

Scope of Work

Biodiversity Sampling & Monitoring


2019

CONTACT PERSON

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APPROVED BY:

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Manager Environment & SHEQ MS

Date :	17/01/2019
Signature :	

Copies of Material Safety Data Sheets of Chemicals to be used must be available at all times during the contract.

The contractor and his personnel will have to attend a induction course at Palabora Security as well as Medical examinations prior to commencing with work as part of registration as a Palabora contractor.

The contractor/consultant must have a reliable robust vehicle for transportation purposes in rugged terrain. Vehicles must be able to seat each team member, each with a safety belt. The driver of the vehicle must have a valid provincial driver's licence. The team will have to attend site-specific induction training prior to commencing work in certain areas. Previous sampling/monitoring experience would be an advantage.

MONITORING AND SAMPLING REQUIREMENTS

The following should be included in the annual cycle of monitoring and sampling proposal in alignment with the Biodiversity Action Plan as well as the Water use License requirements:

Monitoring indicators of biodiversity (including repeat surveys of relevant taxa, e.g. dragon flies, dung beetles, bats, birds, small mammals, large mammals).
Mammal surveys (game count)
Monitoring of species of conservation concern
Monitoring of vegetation & elephant impacts on vegetation
Monitoring of ecosystem structure and functioning (e.g. LFA sampling)
Soil surveys
Monitoring of alien plants
Research and development of rehabilitation method / closure related studies
Biodiversity Action Plan updates in relation to study triggers

REPORTING

The contractor will be expected to submit a report on each monitoring and sampling project after completion to the Environmental Section. These reports should include the methodology used and relevant findings made during the course of monitoring and sampling. The findings contained in these reports should also be used to update the Palabora Copper Biodiversity Action Plan (BAP), invoicing is to be done in accordance with completed reporting.

SURVEY, SAMPLING AND MONITORING REPORTING

All completed surveys, sampling and monitoring for which the contractor received the related data (such as geo-botanical and dung sampling) should have an accompanying report that should not be exclusive of the methodology and perceived outcome of the study.

It is understandable that not all studies and surveys need to be done on an annual basis, but all should be done at least once during the 3 year cycle of the contract to complement the baseline study as well as to update the BAP. The contractor should communicate his planned surveys for each year to the environmental section for approval.

PROJECT MANAGEMENT

Environmental representative

The representative who shall be responsible for co-coordinating the program is a Palabora Copper Environmental Specialist. He will communicate when any deviation from the sampling/survey work is required. In such cases this will be communicated to the contactor representative before such delegation is given.

Meetings

Staff of the contractor/consultant working on site will be required to meet with an Environmental Representative of Palabora Copper on prior to commencing sampling/survey work for logistical and planning purposes.

INFORMATION, DOCUMENTS & DRAWINGS

Information relevant to this project, and required by the contractor to effectively conduct the work covered by this contract, will be supplied by Palabora Copper to a contractor representative. This includes information such as maps of Palabora Copper properties, aerial photographs, and environmental data collected previously on the properties of Palabora Copper.

CONDITIONS OF CONTRACT

The order will be subject to the standard terms and conditions of contract of Palabora Copper.

TENDER DOCUMENTATION

The tender document shall include the following documents and information:

- List of Safety equipment and clothing to be used
- List general equipment
- Manager
- First Aid training certificates
- Team members
- Please submit quotation in the format attached.
- Proposal for work to be done is to be submitted on annual basis
- SHEQ plan

AVAILABLE CONTRACTOR

The following contractor has been identified as a candidate for the tender :

- SAEON
- SRK
- Golder
- Frazer Alexander
- Knight Piesold
- SLR consulting
- GCS consultants

Survey, Sampling and Monitoring	Current	Frequency/amount	Unit cost	Total cost
Geo Botanical and Animal Dung Data analysis and reporting, in relation to change in Cu, Mo and Se toxicity, bio-availability and environmental stressors				
Monitoring indicators of biodiversity: (including repeat surveys of relevant taxa) (a report is to accompany each survey).				
Aquatic Avian Monitoring				
Terrestrial Avian Monitoring				
Small Mammals				
Monitoring of Bats				
Monitoring of Insects(dung beetles /dragonflies)				
Monitoring of Amphibians				
Monitoring Large mammals (game count)				
Mammal movement monitoring (Cybertracker data analysis)				
Reptile monitoring				
Monitoring of Vegetation & Elephant impacts on vegetation				
Monitoring of ecosystem structure and functioning (ARC monitoring) inclusive of 2 rehabilitation sites per annum				
Monitoring the alien plants in relation to area, vegetation unit, no of species and density p/ha				
Annual Rehabilitation/ Sustainability/Closure Research				
Update of Biodiversity Action Plan				
Total cost				

