

**ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLAN
FOR THE 50 MW ORYX ORANGE RIVER SOLARPARK
PHOTOVOLTAIC PLANT IN AUSSENKEHR, //KARAS REGION**

BACKGROUND INFORMATION DOCUMENT



Prepared by



Prepared for

**Oryx Orange River
Solarpark (Pty) Ltd**

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1 INTRODUCTION

Oryx Orange River Solarpark (Pty) Ltd (the Proponent) plans to construct and operate a 50 MW photovoltaic (PV) plant at Aussenkehr, //Karas Region. The plant will be located on a 100 ha area of Farm 498 (Figure 1) and will be connected to the National power grid via the Aussenkehr Substation.

The Proponent has requested Geo Pollution Technologies (Pty) Ltd (GPT) to apply for an environmental clearance certificate (ECC) for the PV plant. The ECC is required as per the Environmental Management Act No. 7 of 2007 (EMA). As part of the ECC application, an environmental assessment report and environmental management plan (EMP) will be submitted to the Ministry of Environment, Forestry and Tourism's Directorate of Environmental Affairs (DEA).

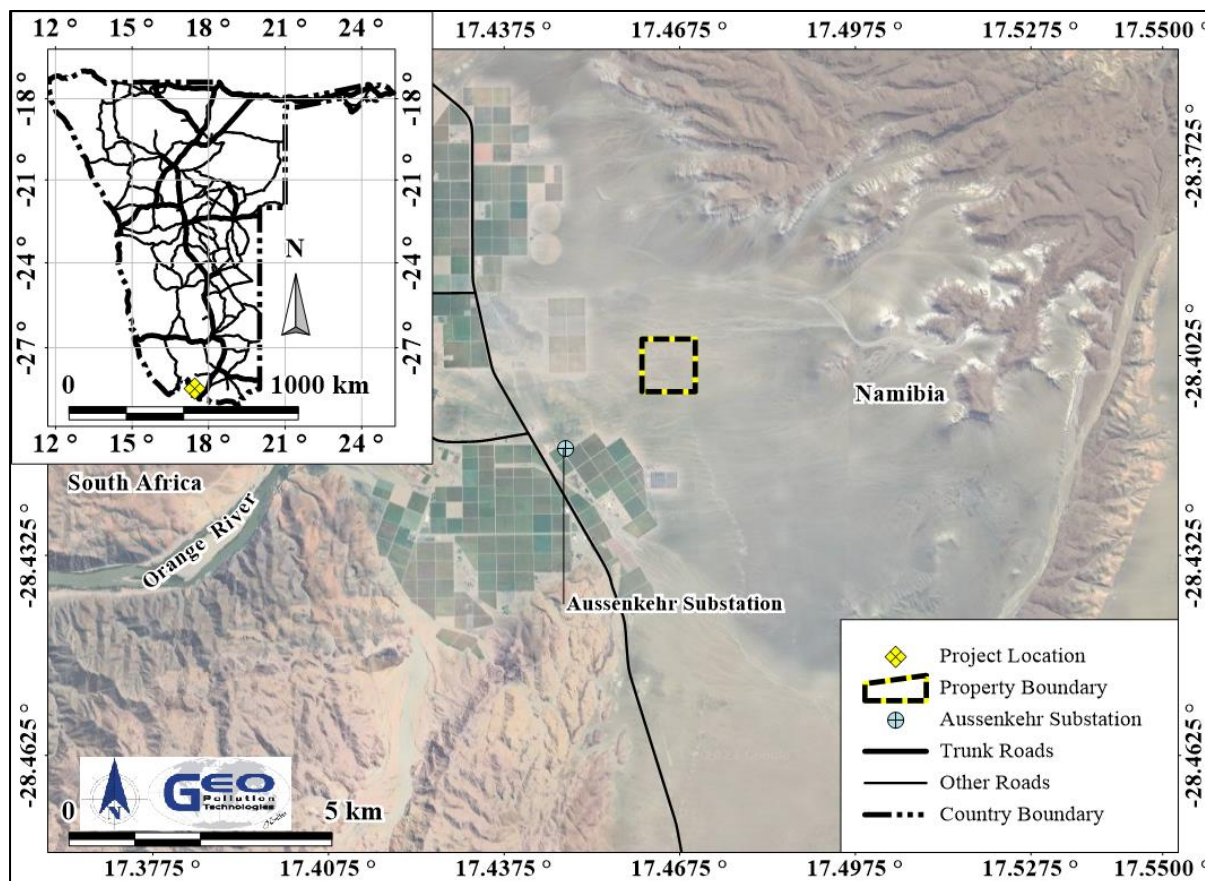


Figure 1 Project location

2 PURPOSE OF THE BID

With this background information document (BID), GPT aims to provide the DEA, authorities and interested and affected parties with information about the facility, and to register the ECC application with the Ministry of Mines and Energy and the DEA.

3 PROJECT DESCRIPTION

Activities considered for the assessment have been divided into the following phases: planning, construction and maintenance, operational and a decommissioning phases. A brief outline of expected activities for each phase is detailed below.

3.1 PLANNING PHASE

Continuously during construction and operations, and prior to possible future decommissioning activities at the PV plant, it is the responsibility of the Proponent to ensure they are and remain compliant with all legal requirements. The Proponent must also ensure that all required management measures are in place prior to, and during all phases, to ensure potential risks and impacts are minimised. Typical planning activities include:

- ◆ Where not in place, obtain permits and approvals from local and national authorities including licencing from the Electricity Control Board and power purchase agreements with NamPower.
- ◆ Ensure correct zoning and subdivision of the property, if applicable.
- ◆ Make provisions to have a health, safety and environmental coordinator to implement the EMP.
- ◆ Ensure provisions for a fund to cater for restoration or rehabilitation activities in the event of environmental incidents or pollution.
- ◆ Ensure all appointed contractors and employees enter into an agreement with the Proponent which includes adherence to relevant sections of the EMP.
- ◆ Maintain a reporting system to report on aspects of construction and maintenance, operations and decommissioning as outlined in the EMP. This is a requirement of the DEA.

3.2 CONSTRUCTION AND MAINTENANCE

The Proponent plans to construct a 50 MW grid connected PV plant using solar panel technology. Solar panels will be installed on mounting racks to form solar panel arrays. The direct current (DC) produced by the plant will be converted into alternating current (AC) by means of inverters. The generated electricity will then feed into the National power grid via an aboveground power line connected to the nearby Aussenkehr Substation.

Construction activities will entail some earthworks to prepare the area for the installation of the power line, mounting racks and support infrastructure. A short aboveground power line will be required and its construction will entail installation of pylons and the stringing of transmission cables. Concrete works will be required to cast the foundations to which the mounting racks will be secured. Solar panels will be fixed to the mounting racks and all cabling will be installed to connect the solar panels to each other to form the solar array and to connect the solar array to the inverters and ultimately to the aboveground power line.

Once operational, maintenance and minor repairs will be performed on infrastructure as required. This may include servicing and replacement of solar panels, parts and equipment.

3.3 OPERATIONAL PHASE

Limited operational activities are required for a PV Plant. Operations will mainly entail regular inspection of all infrastructure components, as well as cleaning of the solar panels to ensure continued optimal functioning.

3.4 DECOMMISSIONING PHASE

Decommissioning of the entire PV plant is not foreseen during the validity of the ECC. Decommissioning will however be assessed. Decommissioning will entail partial or complete removal of all infrastructure. Where decommissioning occur, rehabilitation of the area may be required. After decommissioning, any pollution present on the site must be removed or remediated.

3.5 PRELIMINARY IDENTIFIED IMPACTS

During the preparation of the environmental assessment and EMP, all components of the environment will be considered. However, only those components which are, or may be, significantly impacted, or are deemed to be sensitive, will be assessed. These include the following:

- ◆ Human component (employee and visitor health and safety)
- ◆ Infrastructure (aesthetics, fire, integrity, damage to services, etc.)
- ◆ Neighbours (noise, aesthetics, waste, traffic)
- ◆ Groundwater, surface water and soil (hydrocarbon spills, waste, pollutants)
- ◆ Ecosystem and biodiversity (habitat, pollutants, birds)
- ◆ Socio economic characteristics (employment, training, skills, revenue)

4 PUBLIC CONSULTATION

Public consultation is an integral part of all environmental assessments. Geo Pollution Technologies thus invites all interested and affected parties (IAPs) to provide in writing, any issues and suggestions regarding the project. This correspondence must include:

- ◆ Name and surname
- ◆ Organization represented or private interest
- ◆ Position in the organization
- ◆ Contact details
- ◆ Any direct business, financial, personal or other interest which you may have in the approval or refusal of the application.

All contributions become public knowledge and will be included in the environmental assessment report. The environmental assessment and EMP reports will be circulated to all registered IAPs for review as per the EMA requirements. The comments, inputs and suggestions will also be submitted to the DEA along with how any issues have been addressed in the environmental assessment.

The public participation process will remain ongoing during the environmental assessment. However, all comments and concerns should be provided to GPT timeously, to ensure incorporation into the final report. For any additional information the project team may be contacted at:

