being or to be provided by the Oranjemund Town Council.

For purpose of road construction, base material is required, which will be sourced from Borrow Pit C, an existing quarry located to the west of Oranjemund Town within the NAMDEB Diamond Mining Area.

1.4.2 Need for New Services

The Oranjemund Town Council has allocated funds for the extension of Oranjemund Town's sewer and water networks, as well as the provision of storm water infrastructure and gravel roads for the township of Extension 4A.

The need and desirability for the proposed new services are based on the demand for serviced land within the town of Oranjemund experiencing an increase in the demand for land since proclamation.

1.4.3 Project Site Locality

The Town of Oranjemund is located close to the mouth of the Orange River within the far south-western parts of the Karas Region (see Figure 1-1).

The Project includes two different sites as indicated by Figure 1-2, while the locality of Borrow Pit C is indicated by Figure 1-3.

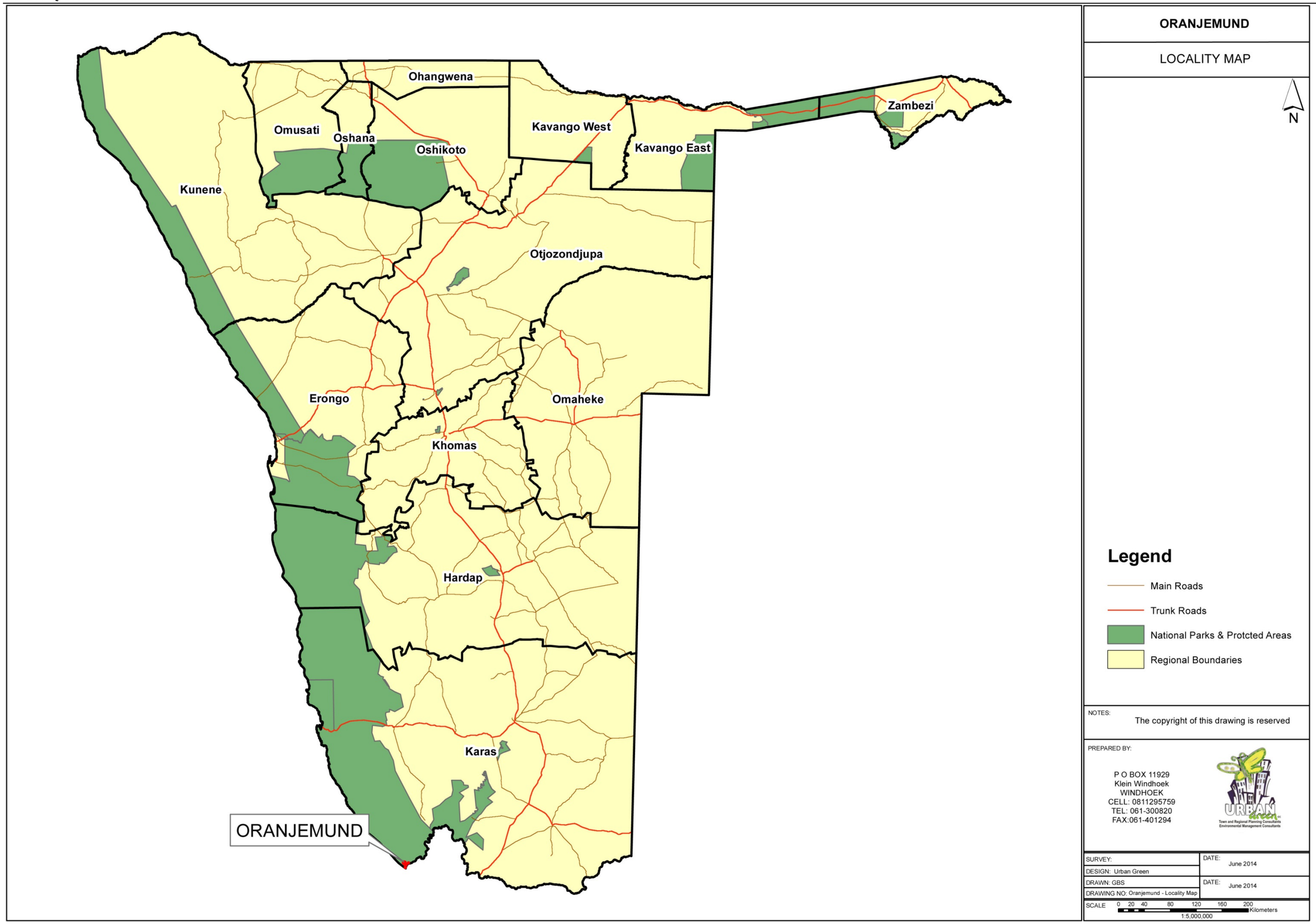

Figure 1-1 - Locality Map (National)

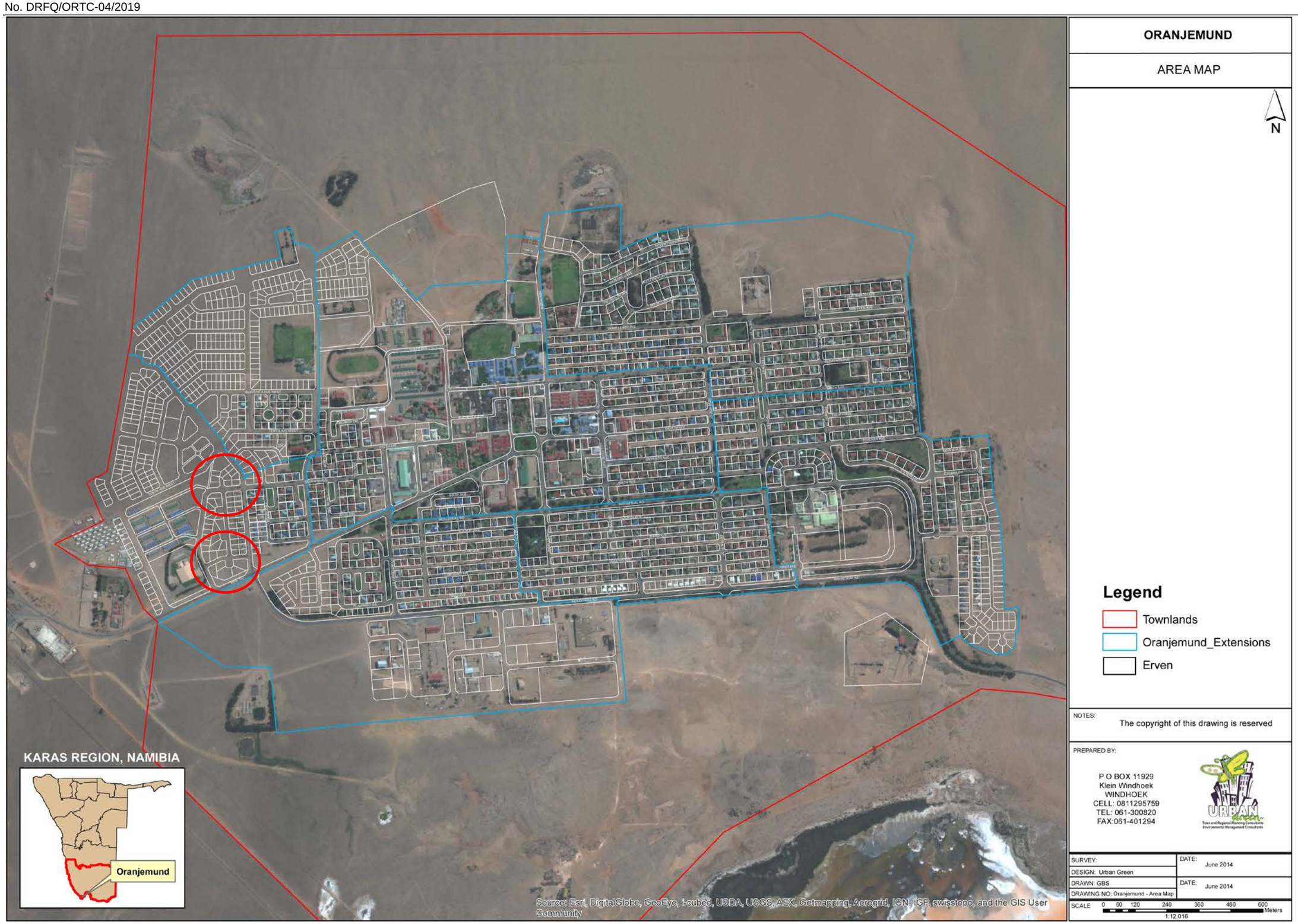

Figure 1-2 – Locality (Local)

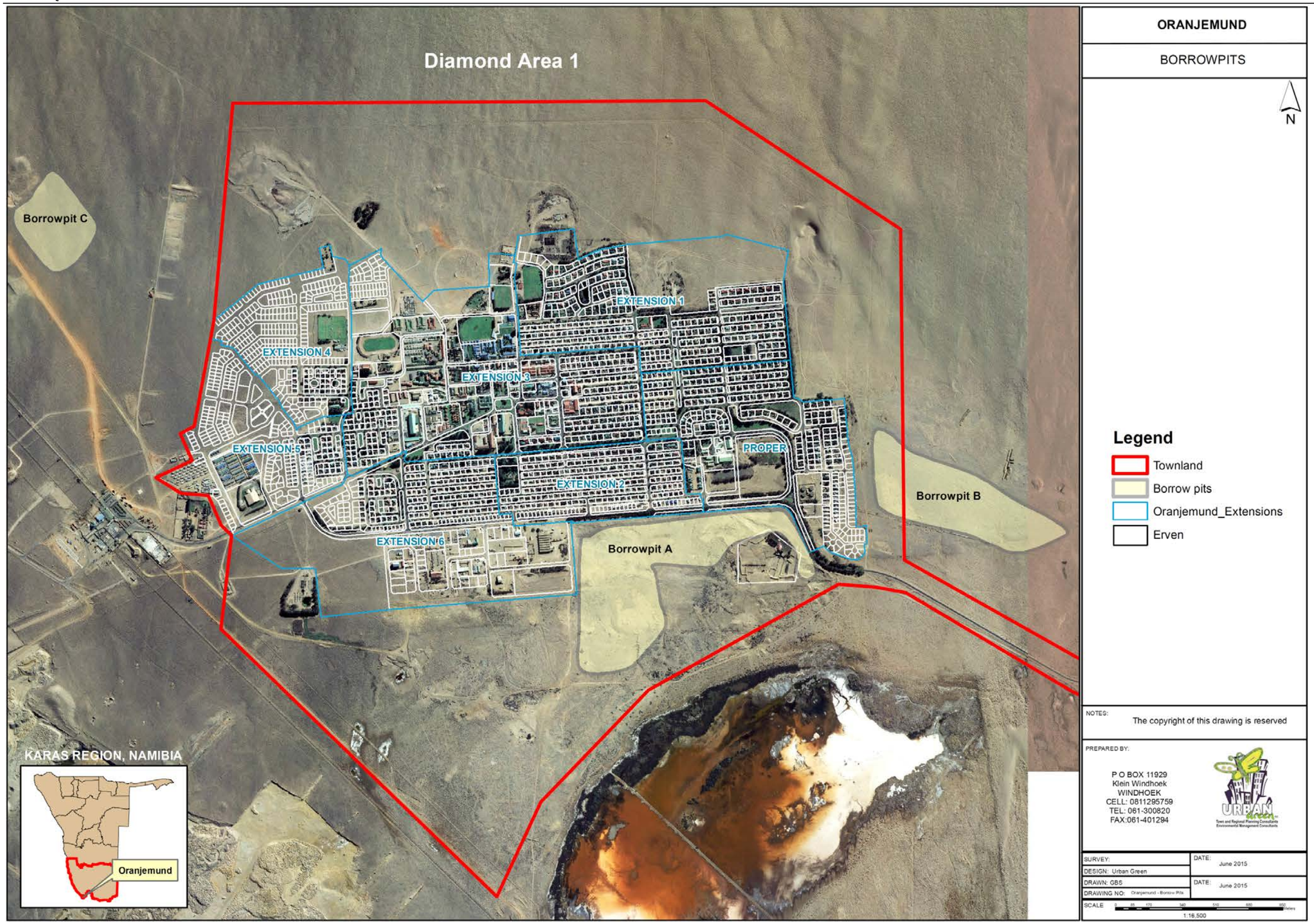

Figure 1-3 – Locality of Borrow Pit C

1.5 THE RECEIVING ENVIRONMENT

1.5.1 Socio-economic Environment

The town of Oranjemund is a sustainable and well-maintained urban area providing in the various activities and services. The Town consists of a prominent residential component providing accommodation to the approximately 9,000 residents. Housing provided range from single dwelling units with a density of one dwelling per erf to higher residential hostels. Two prominent business nodes exist, the Central Business area situated within the centre of town accommodating the larger retail activities. The Eastgate Shopping Centre is located to the south-eastern part of town also providing in a few business activities. A well-established industrial area has been established providing not only in the demand of NAMDEB, but also to a large extend to the private demand of the residents. Evident of all mining towns, Oranjemund consists of a very well-established recreational facilities providing in a variety of sports (cricket, rugby, soccer, etc.). Institutional activities provided consist of churches, crèche, schools, etc. All of these activities are provided with the basic municipal services such as water, electricity, sewage, roads and telecommunication.

Due to the mining town nature of the town, there are similar proportions of younger and older people, with few residents over the age of 60. There is also a higher ratio of males to females, and a lower percentage of the population in the high school/tertiary education age bracket.

Currently the Oranjemund Town Council, with the assistance from NAMDEB Diamond Corporation (Pty) Ltd, is responsible for the administering of the town, as well as provision of all municipal services to the community.

Although Oranjemund was proclaimed a town it remains a restricted area until such time as Government Notice 97 of 2000 (Declaration of Diamond Area No 1 as restricted area) is expressly withdrawn by NAMDEB.

1.5.2 The Bio-physical Environment

The area around Oranjemund forms part of the Namib Desert habitat and is characterised by low rainfall, strong winds and fog precipitation.

(i) Flora and Fauna

The vegetation in the Oranjemund area is part of the desert and succulent steppe, which forms the transition between the Richtersveld and southern Namib Desert flora. The species of the desert and succulent taxa are adapted to low moisture supply and are able to endure strong winds and sand-blasting conditions. The fog provides the necessary moisture for the plants to survive in this arid climate.

(ii) Orange River Mouth System

The Orange River Mouth has been declared a Wetland of International Importance under the RAMSAR Convention. The wetland vegetation of the Orange River Mouth is a dynamic system naturally adapted to drastic environmental changes associated with floods. The wetlands are

composed of various components of fresh, salt and brackish water, bare sand and mud flats, reed beds, grasses and saltmarsh, as well crops and vegetation. The Orange River Mouth system provides a habitat for wetland and sea birds and is the only coastal wetland between Sandwich Harbour and the Olifants River mouth, hence its importance to migrating birds.

(iii) Archaeology

The Oranjemund area and the Orange River Mouth are known for their important archaeological sites.

(iv) Climate

The climate of the Oranjemund area is mostly windy, often cold and wet as a result of its proximity to the strong winds of the South Atlantic anticyclonic system and the associated cold upwelling of the Benguela current.

Temperatures are moderate and show little variation. The mean monthly temperatures vary from almost 20ºC in January and February to 14ºC in August. Occasionally, under Berg wind conditions, extreme temperature maxima of 35ºC occur in Oranjemund, generally only experienced in winter.

Fog occurs on more than 100 days per annum at Oranjemund, mainly in the period between February and April.

Oranjemund and the lower part of the Orange River are situated within the winter rainfall of southern Africa having an average rainfall of 51mm per annum. The highest precipitation rate has been recorded between May and August, and the driest month, with an average of 1mm is January.

For most of the year a southerly sea breeze is predominant. The strong coastal southerly winds are responsible for extensive sand movements and scouring of bedrock topography. The average wind speed ranges between 20-30 kph, however wind speeds of up to 100 kph can be experienced.

The potential annual evaporation is approximately 2,600mm, and shows a maximum in the summer progressively declining during the autumn, winter and spring.

(v) Groundwater

The aquifer supplying Oranjemund with water is located 1 to 4km east of the Oppenheimer Bridge on the north bank of the Orange River. Previous other studies showed that no water-bearing paleo-channels exist in a 5km stretch that extends northwards from the north bank of the Orange River Mouth and approximately 1km inland.

Potable groundwater is found in the vicinity of the Riding Club, which is situated between the Oppenheimer Bridge and Oranjemund.

(vi) Topography and Surface Water Runoff

The topography of the larger area is flat draining towards the Orange River located to the south of Town. No permanent or ephemeral streams are located in and around town.

(vii) Geology & Soils

The generalised profile shows windblown sand underlain by a thin unit of calcrete.

The soils of the Sperrgebiet are mainly poorly formed, immature desert soils as a result of the extremely arid climate, low rainfall and high intensity winds.

1.5.3 Description of Borrow pit Site C

Although portions of the Borrow pit Site C are disturbed (e.g. current active borrow pit area; Oranjemund-Kolmanskop Road; mining area fences) by various anthropomorphic activities, the general area is relatively undisturbed and well vegetated.

Photo plate 1 - Borrow pit Site C – view of the current excavation activity with Oranjemund and Mining Area 1 infrastructure towards the south. This site is well vegetated and dominated by shrubs and grass tufts.

The proposed extension of the Borrow pit Site C southwards would cover an area of relatively uniform habitat and homogenous vegetation and not viewed as particularly unique as large areas of similar habitat and vegetation are found throughout the area (Photo plate 2).

Photo plate 2 - Well vegetated, homogenous, southern portion of the Borrow pit Site C

2. ADMINISTRATION AND REGULATION OF ENVIRONMENTAL OBLIGATIONS (COMPLIANCE MONITORING)

2.1 MANAGEMENT STRUCTURE

Details of the management structure are presented below. All official communication and reporting lines including instructions, directives and information shall be channelled according to the organisational structure presented below.

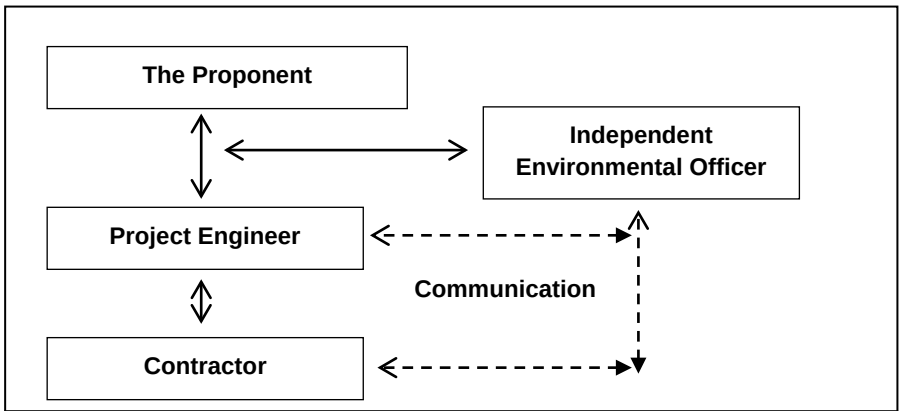

Figure 2.1 – OEMP Implementation Organisational Structure

2.2 ROLES AND RESPONSIBILITIES

The implementation of this OEMP requires the involvement of several stakeholders, each fulfilling a different but vital role to ensure sound environmental management during the operations.

2.2.1 Proponent (Oranjemund Town Council)

The Proponent is ultimately responsible for the implementation of the OEMP and the financial cost of all environmental control measures. The Proponent must ensure that any person acting on their behalf complies with the conditions/specifications contained in this OEMP. The Proponent is also responsible for the appointment of a Project Engineer, Contractor and Independent Environmental Officer (IEO) to the Project.

The Proponent shall address any site problems pertaining to the environment at the request of the Project Engineer and/or the IEO.

2.2.2 Project Engineer (Namibia Consulting Engineers & Project Managers (Pty) Ltd)

The Project Engineer is responsible for the engineering design of the various municipal engineering services and management of the on-site activities from the side of the Proponent.

The Project Engineer shall as part of his duties address any site problems pertaining to the environment at the request of the Proponent and/or the IEO. The Project Engineer shall have the responsibility to ensure that the Proponent's responsibilities are executed in compliance with the OEMP and/or any other documentation proposed from the Proponent and/or IEO. Any on-site

decisions with the appointed contractor/s having relevance to environmental matters are ultimately the responsibility of the Project Engineer. The Project Engineer shall assist the IEO where necessary and shall have the following responsibilities in terms of the implementation of this OEMP:

- The Engineer, along with the IEO and RE, must obtain, examine and approve Method Statements.
- Promptly issuing instructions requested by the IEO and Project Engineer to the Contractor/s.
- Deduct environmental penalties from certificate payments as agreed and instructed by the IEO.
- Assisting the IEO in making decisions and finding solutions to environmental problems that may arise during the operations.
- Oversee the responsibilities of the Project Engineer and Contractor/s, and assist in all required matters.
- Monitor and verify that the OEMP are adhered to at all times and take action if specifications are not followed.
- Order the removal of person(s) and/or equipment not complying with the OEMP specifications.
- Provide input into the IEO's on-going internal review of the OEMP.
- Communicate environmental issues to the IEO.

2.2.3 Independent Environmental Officer (Urban Green cc)

The Independent Environmental Officer (IEO) is acting on behalf of the Proponent and shall communicate directly with the Project Engineer and/or Proponent. The IEO shall be responsible for monitoring, reviewing and verifying the Contractor's/ Contractors' compliance with the OEMP during the operational phase. The IEO shall have the right to investigate the site at any time during the project phases and unexpected visits will be allowed.

The IEO duties shall include, *inter alia*, the following:

- The IEO shall make recommendations independent of the Project Engineer; take immediate action on Site when (i) prescriptive conditions are violated, or in danger of being violated, and to inform the Project Engineer, Resident Engineer/s and Contractor/s immediately of the occurrence and to take action, e.g. issuing of penalties; and (ii) where clearly defined and agreed 'no go' areas are violated, or in danger of being violated, and to inform the Project Engineer, Resident Engineer/s and Contractor/s of the occurrence and action taken.
- Advise the Contractor and/or the Project Engineer on environmental issues within the defined site's boundaries.

- Undertake regular site visits to ensure compliance with the OEMP and verify that environmental impacts are kept to a minimum throughout the operations (i.e. operational monitoring).
- Keep a photographic record of progress on site from an environmental perspective.
- Assist the Contractor and/or the Project Engineer in finding environmentally acceptable solutions to operational problems as and if any arise.
- Recommend additional environmental protection measures should this become necessary.
- Keep a register of complaints and dealing with any community issues or comments.
- Report any incidents to the Proponent and Engineer that may or have caused damage to the environment or which is in breach of the OEMP.
- Prepare an environmental audit report at the conclusion of the operational phase.
- The IEO, along with the Engineer and RE, must obtain, examine and approve Method Statements.
- Ordering the removal of, or issuing penalties for person/s and/or equipment not complying with the specifications of the OEMP.
- Involve specialists to advise on environmental management issues as they emerge during the operational phase.

2.2.4 Contractor (Mandume King Construction cc)

The Contractors shall have the following responsibilities:

- Implement and monitoring that all provisions of the OEMP are adhered to at all times and taking action if specifications are not followed. If the Contractor encounters difficulties with the specifications, he/she must discuss alternative approaches with the IEO and/or the Project Engineer prior to proceeding.
- Monitor and verify that the environmental impacts are kept to a minimum and mitigations proposed are applied throughout the operations.
- Make and keep personnel aware of environmental issues and to ensure they show adequate consideration to the environmental sensitivities.
- Report any incidents of non-compliance with the OEMP to the Project Engineer and/or the IEO.
- Keep a register of complaints on-site and record community comments and issues, and the actions taken in response to these complaints.
- Rehabilitate any sensitive environments damaged due to his/her negligence. This shall be done in accordance with the IEO and Project Engineer's specifications and instructions.

- The Contractor shall ensure that no damage whatsoever is caused as a result of his operations or otherwise by his workmen in the areas adjacent to the site.
- The Contractor shall ensure that his workmen are properly instructed and carry out the requirements of this OEMP
- The Contractor will be held liable for all unauthorised damage caused by him or any of his workmen or Sub-Contractors.

Failure to comply with the OEMP from the side of the contractor may result in penalties (Appendix C) and reported non-compliance may result in the suspension of work or termination of the contract by the Project Engineer on instruction from the Proponent.

2.3 DISPUTES AND DISAGREEMENTS

Any disputes or disagreements between role players on Site (with regard to environmental management) will be referred to the Project Engineer and the IEO. If no resolution on the matter is possible it must be presented to the Directorate of Environmental Affairs (Ministry of Environment and Tourism).

2.4 OEMP MONITORING RESPONSIBILITIES

The day-to-day monitoring and verification that the OEMP is being adhered to shall be undertaken by the appointed Contractor's Environmental Site Officer. In this regard, the Environmental Site Officer will keep record and submit a **weekly report** to the IEO until after all rehabilitation work has been completed.

The IEO shall visit and inspect the site at least once a month to ensure that correct operational procedures are being implemented and that the Contractor/s is complying with the environmental specifications of the OEMP. Additional site inspections by the IEO may be required during the initial and final stages of the operations. The IEO shall address any queries to the Project Engineer. If the queries cannot be resolved at this level, they shall be referred to the Proponent, if necessary.

The IEO will carry the responsibility of monitoring the implementation of the OEMP on Site, assisted by the Project Engineer and appointed Contractor's Environmental Site Officer. In this regard, the IEO will submit a monthly monitoring report to the DEA until after all rehabilitation work has been completed. A pro-forma monitoring report is contained in Appendix B.

Regular meetings will be held between the Project Engineer, Environmental Site Officer and the IEO. The purposes of the meetings shall be:

- To establish the suitability of the Contractor's methods and machinery in an effort to lower the risk involved for the environment.
- To discuss possible non-conformance to OEMP guidelines or environmental legislation.
- To assess the general state of the environment on site and discuss any environmental

problems which may have materialised.

- To accommodate the local community in the decision-making process regarding social and environmental issues on site.

The monthly report should include:

- A description of exceptional conditions on site whether they be meteorological, personnel related, machinery related, or otherwise stipulated;
- A description of any environmental accident or developments which could potentially develop into a non-conformance event by the Contractor; and
- Minutes from the meetings.

Any non-compliance with the agreed procedures of the OEMP is a transgression of the various statutes and laws that define the manner by which the environment is managed. Non-conformance identified during monitoring must be recorded. Non-conformance reports will describe, in detail, the cause, nature and effects of any environmental non-conformance by the Contractor and could stand as evidence should legal action be required. If possible photographs should also be included as evidence to substantiate the report. This report will also suggest mitigation measures to correct the non-conformance (if necessary) and contemplate revisions to any of the strategies used in the operational phase, whether they pertain to monitoring or to operational methods used on site. The non-conformance shall be documented and reported as part of the Monthly Monitoring Report.

2.5 POST-OPERATIONAL ENVIRONMENTAL AUDIT

A post-operational environmental audit must be carried out by the IEO in order to fulfil conditions of this OEMP and requirement of an Environmental Completion Statement (see point 2.7).

2.6 NON COMPLIANCE AND PENALTIES

The IEO shall issue the Contractor/s a notice of non-compliance whenever transgressions are observed having relevance to the OEMP. The contractor/s shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken.

The Contractor is deemed not to have complied with the OEMP if, inter alia:

- There is evidence of contravention of the OEMP specifications within the boundaries of the site, site extensions and roads;
- There is contravention of the OEMP specifications which relate to activities outside the boundaries of the site;
- Environmental damage arises due to negligence;
- Operational related activities take place outside the defined boundaries of the site;

- The Contractor/s fails to comply with corrective or other instructions issued by the IEO and/or Project Engineer within a specific time period; and/or
- The Contractor/s fails to respond adequately to complaints from the public.

It is recommended that the Project Engineer introduce penalties for the following less serious violations and any others determined during the course of work as detailed below:

- Littering on site;
- Lighting of illegal fires on site;
- Persistent or un-repaired fuel and oil leaks;
- Any persons, vehicles or equipment related to the Contractor's operations found within the designated "no-go" areas;
- Excess dust or excess noise emanating from site;
- Possession or use of intoxicating substances on site;
- Any vehicles being driven in excess of designated speed limits;
- Removal and/or damage to fauna, flora or cultural or heritage objects on site;
- Urination and defecation anywhere except at designated facilities; and/or
- Where environmental damage is caused or a pollution incident, and/or failure to comply with any of the environmental specifications contained in the OEMP, the Contractor shall be liable.

The following violations, and any others determined during the course of work, should be penalised:

- Hazardous chemical/oil spill and/or dumping in non-approved sites;
- Damage to sensitive environments;
- Damage to cultural and historical sites;
- Unauthorised removal/damage to indigenous trees and other vegetation, particularly in identified sensitive areas;
- Uncontrolled/unmanaged erosion;
- Unauthorised blasting activities (if applicable);
- Pollution of water sources;
- Unnecessary removal or damage to trees; and/or
- Excessive dust and noise pollution.

A system of penalties shall be implemented to ensure compliance with the OEMP (see Appendix C). Where the Contractor/s inflicts irreparable damage upon the environment or fails to comply with any of the environmental specifications of the OEMP (within 10 days) this would constitute a breach of contract for which the Contractor/s may be liable to pay a penalty.

The system of penalties shall be implemented in the following way:

- Penalties shall be issued per incident and individual at the discretion of the IEO;
- Penalties shall be issued in addition to any remedial costs incurred as a result of non-compliance with the environmental specifications;
- The IEO shall not collect the penalties from individuals, but shall inform the Project Engineer and Contractor of the contravention, the individual's identity and the amount of the penalties to be paid by the responsible Contractor; and
- Penalties, including but not limited to those activities presented in Appendix C, shall be imposed by the IEO on the Contractor, his staff and/or the subcontractors' staff for contravention of the environmental specifications. Where there are ranges, the amount shall depend on the severity and extent of the damage done to the environment.

Failure by any employee of the Contractor or their sub-contractors to show adequate consideration to the environmental aspects of the contract shall be considered sufficient cause for the Project Engineer to have that employee removed from the site. The IEO may, through the Project Engineer, also order the removal of equipment that is causing continual environmental damage.

2.7 ENVIRONMENTAL COMPLETION STATEMENT

An Environmental Completion Statement will be prepared by the IEO for submission to the Department of Environmental Affairs indicating completion of the project and compliance with the OEMP and conditions. This statement will be prepared after the final audit after the rehabilitation phase.

2.8 EMERGENCY PREPAREDNESS

The Contractor shall compile and maintain environmental emergency procedures to ensure that there will be an appropriate response to unexpected or accidental actions or incidents that will cause environmental impacts, throughout the operational period. Such activities may include, inter alia:

- Accidental discharges to water and land;
- Accidental exposure of employees to hazardous substances;
- Accidental fires;
- Accidental spillage of hazardous substances;
- Accidental toxic emissions into the air; and/or

- Specific environmental and ecosystem effects from accidental releases or incidents.

These plans shall include:

- Emergency organisation (manpower) and responsibilities, accountability and liability;
- A list of key personnel and contact details;
- Details of emergency services available (e.g. the fire department, spill clean-up services, etc.);
- Actions to be taken in the event of different types of emergencies;
- Incident recording, progress reporting and remediation measures required to be implemented; and/or
- Information on hazardous materials, including the potential impact associated with each, and measures to be taken in the event of accidental release.

2.9 ENVIRONMENTAL AWARENESS TRAINING

The Contractor/s shall ensure that its employees and any third party who carries out all or part of the Contractor's obligations are adequately trained with regard to the implementation of the OEMP, as well as regarding environmental legal requirements and obligations. Training shall be conducted by the Contractor's Environmental Site Manager.

The purpose of this environmental training is to provide a general explanation of sustainable environmental practises, but also to explain the content of the OEMP, the relevance thereof and how it will be implemented through monitoring. The environmental specifications as per Part 3 of this OEMP should clearly be explained to all the Contractors and their site staff, as well as non-compliance to it and related penalties.

The Contractor/s shall ensure that adequate environmental training takes place. All employees must be given an induction presentation on environmental awareness and the content of the OEMP. The presentation needs to be conducted in the language of the employees to ensure it is understood.

The environmental training shall, as a minimum, include the following:

- The mitigation measures required to be implemented in case of an emergency (see point 2.8);
- Environmental legal requirement and obligations in conducting their work on site;
- Defining the identified no-go areas;
- The importance of not littering;
- The importance of using supplied toilet facilities;
- The need to use water sparingly;

- Details of and encouragement to minimise the production of waste and re-use, recover and recycle waste where possible; and/or
- Details regarding archaeological and/or historical sites which may be unearthed during operations and the procedures to be followed should these be encountered.

2.10 INFORMATION BOARD(S)

The Contractor/s shall be responsible for erecting information boards and should be agreed by the Project Engineer and IEO.

Information boards should be placed at conspicuous locations at the different sites and along the material transportation routes. The contents of the information board shall be provided by the Project Engineer and will essentially be to advise the public of the operation and the prohibition on entering certain areas. The information board shall apart from the details of the Contractor also provide the name and contact number of the Project Engineer and the IEO to ensure that the public has access to both the Project Engineer and IEO to ask for information and/or to lodge any complaints.

2.11 METHOD STATEMENTS

Method statements from the Contractor/s will be required for specific sensitive actions on request of the authorities or IEO. A method statement forms the baseline information on which sensitive area work takes place and is thus considered a “live document” in that modifications can be negotiated between the Contractor/s and IEO if or as required. The Contractor (and, where relevant, any subcontractors) must also sign the Method Statement, thereby indicating that the works will be carried out according to the approved methodology. Changes in the methodology must be reflected by amendments to the original approved Method Statement. Amendments must be signed by both the IEO and Project Engineer, denoting that the change is environmentally acceptable. The Contractor/s must also sign the amended Method Statement.

All method statements will form part of the OEMP documentation and are subject to all terms and conditions contained within the OEMP main document. The Method Statement (see Appendix A) shall cover applicable details with regard to:

- Operational procedures;
- Materials and equipment to be used;
- How and where materials will be stored;
- The containment of accidental leaks or spills;
- Timing and location of activities; and
- Any other information deemed necessary by the IEO.

A method statement describes the scope of the intended work in a step-by-step manner in order for the IEO and/or Project Engineer to understand the Contractor’s intentions. This will enable

them to assist in devising any mitigation measures, which would minimise environmental impact during these tasks. The method statement should also clearly stipulate mitigation methods of the intended works, against which the contractor's performance will be measured. For each instance wherein it is requested that the Contractor/s submit a method statement to the satisfaction of the IEO and/or Project Engineer, the format should clearly indicate the following:-

- What - a concise, description of the task/work to be undertaken;
- How - a detailed description of the process of work, methods, materials and mitigation strategies;
- Where - a description/sketch map of the locality of work (if applicable); and
- When - the sequencing of actions with due commencement dates and completion date estimates.

The Contractor must submit the method statement two weeks before any particular activity is due to start, especially with respect to impacts on sensitive ecosystems. Work may not commence until the method statement has been accepted by the IEO, and clearly communicated to the workforce. The Contractor/s shall, except in the case of emergency activities, allow 14 days for consideration and approval of the Method Statement. The IEO may require changes to a Method Statement if the proposal does not comply with the specifications or if, in the reasonable opinion of the Project Engineer and/or IEO, the proposal may result in damage to the environment in excess of that permitted by the specifications. Approved Method Statements shall be communicated to all relevant personnel.

For this project, all Method Statements listed below (i.e. not strike through), shall be provided by the Contractor/s before the activity commences:

- Bunding
    - Method of bunding for static plant and bulk fuel storage.
    - Method of camp establishment and fencing
- Location and layout of the Contractor's Camp.
    - Method of installing fences required for working areas and Contractor's Camp.
- Concrete batching
    - Location, layout and preparation of concrete batching facilities, including the methods employed for mixing of concrete including the management of runoff water from such areas.
- Bulk earthworks
    - Location, layout, silt/sediment management and the management of runoff from bulk earthworks areas.

- Demolition
    - Proposed method of demolition, including handling and disposal of materials.
- Dust
    - Method of dust control protocol.
- Fire and hazardous substances
    - Method of handling and storage of hazardous wastes.
    - Method of emergency spillage procedures and compounds to be used.
    - Method of emergency procedures for accidental fire.
    - Method of disposal of hazardous materials.
    - Method of clean-up operations after fuel spills.
    - Method of refuelling vehicles.
- Protection of archaeological resources
    - Methods for dealing with archaeological resources in the event that any are found.
- Protection of environmentally sensitive resources (fauna and flora)
    - Methods for dealing with conservation areas or areas identified as environmentally sensitive requiring protection.
    - Locality and preparation of onsite nursery to house vegetation relocated from operations areas or propagated locally for replanting purposes.
    - Details of methods dealing with the identification, transportation and transplanting of flora species of conservation value.
    - Details of methods dealing with the identification, capture and relocation of fauna species of conservation value.
- Rehabilitation
    - Method of rehabilitation of disturbed areas after operations is complete.
    - Layout and preparation of settlement ponds and sumps.
- Solid waste management
    - Method of solid waste control and removal of waste from Site.
    - Details of materials imported to the Site (where applicable).
- Topsoil handling and stockpiling
    - Details on the method of stripping, handling and stockpiling of topsoil.
- Wash areas
    - Location, layout, preparation and operation of all wash areas.

- Storm water management
    - Details of how storm water is to be handled on Site.

See Appendix A for more information on the Method Statement and Pro-forma Method Statement.

2.12 RECORD KEEPING

All records related to the implementation of this management plan (e.g. site instruction book, daily diary, induction records, method statements) must be kept together in an office where it is safe and can be retrieved easily. All relevant records should be kept for a minimum of two years after operations and should at any time be available for scrutiny by any relevant authority or stakeholder.

It is recommended that photographs (fixed point photographs for better comparisons before/during/after) are taken of the site prior to, during and immediately after operations as a visual reference. These photographs should be stored with related documents and other records related to this OEMP. The pre-operations site photo record done by the IEO for Borrow Pit C is attached as Appendix D.

A list of other reports to be kept on site for this project is listed below (i.e. not strike through) -

- ~~Final design documents and diagrams issued to and by the Contractor/s;~~
- All communications detailing changes of design/scope that may have environmental implications;
- Occupational health and safety reports;
- Complaints register;
- Incident and accident reports;
- Emergency preparedness and response plans;
- Crisis communication manual;
- Monthly site meeting minutes during the operational phase;
- All relevant permits; and
- All method statements from the Contractor, as applicable (see point 2.11).

3. ENVIRONMENTAL SPECIFICATIONS

3.1 SCOPE

These specifications cover the requirements for controlling the impact of operational activities on the natural and social environment within and adjacent to the boundaries of the site.

3.2 OPERATIONS

3.2.1 Site Division

The IEO and Project Engineer shall be advised of the area that the Contractor/s intends using for his site establishment. For this Project, no contractor's camp is allowed within the NAMDEB Mining Area.

Apart from operating one excavator and two trucks (as well as operators), as well as storing the excavator (one excavator) at the allocated area at Borrow Pit C, the Contractor shall restrict all other activities, materials, equipment and personnel to within the specified area within the boundaries of the town of Oranjemund.

A Method Statement detailing the location, layout and method of establishment of the Storage Area for the one excavator shall be provided.

3.2.2 Aesthetics

The Contractor shall take reasonable measures to ensure that operational activities do not have an unreasonable impact on the aesthetics of the area.

3.2.3 Earthworks

All earthworks shall be undertaken in such a manner so as to minimise the extent of any impacts caused by such activities. The Contractor/s shall take all reasonable measures to limit dust generation as a result of earthworks. Earthworks are to be phased so that no areas are left exposed for longer than is necessary. This is especially important during the rainy season where runoff causes siltation downstream & overall erosion and loss of topsoil, etc.

3.2.4 Access Routes

The movement of equipment and workmen shall be restricted to the area of Borrow Pit C and essential access route (i.e. Shameis Road). The Contractor/s shall control the movement of all vehicles and plant machinery so that they remain on designated/demarcated routes.

Only if absolutely necessary will new routes (temporary or permanent) be allowed, but should be planned in consultation with the IEO, Project Engineer and NAMDEB. Temporary roads within the boundary of Borrow Pit C should be rehabilitated soon after their purpose has expired and should be done in a manner as approved by the IEO.

Special care should be taken to prevent spillages on the roads. Vehicles should be equipped with drip trays to prevent oil and fuel spillages. In the event of spillages, it should be reported to

the Environmental Site Manager and IEO immediately and cleaned immediately as per the applicable Method Statement.

NAMDEB vehicles and travelling public (i.e. vehicles and pedestrians) shall have the right of way on public roads and streets and the contractor/s shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

Failure to maintain road signs, warning signs or flicker lights, etc., in a good condition shall constitute ample reason for the Project Engineer and/or IEO to suspend the work until the road signs, etc., have been remedied to his satisfaction.

The speed limit for all vehicles is 40 km/h. No vehicles are to leave or reverse off designated access roads unless at areas previously agreed to with the IEO after consultation with NAMDEB.

Notices should be placed on visible locations in the vicinity of Borrow Pit C to warn the other road users of operational activities and indicating that heavy vehicles are using the road.

3.2.5 Clearing and Grubbing for Operational Purpose

Clearing should first be mapped and discussed with the IEO and Project Engineer before commencement. Expansion of the boundaries (existing as-excavated boundaries) should take place to a southerly direction, away from the hill, which is considered sensitive from a visual perspective. **If expansion of more than 10m from the existing boundary of Borrow Pit C is necessary, it would be necessary to undertake a proper investigation of the applicable area to identify and protected and indigenous species requiring rescue.**

Within the boundaries of Borrow Pit C the Contractor/s shall take steps to protect the landscape, vegetation and soil not directly affected by the operational activities and shall ensure that no avoidable damage or disturbance is caused, and that no erosion is allowed to occur.

Plant Location and Rescue

The location and rescue of endemic plants, and their transfer to a specified location shall be conducted by a suitably qualified ecologist prior to the onset of any site clearing operations.

Vegetation Clearance

Before any area is cleared of vegetation a Method Statement shall be provided.

All cleared areas shall be stabilised as soon as possible. Areas that are, in the opinion of the Project Engineer, less stable, shall be stabilised immediately following vegetation clearance. It is recommended that the Method Statement contains a phased vegetation clearance plan and strategy, accompanied with a map.

All alien vegetation species situated within the footprint of the proposed project should be removed. Vegetation not to be removed (i.e. indigenous and protected species) shall be identified and marked by the Environmental Site Manager or ecologist to be appointed by the Contractor.

Vegetation should preferably be cleared manually making use of labourers. Care shall be taken to minimise the disturbance to topsoil during this process. The use of herbicides is prohibited unless approved by the IEO.

The Contractor/s shall ensure that the clearance of vegetation is restricted to that required to facilitate the execution of the operational works. The disposal of vegetation by burying or burning is prohibited. Stockpiling of cut vegetation shall only be permitted in areas indicated by the IEO.

The Contractor shall stabilise soil in unstable areas in order to control wind-blown dust and erosion.

Conservation of Topsoil

Where necessary topsoil (an approximately 300 mm layer) shall be removed from areas to be disturbed during operations and stockpiled for rehabilitation purposes. Topsoil stockpiles shall be convex and no more than 2m high. Stockpiles shall be located in areas agreed to by the Project Engineer and IEO.

The Contractor shall at all times carefully consider what machinery is appropriate for the task while minimising the extent of environmental damage.

Topsoil is to be handled twice only – once during clearing and stockpiling & once during rehabilitation.

Topsoil stockpiles shall not be subject to compaction greater than 1500 kg/m² and shall not be pushed by a bulldozer for more than 50m. Stockpiles shall be monitored regularly to identify any alien plants, which shall be removed when they germinate to prevent contamination of the seed bank.

Appropriate measures, as agreed with the Project Engineer and IEO, shall be taken to protect topsoil stockpiles from erosion by wind or water by providing suitable storm water and cut off drains, containment using hessian or similar material and/or by establishing suitable temporary vegetation. Stockpiles shall not be covered with materials such as plastic that may cause it to compost or would kill the seed bank.

Stockpiles shall not be left compacted for more than eight months before being used for rehabilitation, resulting in poor rehabilitation success.

No vehicles shall be allowed access onto the stockpiles after they have been placed.

The Contractor shall be held responsible for the replacement, at his/her own cost, for any unnecessary loss of topsoil due to his failure to work according to the requirements of this OEMP.

3.2.6 No-Go Areas

All areas outside of the existing boundary of Borrow Pit C are ‘no go’ areas. No unauthorised entry, stockpiling, dumping or storage of equipment or material shall be allowed outside the

existing boundary of Borrow Pit C.

3.2.7 Protection of Natural Features

The Contractor shall not deface, paint, damage or mark any natural features situated in or around the sites for survey or other purposes unless agreed beforehand with the IEO /Ecologist. Any features affected by the Contractor in contravention of this clause shall be restored/rehabilitated to the satisfaction of the IEO.

3.2.8 Protection of Indigenous Fauna and Flora

Flora shall not be removed, damaged or disturbed nor shall any vegetation be planted without authorisation. Disturbance and protection of fauna and flora outside the existing boundaries of Borrow Pit C must be done in accordance with an approved Method Statement.

No herbicides, pesticides and other poisonous substances are allowed to be used and/or stored on-site.

The Contractor/s shall ensure that no hunting, trapping, shooting, poisoning or otherwise disturbance of any fauna takes place. The feeding of any wild animals is prohibited. Collecting of wood and/or killing trees in the area for the purpose of fire wood is prohibited. No removing of birds' nests or eggs allowed. No collection of fruit or seeds allowed. The protected species of trees situated around the sites and within and along the river bank (within 100m from river) shall also be deemed as off limits for all staff.

3.2.9 Erosion and Sedimentation Control

During operational works the Contractor/s shall protect all areas susceptible to erosion and siltation by installing the necessary drainage or retaining works and by taking other measures necessary to prevent the surface water from being concentrated in streams and from scouring the stream banks and depositing silt outside the demarcated work areas.

Any runnels or erosion channels developed during operations or during the defects liability period shall be backfilled and compacted, and the areas restored. Stabilisation of cleared areas to prevent and control erosion shall be actively managed. Traffic and movement over stabilised areas shall be restricted and controlled, and damage to stabilised areas shall be repaired and maintained to the satisfaction of the Project Engineer.

Anti-erosion compounds shall consist of an organic or inorganic material to bind soil particles together and shall be a proven product able to suppress dust and erosion. The method of stabilisation shall be determined in consultation with the Project Engineer. Consideration shall be made to make use of mechanical covers or packing structures, e.g. gabions and mattresses, geofabric, hessian cover, armourflex, log/pole fencing and retaining walls.

3.2.10 Landscaping and Rehabilitation

On completion of the operational phase, the Contractor/s shall ensure that all structures, equipment, materials, waste, rubble, notice boards and temporary fences used during the

operations are removed with minimum damage to the immediate and surrounding area. The Contractor shall clean and clear the site to the satisfaction of the IEO.

Any areas that the IEO believes may have been impacted upon or disturbed shall be rehabilitated to his/her satisfaction, which includes all areas where top material has been stripped. The area/s to be rehabilitated shall first be landscaped to match the topography of the surrounding area as it was prior to operations. The composition of vegetation to be used for any rehabilitation shall be as per the specifications from the IEO/Ecologist.

All rehabilitated areas shall be considered “no go” areas and the Contractor/s shall ensure that none of his staff or equipment enters these areas. The Contractor/s shall undertake to remove all alien vegetation re-establishing on the area and shall implement the necessary temporary or permanent measures to combat soil erosion.

For all rehabilitation work only plants approved by the appointed ecologist may be used. No declared invasive alien species may be used.

3.2.11 Protection of Archaeological and Paleontological Remains

Archaeological sites are protected by the National Heritage Act No 27 of 2004. Generally, it is an offence to disturb, destroy or remove from its original site any archaeological material, or excavate any such site without permission.

The Contractor/s shall take reasonable precautions to prevent any person from removing or damaging any fossils, coins, articles of value or antiquity and structures and other remains of archaeological interest discovered on the Site, immediately upon discovery thereof and before removal.

If an archaeological site or remains (i.e. fossils, coins, articles of value or antiquity) is discovered during any operational activity, the work is to be halted and the Project Engineer and IEO notified immediately, who shall contact the Namibian Heritage Council. Only after the site has been inspected will the Contractor/s be allowed to continue.

The Contractor/s will be required to abide by the specifications as set out by the Namibian Heritage Council or the heritage specialist appointed to investigate the find. The Contractor/s may not, without a permit issued by the relevant heritage resources authority, destroy damage, excavate, alter, deface or otherwise disturb archaeological material.

The Project Engineer and IEO are to be kept informed of all developments in the event where modifications are made to the clearing or earthworks schedule.

3.2.12 Safety

Relevant occupational Health and Safety requirements shall be adhered to. Telephone numbers of emergency services, including the fire safety officer and medical emergency officer, shall be displayed conspicuously at or in the Contractor's office near a telephone or on-site. No firearms are permitted.

Staff must be made aware of their responsibilities to ensure that impacts such as fire, safety and pollution are taken care of. This must form part of the environmental training and education induction and monthly refresher training. The movement of unauthorised workers to Borrow Pit C is not allowed without permits from NAMDEB.

The contractor's personnel must be adequately trained and informed in the tasks that they are expected to perform. This is required for their own safety as well as the safety of colleagues and other interested and/or affected parties.

All excavated areas and/or holes holding a potential safety risk should be clearly demarcated and visible to drivers operating all types of vehicles on-site.

3.2.13 Fire Control

No fires are necessary and are therefore not allowed at Borrow Pit C. All costs relating to damage by fire caused by the Contractor/s will be for the Contractor's cost. No collection of firewood allowed. The Contractor/s shall appoint a fire officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire. The Contractor/s shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire. The appointed fire officer shall notify the Contractor and NAMDEB personnel in the event of a fire and shall not delay doing so until such time as the fire is beyond his/her control.

Smoking is only permitted in designated smoking areas, which should be identified and allocated accordingly. Appropriate signage shall be erected at this area. A container filled with sand and a dedicated functional fire extinguisher must be available at the smoking area. Fire extinguishers within all machinery operational on-site is compulsory.

In terms of the Atmospheric Pollution Prevention Act (No. 45 of 1965), burning is not permitted as a disposal method and is accordingly NOT allowed at Borrow Pit C.

3.2.14 Emergency Procedures

The Contractor's procedures for the following emergencies shall include:

Fire

The Contractor/s shall inform all relevant parties (NAMDEB) of a fire as soon as one starts and shall not wait until it can no longer be controlled.

The Contractor/s shall ensure that his employees are aware of the procedure to be followed in the event of a fire.

Accidental Leaks and Spillages

The Contractor/s shall ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the IEO and Project Engineer.

The Contractor/s shall ensure that the necessary materials (e.g. chemcap, spill-sorb, drizzat pads, enretech and peat moss) and equipment for dealing with spills and leaks are available on-

site at all times.

The source of the spillage shall be isolated. The Contractor/s shall contain the spillage using sand berms, sandbags, pre-made booms, saw dust or absorbent materials. Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the IEO and Project Engineer.

Accidents

The Contractor/s shall ensure that his employees are aware of the procedure to be followed for dealing with an accident, which shall include notifying the IEO and Project Engineer.

The Contractor/s shall inform NAMDEB and the medical response team of the accident immediately without delay. The details of the medical response team and that of NAMDEB shall be visibly displayed at the Contractor's office and/or within the vehicles used on-site at Borrow Pit C.

3.2.15 Temporary Site Closure

If the site is closed for a period exceeding one week, the following checklist procedure shall be carried out by the Contractor/s in consultation with the IEO and Project Engineer, as applicable to Borrow Pit C.

Fuels~~/flammables/hazardous materials stores~~

- ~~Ensure fuel stores as low in volume as possible.~~
- No leaks.
- ~~Outlet secure/locked.~~
- Bund empty (where applicable).
- Fire extinguishers serviced and accessible.
- Secure area from accidental damage, e.g. plant collision.
- Emergency and contact numbers to be available and displayed.
- Adequate ventilation.

Safety

- All trenches and manholes secured.
- Fencing and barriers in place as per the relevant Occupational Health and Safety Act.
- Notice boards applicable and secured.
- Emergency and management contact details displayed.
- ~~Security persons briefed and have facility for contact.~~
- ~~Fire hazards identified.~~

- ~~Scaffolds secure.~~
- ~~Inspection schedule and log by security staff.~~

Erosion and Siltation

- Wind and dust mitigation in place.
- Stockpiles at stable angle.
- Erosion protection measures in place.

Water Contamination and Pollution

- Fuels hazardous stores secure.
- Cement and materials stores secured.
- Toilets empty and secured.
- Refuse bins empty and secured (lids).
- Bunding clean and treated.
- Drip trays empty and secure (where possible).
- Structures vulnerable to high winds secure.

3.3 HAZARDOUS SUBSTANCES

Given the intended activity no chemicals, harmful and hazardous waste shall be stored on-site at Borrow Pit C.

3.3.1 Fuel and Oil

Refuelling of the excavator shall be done in such manner as approved by the IEO following approval of the Method Statement. The locality of the refuelling station and surface under the refuelling station is subject to the approval of the Project Engineer.

The Contractor/s shall ensure that there is always a supply of absorbent material (e.g. chemcap, spill-sorb, drizzat pads, enretech and peat moss) readily available to neutralise and where possible be designed to encapsulate minor spillage. The quantity of such materials shall be able to handle a minimum of 200L of liquid spill. Adequate precautions shall be provided to prevent spillage during the filling of any tank. Soil contaminated by oil, fuel or chemicals shall be removed and disposed of at a registered Hazardous Waste Disposal Site or rehabilitated in-situ.

The Contractor/s shall ensure that there is adequate fire-fighting equipment at the refuelling station and that staff are adequately trained to use this equipment.

Refuelling of trucks and all other vehicles (apart from excavator) shall be done at the main contractor’s camp in a depot complying with the requirements listed in the applicable CEMP.

3.3.2 Ablution and Washing Facilities

The Contractor/s shall provide ablution at Borrow Pit C and well within a walking distance (±200m) from where operational activities are taking place.

The exact location of the facility shall be approved by the IEO prior to establishment. All temporary portable toilets shall be secured to the ground to prevent them toppling due to wind or any other cause.

These facilities shall be maintained in a hygienic state and serviced regularly. Toilet paper shall be provided. The Contractor/s shall ensure that toilets are emptied regularly, as well as before any public holiday and/or builder's holiday. The Contractor/s shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are removed from Site. Discharge of waste from toilets into the environment is prohibited.

Washing facilities are NOT allowed on-site at Borrow Pit C and should be provided at the main contractor's camp within Oranjemund Town.

3.3.3 Eating Area

A dedicated eating area should be provided on-site at Borrow Pit C within the existing disturbed area, preferable at the same location as the ablution and smoking area. No form of fire, i.e. cooking is allowed.

The Contractor/s shall provide a refuse bin at the eating area to the satisfaction of the IEO and shall ensure that the eating area is kept cleaned and within a hygiene state. Collected waste shall not be kept overnight and removed on a daily basis where it will be disposed at the waste storage area at the main contractor's camp within Oranjemund Town.

No fires may be lit except if approved by the Project Engineer and in properly prepared facilities approved by the Project Engineer.

3.3.4 Accommodation Facilities

No accommodation facilities are allowed at Borrow Pit C.

3.3.5 Workshop, Equipment Maintenance and Storage

ALL maintenance of the excavator and/or trucks (or any other plant and equipment) shall be performed in the workshop situated at the main contractor's camp within Oranjemund Town. No workshop is allowed at Borrow Pit C, nor is any washing of vehicles and/or equipment allowed.

If maintenance outside of the workshop area becomes absolutely necessary for whatever reason, the Contractor/s shall obtain the approval of the IEO prior to commencing any maintenance activity. When the Contractor/s carries out emergency plant maintenance it is essential that there is no pollution to the environment. Drip trays shall be placed underneath all stationary vehicles to the extent required during the emergency repairs. Drip trays shall be inspected and emptied daily within the allocated waste drum at the main contractor's camp within Oranjemund Town. Where practical, the Contractor/s shall ensure that equipment is covered so that rainwater is excluded

from the drip trays. Drip trays shall be closely monitored during rain events to ensure that they do not overflow.

The above will be overseen by the Environmental Site Manager.

3.3.6 Noise

Considering the distance (1.6km) of Borrow Pit C from the closest receptor and the direction (north-west), noise originating from the daily operations is not expected to be of any significance.

Limit operation times to the following hours:

- 07:00 to 18:00 during the week (Monday to Friday);
- 08:00 to 17:00 on Saturdays, and
- No noisy activities on a Sunday.

No blasting is intended and is not allowed without any prior approvals from NAMDEB, Oranjemund Town Council, and the Ministry of Environment and Tourism.

3.3.7 Dust

The Contractor/s shall take all reasonable measures to minimise the generation of dust as a result of transporting of base material and/or the on-site operational activities to the satisfaction of the Project Engineer and IEO.

Considering the distance (1.6km) of Borrow Pit C from the closest receptor and the direction (north-west), noise originating from the daily operations is not expected to be of any significance.

The Contractor's dust management planning shall, as a minimum, take cognisance of the following:

- Speed limits for vehicles on unpaved roads and minimisation of haul distances. The speed limit for all vehicles is 40 km/h.
- Location and treatment of material stockpiles taking into consideration prevailing wind directions and location of sensitive receptors.
- Reporting mechanism and action plan in case of excessive wind and dust conditions.
- Removal of any vegetation shall be avoided as far as possible, while handling and transport of erodible materials shall be avoided under high wind conditions.
- During high wind conditions, the Environmental Site Manager and Project Engineer will evaluate the situation and make recommendations as to whether dust-damping measures are adequate, or whether working will cease altogether until the wind speed drops to an acceptable level. Where possible, stockpiles shall be located in sheltered areas. Where erosion of stockpiles becomes a problem, erosion control measures shall be implemented at the discretion of the IEO and Project Engineer.
- Appropriate dust suppression measures shall be used when dust generation is

unavoidable.

3.3.8 Site Structures

No structures apart from the ablution facility and a shaded area for purpose of the eating and smoking area are allowed at Borrow Pit C.

The mentioned structures shall be positioned to limit visual intrusion.

3.4 POST OPERATIONS

3.4.1 Ripping of Compacted Soil

All areas where soil has been compacted due to operational activities must be ripped in two perpendicular directions to a depth of 0.15m.

3.4.2 Site Rehabilitation

The site must be cleared of all machinery and equipment, waste and associated materials by the end of the operational activities of this Project.

Areas that were cleared for purposes of parking area, ablution, smoking and eating areas should be restored to its original condition.

Stockpiled topsoil and indigenous vegetation should be used for all rehabilitation purposes. The rehabilitation plan must ensure that erosion by runoff water does not occur.

3.5 MEASUREMENT AND PAYMENT

No separate measurement and payment will be made to cover the costs of complying with the OEMP and such costs shall be deemed to be covered by the rates tendered for the items in the Schedule of Quantities completed by the Contractor/s when submitting his BID.

3.6 MITIGATION MEASURES AND PROPOSED MANAGEMENT PROGRAMME

The table below outlines those specific mitigation measures required in order to fulfil the recommendations. These measures must be implemented during the o. The responsibility for these measures is included in Column IV.

This forms a general code of conduct for all contractors operating on the sites. While responsibilities have been assigned to various other parties, it must be borne in mind that ultimately the applicant and his/her successor are held responsible for any damage to the environment as a result of the development and that non-compliance with the OEMP will be regarded as non-compliance in terms of the Environmental Clearance Certificate.

(I) Issue	(II) Objective	(III) Mitigation Measure	(IV) Responsibility	(V) Compliance Notes
PLANNING & DESIGN				
Contractor Requirements	Ensure that the Contractor is aware of his/her responsibility.	Provide the contractor with the OEMP.	Project Engineer	
Independent Environmental Officer	Ensure that activities on site are compliant with the requirements of the OEMP.	Appoint an IEO to oversee environmental aspects of the Project.	Proponent	
Visuals & Aesthetics	Ensure that the visual aspects of operations are taken into consideration to lessen visual impacts from surroundings.	Retain the current raised outer sand beam as a natural screen.	Contractor	
Waste Management	Ensure the effective and efficient separation, storage and removal of waste from the site.	Implement a basic Waste Management Plan for the operational activities.	Contractor	
Loss of habitat/eco-systems	Ensure protect of indigenous and protected species surrounding the site.	Identify and mark protected and indigenous species to be preserved.	Contractor	
SITE ESTABLISHMENT				
Site boundary	Ensure that there is no unnecessary disturbance to surrounding areas.	Define the boundaries of the site, place markers and communicate the layout and extent of the site to all personnel.	Contractor	
Pollution by personnel	Ensure that personnel do not pollute the environment.	Ablutions, eating and smoking areas should be maintained in a clean and healthy condition, and all waste should be managed as per the OEMP.	Contractor	
Soil	Ensure preservation of the top soil.	Top soil stockpiles must be established in disturbed zones.	Contractor	
Soil	Ensure that erosion impacts and siltation is kept under control.	Areas scheduled for removal of base material should be cleared only 1 week prior to vegetation clearance and after approval has been obtained from the IEO.	Contractor	
Training	Improve the awareness of all personnel with regard to environmental matters.	Develop and implement a training programme to address environmental issues and responsibilities.	Contractor	
OPERATIONS				
Archaeological remains	Ensure the protection of archaeological remains.	Activities must be stopped and a professional archaeologist consulted should any archaeological remains be uncovered.	Contractor	

(I) Issue	(II) Objective	(III) Mitigation Measure	(IV) Responsibility	(V) Compliance Notes
OPERATIONS				
Pollution	Prevent and spillages and/or leaking from machinery and/or vehicles during operations and/or refuelling.	Provide training to all personnel on preventative measures and the appropriate action plan in the event of any spillages and/or leakages as provided for by this OEMP.	Contractor	
Communication	Ensure that interested and affected parties are provided with a medium through which to lay complaints with regard to any nuisances originating as a result of the operations.	A complaints register should be kept in the site office.	Contractor	
Contaminated Soil	Ensure that soils that are contaminated do not pollute the environment.	All soils that have been contaminated by fuel spills, paints spills, etc. must be appropriately removed from the site.	Contractor	
Dust	Ensure dust does not cause nuisance.	Ensure adequate dust suppression at all times.	Contractor	
IEO and Project Engineer	Ensure that there is compliance with the OEMP on site.	An IEO may inspect the site at any time during the operational phase.	IEO	
Effect of the OEMP	Ensure that the OEMP is enforced on all contractors.	Each contractor and subcontractor must be notified on the content of this OEMP.	Engineer & IEO	
Ground Water	Prevent the contamination of groundwater resources.	Vehicles must be equipped with drip trays to prevent spillages of oils and fuels.	Contractor	
Loss of surrounding habitat and sensitive species	Prevent the destruction of protected endangered, and indigenous plant species.	Protected, endangered, indigenous, medicinal and/or sensitive plants that are likely to be destroyed or affected by operational activities should be relocated to more suitable areas.	Contractor	
Road Works and Traffic	Ensure that local users are not inconvenienced by the movement of operation's vehicles along roads.	Vehicles should drive at a maximum of 40km/h and by licenced personnel.	Contractor	
		Notice boards should be placed along the delivery routes during the operations period indicating that heavy vehicles are using the road.	Contractor	
Safety & Security	Ensure the safety and security of staff and the public.	All local authority by-laws must be adhered to.	Contractor	
		All contractors must take cognisance of and abide by the Occupational Health and Safety Act.	Contractor	
		Trenches to a depth greater than 1.5 m must be supported or appropriate warning must be provided.	Contractor	

(I) Issue	(II) Objective	(III) Mitigation Measure	(IV) Responsibility	(V) Compliance Notes
OPERATIONS				
Safety & Security	Ensure the safety and security of staff and the public.	Provided fencing needs to be checked and maintained.	Contractor	
		The movement of workers through the neighbouring area should be restricted wherever possible.	Contractor	
Soil	Ensure that storm water cannot erode the top soil stockpile.	Construct and maintain a berm around top soil stockpiles.	Contractor	
Storage Facilities	Ensure that fuel stored on site does not pose a pollution and fire hazard.	Fuels stored on site shall be bunded to 120% of the capacity of the largest container.	Contractor	
		Sufficient and adequate firefighting equipment should be kept on-site at all time.		
Storm Water Run-off	Ensure that run-off does not contribute to erosion & siltation.	Construct and maintain berms on the site to contain storm water run-off or establish riffle beds or retention ponds, as appropriate.	Contractor	
Vehicle repairs	Ensure that spillages are minimised and that where these occur, that they are appropriately managed.	Minor vehicle repairs on an appropriate work surface may only take place with approval from the IEO.	Contractor	
		All maintenance and repairs should be done within the main contractor's camp.	Contractor	
Waste	Ensure the adequate removal of all waste types.	All wastes (hazardous or general) must on a daily basis be collected on-site and transported to the main contractor's camp and disposed of at an appropriate registered facility.	Contractor	
		No waste should be burnt on site.	Contractor	
POST OPERATIONS				
Site Rehabilitation	Ensure the site is left clean, orderly and free of rubble after operational activities.	Remove all rubble, rubbish, litter, unused building equipment, contaminated soils or any other relevant articles from the site following the end of the operational activities.	Contractor	
Soil	Promote the rehabilitation of the site back to its condition as found before as far as possible and reasonable.	Soil that has been compacted during operational activities must be ripped in two perpendicular directions.	Contractor	
Soil	Ensure the re-use of top soil for rehabilitation.	Top soil that is stockpiled on site must be used to rehabilitate the disturbed areas.	Contractor	

(I) Issue	(II) Objective	(III) Mitigation Measure	(IV) Responsibility	(V) Compliance Notes
MONITORING				
Audit Reports	Ensure adequate reporting of the operational activities.	Monthly reports should be forwarded to the DEA.	IEO	
Monitoring	Ensure compliance with the requirements of the OEMP.	Undertake monitoring activities on a monthly basis.	IEO	

APPENDIX A ENVIRONMENTAL METHOD STATEMENT

METHOD STATEMENT

CONTRACT: ..... **DATE**: .....

WHAT WORK IS TO BE UNDERTAKEN? (give a brief description of the works)

WHERE ARE THE WORKS TO BE UNDERTAKEN? (where possible, provide an annotated plan and a full description of the extent of works)

START AND END DATE OF WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED

Start Date: End Date:

HOW ARE THE WORKS TO BE UNDERTAKEN? (provide as much detail as possible, including annotated sketches and plans where possible) *Note: please attach extra pages if more space is required.

APPENDIX B PRO-FORMA: ENVIRONMENTAL MONITORING REPORT

IEO ENVIRONMENTAL MONITORING REPORT (GENERIC)

Report No:..... **Date:.....**

Method Statements	**Contractor:**	**Date received:**

Environmental Education	**Contractor:**	**Date undertaken:**

Issue	**Observation**	**Remedial action**	**Compliance**
1 Operations			
1.1 All plant, personnel, etc. restricted to works area?			
1.2 Contractor's Camp located in area of low environmental sensitivity as indicated by the Engineer?			
1.3 Where needed, sensitive areas adequately fenced off?			
1.4 Fencing well maintained?			

Issue	**Observation**	**Remedial action**	**Compliance**
1.5 No unauthorised entry, stockpiling, etc. outside work areas?			
1.6 All vehicles and plant remain on designated routes?			
1.7 Information posters put up and maintained where needed?			
1.8 No smoking in hazardous areas?			
1.9 Basic firefighting equipment available on Site?			
1.10 No burning of wastes as a means of disposal?			
1.11 Staff aware of procedures in the event of spills/leaks?			
1.12 Materials for dealing with spills/leaks available?			
1.13 Emergency contact numbers displayed at Contractor's office?			

Issue	**Observation**	**Remedial action**	**Compliance**
1.14 Complaints Register up to date?			
1.15 Archaeological material found on Site mitigated?			
1.16 No animals trapped or harmed?			
1.17 No flora removed or damaged outside work areas?			
1.18 Adequate drainage and retaining works in place to control erosion/siltation?			
1.19 Restricted traffic over stabilised areas?			
1.20 No concrete mixing on bare ground?			
1.21 Concrete batching restricted to area of low environmental sensitivity?			
1.22 All wastewater from concrete mixing area disposed of via wastewater management system?			

Issue	**Observation**	**Remedial action**	**Compliance**
1.23 Concrete mixing area kept neat and clean?			
1.24 Suitable screening and containment of cement silos?			
1.25 All visible remains of excess concrete removed on completion of concrete work?			
1.26 No pollution from drilling operations?			
1.27 Location and rescue of plants undertaken by suitably qualified contractor?			
1.28 Rescued plants moved to nursery if direct transplantation not possible?			
1.29 After vegetation clearance, all unstable areas are properly stabilised?			
1.30 Cleared vegetation properly disposed of?			

	Observation	Remedial action	Compliance
1.31 All wastes removed from cleared area and disposed of?			
1.32 Mulched vegetation stored in bags?			
1.33 Fertilisers containing phosphates not used?			
1.34 No planting undertaken where works have not yet been finished?			
1.35 No unauthorised traffic on revegetated areas?			
2 Materials			
2.1 Materials are adequately secured to ensure safe deliveries?			
2.2 All materials being stored inside Contractor's Camp?			
2.3 All imported materials free of weeds, litter, etc.?			
2.4 Stockpile areas approved?			

Issue	**Observation**	**Remedial action**	**Compliance**
2.5 Topsoil stripped and stockpiled at a suitable site prior to earthworks?			
2.6 No spoil stockpiled outside agreed areas?			
2.7 Spoil stockpiles correctly shaped and protected?			
2.8 All plants used for landscaping/rehabilitation listed in the approved plant list?			
2.9 Plants adequately protected during transit and at storage facilities?			
2.10 Plants healthy and free from diseases and pests?			
3 Plant			
3.1 Fuel/oil storage facilities adequately secured and protected against leakage?			
3.2 Safety signage provided at fuel storage areas?			
3.3 All electrical/petrol			

pumps suitably equipped and placed not cause any danger of ignition?			
3.4 Fuel storage areas comply with fire safety regulations?			
3.5 Necessary authorisations obtained for temporary above ground fuel tanks?			
3.6 Capacity of a fuel tank does not exceed 9000 ℓ?			
3.7 Fuel tanks erected at least 3.5 m away from buildings, boundaries or other flammable materials?			
3.8 Adequate toilet facilities provided for staff (min. 1 toilet per 30 workers)?			
3.9 Toilets adequately maintained?			
3.10 All workers use toilets?			
3.11 Scavenger-proof bins with lids provided at eating areas?			

Issue	**Observation**	**Remedial action**	**Compliance**
3.12 Waste temporarily stored inside Contractor's Camp in weather- and scavenger-proof bins?			
3.13 No burying or dumping of wastes on site?			
3.14 Waste management system in place?			
3.15 Refuse disposed of at licensed landfill?			
3.16 Adequate waste-water management system in place?			
3.17 Approval for discharge of contaminated water into municipal sewer system?			
3.18 Runoff from workshops, fuel depots, etc. directed into conservancy tanks for disposal at approved site?			
3.19 Wash areas placed and built in such a way that does not cause any pollution?			

Issue	**Observation**	**Remedial action**	**Compliance**
3.20 All maintenance of plant and equipment takes place in workshop?			
3.21 All plant is well maintained (no leaking)?			
3.22 Workshop has a bunded, impermeable floor sloping towards oil trap?			
3.23 Contractor's Camp tidy?			
3.24 All plant and machinery have drip trays, which are checked and emptied daily?			
3.25 All repairs on machinery using fuels or lubricants done over a drip tray?			
3.26 Static plant located within a bunded area?			
3.27 Measures in place to minimise dust generation?			
3.28 No handling/transport of erodible materials under high wind conditions?			

APPENDIX C LIST OF PENALTIES

SCHEDULE OF PENALTIES FOR ENVIRONMENTAL DAMAGE OR OEMP TRANSGRESSIONS

Note: The maximum penalty for any environmental damage will never be less than the cost of applicable environmental rehabilitation.

OEMP TRANSGRESSION OR RESULTANT ENVIRONMENTAL DAMAGE	MIN (N$)	MAX (N$)
Failure to report environmental damage or OEMP transgressions to the IEO or Engineer.	500.00	2,000.00
Failure to carry out instructions of the IEO or Engineer regarding the environment or the OEMP.	500.00	1,000.00
Failure to comply with prescriptions for securing of loads to ensure safe passage of delivery vehicles.	500.00	1,000.00
Failure to comply with prescriptions for the storage of imported materials within a designated contractor's yard.	500.00	1,000.00
Failure to comply with prescribed administration, storage or handling of hazardous substances.	500.00	1,000.00
Failure to comply with fuel storage, refuelling, or clean-up prescriptions.	500.00	1,000.00
Failure to comply with prescriptions for the use of ablution facilities.	500.00	1,000.00
Failure to comply with prescriptions for the use of designated eating areas, heating source for cooking or presence of fire extinguishers	500.00	1,000.00
Failure to comply with prescriptions regarding water provision.	500.00	1,000.00
Failure to comply with prescriptions regarding fire control.	500.00	5,000.00
Failure to comply with prescriptions for waste management (incl. paint chips, cement and concrete).	500.00	5,000.00

OEMP TRANSGRESSION OR RESULTANT ENVIRONMENTAL DAMAGE	MIN (N$)	MAX (N$)
Failure to comply with prescriptions to prevent water pollution.	500.00	5,000.00
Failure to comply with prescriptions regarding workshop equipment maintenance and storage.	500.00	1,000.00
Failure to comply with prescriptions regarding noise levels of operational activities.	500.00	1,000.00
Failure to comply with prescriptions regarding working hours.	500.00	5,000.00
Failure to comply with prescriptions regarding lighting and aesthetics.	500.00	1,000.00
Failure to comply with prescriptions regarding silt, debris and other obstruction removal.	500.00	5,000.00
Failure to comply with prescriptions regarding water diversion and drainage.	500.00	5,000.00
Failure to comply with prescriptions regarding erosion and scour protection.	500.00	5,000.00
Failure to comply with prescriptions regarding traffic accommodation.	500.00	5,000.00
Failure to comply with prescriptions regarding tree and vegetation removal/damage.	5,000.00	20,000.00
Failure to comply with prescriptions regarding site demarcation and erection of fences.	500.00	5,000.00
Failure to comply with prescriptions regarding demarcation and enforcement of ‘no go’ areas.	500.00	5,000.00
Failure to comply with prescriptions regarding control of vehicles and plant on access routes.	500.00	1,000.00
Failure to comply with prescriptions regarding information posters	500.00	1,000.00

OEMP TRANSGRESSION OR RESULTANT ENVIRONMENTAL DAMAGE	MIN (N$)	MAX (N$)
Failure to comply with prescriptions regarding procedures for emergencies.	1,000.00	5,000.00
Failure to comply with prescriptions regarding information boards or a complaints register.	500.00	1,000.00
Failure to comply with prescriptions regarding protection of natural features.	500.00	5,000.00
Failure to comply with prescriptions regarding erosion and sedimentation control.	500.00	5,000.00
Failure to comply with prescriptions regarding protected areas.	2,500.00	10,000.00

For each subsequent similar offence committed by the Contractor, the penalty shall be doubled in value to a maximum value of N$ 50,000.00

APPENDIX D - BORROW PIT C PRE-OPERATIONS PHOTO REPORT

Photo 1 – View of road towards Borow Pit

Photo 2 – View of part of Borrow Pit

Photo 3 – View of larger area of Borrow Pit

Photo 4 – View of natural surroundings around Borrow Pit

Photo 5 – View of plastic bottle found in the surroundings