TERMS OF REFERENCE FOR THE PROPOSED NAMOSI JOINT VENTURE (NJV) WAISOI COPPER GOLD PROJECT.

#### Background

These terms of reference are prepared for the Namosi Joint Venture (NJV) Waisoi copper gold project.

### Purpose of the Terms of Reference

The purpose of the Terms of Reference is

- (a.) to determine the environmental baseline condition at the site
- (b.) assess the environmental impact of the construction and operation of the proposed mining development and
- (c.) identify practicable mitigating measures.

## The Components of the EIA are to be:

A technical report

A non-technical summary of the same report

 The report is a scientific document and should be presented as such, strictly adhering to the format and layout of the terms of reference.

#### Responsibility

The report should be signed and dated by the developer and his representative at the beginning of the report. The signatory will assume full responsibility for the contents of the EIA document and implementation of recommendations contained within it.

#### 1.0 INTRODUCTION

This document represents the Terms of Reference (ToR) for the Environmental Impact Assessment (EIA) for the Waisoi Copper Gold Project, the subject of the Special Prospecting License 1420 (SPL 1420).

The Namosi Joint Venture (NJV) was established in January 2008 for the exploration and, if warranted, development of mineral resources in the Namosi area, the subject of SPL 1420. In particular, in regards to these ToR, focus will be given to two ore bodies at Waisoi containing copper and some gold and molybdenum, which are located about 35km north-west of Suva, on the island of Viti Levu. The NJV is studying whether it is possible to develop and mine these ore bodies. Part of that assessment is the undertaking of Environment Impact Assessment (EIA), as required under Fiji legislation.

NJV had previously submitted a Project Description to the DoE in June 2011 and commenced work on the EIA. Work on the EIA was suspended in early 2012. Following some additional



project study work and feedback from the initial public consultation, NJV made a number of changes to the originally submitted Project Description. A revised Project Description was submitted to the DoE on 18 March 2016 to recommence the EIA process. The revised Project shall be referred to as the "Project" in this ToR.

#### 1.1 Legislative Requirements

This ToR for the Project has been prepared in accordance with:-

- Section 28(3) of the Fiji Environment Management Act 2005
- Regulations 10(3)(b), 19 and 21 of the Fiji Environment Management (EIA Process) Regulations 2007
- Fiji Environment and Resource Management Act
- Fisheries Act (Cap 158)
- Forest Decree 1992
- Mining Act (Cap 146)
- Public Health Act (Cap 111)
- Rivers & Streams Act (Cap 136)
- Sewerage Act (Cap 128)
- Town Planning Act (Cap 139)
- iTaukei Lands Act (Cap 133)
- iTaukei Lands Trust Act (Cap 134)
- iTaukei Affairs Act (Cap 120)
- Roads Act (Cap 135)
- Ports of Fiji (Cap 181)
- Fiji Museum Act
- Preservation of Objects of Archaeological and Paleontological Interest Act
- National Trust of Fiji Act
- National Trust of Fiji (Amendment) Act

### 2.0 INFORMATION AND ADVICE ON PREPARATION OF THE EIA REPORT

The EIA report should provide stakeholders with sufficient information to understand the type and nature of the Project, its potential environmental, socio cultural and economic impacts and benefits, and the measures proposed by NJV to mitigate adverse impacts on the natural, socio cultural and economic environment.

Information should be written in the clearest language possible. Where technical language is used a glossary defining technical words and acronyms will be included. It should contain accurate, clear and concise charts, diagrams, figures and maps whenever useful. Where possible maps will be of common scale and orientation to allow for comparison and overlap of mapped features.

The Executive Summary of the EIA should be translated to Fijian and every effort be made to ensure it is accessible to the villages in the Project area.

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#### 2.1 General EIA Report Format

The EIA should generally be presented in a format consistent with that outlined in Section 3 Contents of the EIA Report of this ToR document. As required by regulation 27(1) (a) & (b) of the Environment Management (EIA Process) Regulations 2007, NJV must send:-

- **2.1.1** Four hard copies of the EIA report and accompanying documents, and one electronic copy on a disc in PDF format, to the processing authority
- 2.1.2 One hard copy of the EIA report to the EIA Administrator

Maps, diagrams and other illustrative materials should be included in the EIA report to assist in the interpretation of the information.

### 2.2 Requirements of the EIA Report

Regulation 25 of the Fiji *Environment Management (EIA Process) Regulations Act 2005* requires the EIA report to provide:-

- **2.2.1** The name and location of the proposal and details of the proponent, the approving authority, the date of the preparation of the proposal and the person or body responsible for the preparation
- **2.2.2** The identity of the person or persons who prepared or participated in the EIA with full contact details
- **2.2.3** A description of the purpose and scope of the Project, including the background and rationale for the activity or undertaking and its intended goals and objectives
- **2.2.4** A description of the environment setting of the site of the Project, including a statement of the environment resources, socio cultural resources and conditions in the area before the implementation of the activity or undertaking, and a projection or estimation of the changed environmental socio cultural circumstances that may occur as a result of the Project
- **2.2.5** A description of the possible environmental, socio cultural and resource management impacts of the Project, including any socio cultural degradation, pollution or waste that may be generated, and impacts occurring during construction, operation, decommissioning, and closure phases of the Project
- **2.2.6** A statement of the various project alternatives that have been considered for the Project that are reasonably foreseeable and technically and economically appropriate, including the option of taking no action, and an outline of the reasons for choosing the proposed action
- 2.2.7 A statement of the mitigation actions proposed in respect of any adverse impacts identified under paragraph (e)
- **2.2.8** Details of individuals, organizations, government offices, ministries, non-governmental organisations, villagers, local councils and others who have an interest, expertise, or jurisdiction regarding the proposal and whom have been consulted.
- **2.2.9** A summary of the results of the public consultations held in regards to the Project

- **2.2.10** Recommendations on the selected alternatives, mitigation measures, monitoring, other studies, analysis, and any additional consultation that may be required
- **2.2.11** An environment management plan (EMP) incorporating socio cultural aspects, as required by the TOR
- **2.2.12** A recommendation as to whether an environmental bond incorporating socio cultural aspects should be taken from the proponent, and the nature and amount of such bond
- 2.2.13 Any other matter specified in the ToR

# 2.3 Guiding Principles for the Assessment of the Potential Significant Impacts

The EIA report should state the criteria adopted in assessing the proposed Project and its impact such as compliance with relevant legislation, policies, standards, community acceptance and maximization of environmental, socio cultural and economic benefits and minimization risks. All environmental impacts, incorporating socio cultural aspects, that are likely to be significant, should be assessed.

- 2.4 In preparing the EIA report, the suggested approach would require that Predictions of environmental, socio cultural, cultural heritage and economic impacts are based on scientifically supported studies.
- 2.5 The EIA report is to present all technical data, sources or authority and other information used to assess impacts
- 2.6 The methods used to undertake any specialist studies are outlined, together with any relevant assumptions and professional, traditional or scientific judgments
- 2.7 The scientific reliability of investigations and predictions is indicated, including the estimated degree of certainty or, if possible, statistical confidence
- 2.8 Proposed measures to mitigate and manage identified issues are described and evaluated
- 2.9 Residual impacts that are not quantifiable are described qualitatively, in as much detail as reasonably practicable
- 2.10 Alternatives to the major sites for infrastructure are described
- 2.11 All phases and aspects of the project should be described in the EIA report, including pre-construction, construction, operation and decommissioning, including final rehabilitation of the mine and redundant infrastructure
- **2.12** Both direct and indirect impacts of the NJV managed mining related activities should be identified and assessed.

### 3.0 CONTENTS OF THE EIA REPORT

It is preferred that the EIA report generally follows the format and contents outlined in this part of the ToR. If this is not possible, guidelines describing how the EIA report responds to the ToR should be included in the appendices.

The EIA is a tool that will comprehensively assesses all aspects of any mining project, it will take heed and capture project aspects pertaining to socio-economic, environmental, social, technical and any other attribute that may deemed necessary to be considered.



#### 3.1 Executive Summary

The structure of the executive summary should follow that of the EIA report, and focus on the key issues to enable the reader to obtain a clear understanding of the Project and its potential adverse and beneficial environmental, socio cultural and economic impacts, and the management measures to be implemented by NJV to mitigate all residual negative impacts.

The executive summary should include:-

- 3.1.1 The title of the project
- 3.1.2 Name and contact details of the proponent
- 3.1.3 A concise statement of the aims and objectives of the Project
- 3.1.4 The legal framework, decision-making authorities and advisory agencies
- **3.1.5** A description of the alternative options considered and reasons for the selection of the proposed development option
- **3.1.6** A brief description of the project (pre-construction, construction, operational activities, rehabilitation) and the existing environment, including detailed maps of the proposed project location
- 3.1.7 An outline of the principal environmental, social, cultural socio cultural heritage and economic impacts and benefits forecasted, and the proposed management strategies and commitments to minimise the significance of the adverse impacts

#### 3.2 Introduction

The introduction sections of the EIA report should include:-

- 3.2.1 The title of the Project
- 3.2.2 Name and contact details of the proponent
- 3.2.3 A concise statement of the aims and objectives of the Project
- 3.2.4 A description of the proponent, including information on the proponent's history, contact information and corporate philosophy with respect to environmental stewardship incorporating socio cultural aspects
- 3.2.5 Information on the nature of the proponent's management structure and organisational accountability for the design, construction, operation, modification and decommissioning of the project; the implementation of mitigation measures and monitoring and the management of the potential adverse effects
- 3.2.6 An outline of the background and need for the Project
- 3.2.7 The Environmental Impact Assessment (EIA) Process
- 3.2.8 The legal framework, decision-making authorities and advisory agencies
- **3.2.9** A brief summary of all technical studies to be undertaken and their purposes.

#### 3.3 Project Description

The objective of this chapter is to describe the Project through construction, operation and decommissioning (including rehabilitation). This information is required to allow assessment of all aspects of the Project, including which approvals may be required and how they may be managed through the life of the Project.

This chapter should include:-

- 3.3.1 Overview of regional and local geology, including all geotechnical studies, description of the resources to be explored, developed and mined
- **3.3.2** Description of alternative options considered and reasons for the selection of the proposed development option
- 3.3.3 Description of project lifecycle, including construction, operations, rehabilitation and closure. This description should include description of time frames, as well as types and methods of construction, equipment to be used during each phase, activities involved in all aspects of project operations, rehabilitation activities during all of the project phases, and conceptual mine closure plan
- 3.3.4 Description of all the proposed transportation routes including the primary access route to be provided by the Namosi Access Road, and how the Waidina Road will be used for the Project and whether any modification is proposed to these roads. This will include all transport activities for both heavy and light vehicles both during constructions and mining phases
- 3.3.5 Description of the key components of the Project through the use of text and design plans where applicable, including:-
  - 3.3.5.1 Description of the mining, and the location and layout of key components
  - 3.3.5.2 Description of the stockpiling of low grade ore in the Southern Low Grade Ore Stockpile (SLGOS)
  - 3.3.5.3 Description of the lifeline for low grade and high grade ore
  - 3.3.5.4 Description and management of topsoil removed during vegetation clearing and project construction
  - 3.3.5.5 Description (including flowchart) of the ore processing, and the location and layout of key components of the processing plant
  - 3.3.5.6 Description of the location, design, operation and closure of waste rock and tailings management in the proposed Co-disposal Storage Facility (CDSF) and alternatives considered during Project planning. This will also include the management of both waste & waste-water from the CDSF



- 3.3.5.7 Description of operational water management including water source, extraction rate (extraction impact survey), power supply, labor supply, and management of hazardous goods
- **3.3.5.8** Description of ancillary facilities, offices and associated infrastructure alternatives
- **3.3.5.9** Description of the Proposal for shipment of the 'concentrate/refined materials' from the site and the Bulk Handling Facility

#### 3.4 Consultation

This chapter should include a description of all historical and project-related public consultation activities, aligned to the Free Prior and Informed Consent (FPIC) process [as agreed to during the 2014 National Consultations including Naviti Workshop]. It should identify potentially affected areas and stakeholder groups within this area. The key issues, concerns and aspirations raised by the communities during the stakeholder engagement should be summarised and correlated to where they are addressed in the EIA.

- **3.4.1** The methods used in the development of the stakeholder engagement programmes and details of stakeholder engagement activities undertaken
- 3.4.2 List of all interested parties and stakeholders who were consulted at various stages of the public consultation process
- 3.4.3 Categories of stakeholders consulted (including men, women, youth, vulnerable groups) especially the rural communities as the level of awareness and exposure is different amongst the group and therefore their responses will be different
- **3.4.4** It is important that public consultations are made accessible to landowners who live in our urban areas and abroad.

#### 3.5 Physical Environment

**3.5.1** Describe any proposed diversion of the current river/creeks systems and its impacts on

impacto on	
3.5.1.1	Land Boundaries as this has been an issue of concern for
	landowners as it tends to at times either increase or decrease
	the area of land of the concerned landowners and can develop
	into disputes

**3.5.1.2** I-Qoliqoli boundaries

3.5.1.3 Surface water quality

**3.5.1.4** Groundwater quality

3.5.1.5 Freshwater ecosystems

3.5.1.6 Terrestrial ecosystems



- 3.5.1.7 Identify the risk in case of a failure of the CDSF and its potential impacts on the physical environment (worst case scenario)
- 3.5.1.8 A detailed assessment of the effects of changes in the physical environment on the people since they rely heavily on their natural resources for their livelihood and survival.

#### 3.5.2 Land

- 3.5.2.1 Describe the geology and topography of the Project area to take into account the geological hazards in the area, including seismic hazards.
- 3.5.2.2 Describe the soils of the project area
- **3.5.2.3** Assess the suitability of the soils for rehabilitation, and their availability for rehabilitation activities
- **3.5.2.4** Determine the potential for soil erosion and measures to minimise the effects of any such erosion.
- 3.5.2.5 Identify putrescible and industrial waste sources.
- **3.5.2.6** Examine and recommend suitable mitigating and abatement measures.
- 3.5.2.7 Assess the potential impacts of the proposal on the land.
- 3.5.2.8 An assessment of the effect of changes in the physical environment in providing substrates for the establishment of invasive weed species.

#### 3.5.3 Climate and Natural Risks

- 3.5.3.1 Analyse and describe the local meteorology of the Project area, in particular, describe the rainfall patterns, storm intensity and prevailing winds
- 3.5.3.2 Describe the natural risks (for example, earthquakes, landslides, flooding) that may occur within the Project area and also to the nearby villages and communities
- 3.5.3.3 Evaluate the potential risk for the Project to be affected by these risks (for example, CDSF failure), and any consequent environmental and/or socio cultural impacts
- 3.5.3.4 Climate change consideration: Assess the potential of the Project's carbon impact and should include the lost  $CO_2$  uptake, and  $CO_2$  emitted by machines during the life time of the project
- **3.5.3.5** Evaluate the potential risks to the Bulk Handling Facility from changes in sea level on the south coast of Viti Levu



#### 3.5.4 Surface Water

- 3.5.4.1 Describe the annual and seasonal surface water regimes in wet and dry seasons for the Project area, the response of catchments in the Project areas to rainfall events and the water balance of catchments in the Project area
- 3.5.4.2 Describe the baseline water quality (physical and chemical) including sediment quality, of all water courses in the Project area including the Bulk Handling Facility at Mahaffey, Namelimeli.
- **3.5.4.3** Examine anticipated water withdrawal for the projects use and surface water diversions on the drainage patterns in the areas surface flows
- 3.5.4.4 Provide a description of the drinking water sources and quality at the villages in the Project area and including the villages likely to be affected by the Project
- **3.5.4.5** Assess the potential impacts of the Project on surface water quality and quantity within the Project area and downstream of it, including marine water quality
- **3.5.4.6** Determine the potential for Acid Mine Drainage and contaminant leaching into surface water
- 3.5.4.7 Determine the potential and impact of erosion of soils and mine wastes into surface waters including other connecting rivers/ streams
- ${f 3.5.4.8}$  Determine the stability and impact of the CDSF on surface waters

#### 3.5.5 Groundwater

- 3.5.5.1 Describe the groundwater regimes, including quality and quantity, for the Project area and the link, if any, between groundwater and surface water
- **3.5.5.2** Determine the potential for Acid Mine Drainage and contaminant leaching in groundwater
- 3.5.5.3 Assess the potential of the Project to cause changes in groundwater levels flows, quantity and quality for both the wet and dry seasons, including groundwater effects following Project closure
- 3.5.5.4 Make reference to the management of groundwater with regard to the proposed mining method and, how ground water will be managed given the pit may go well below water table.

### 3.5.6 Air Quality

3.5.6.1 Characterise the current air quality of the Project area.



- **3.5.6.2** Identify all potentially significant emission source locations including mobile sources, stationary sources, and fugitive emissions
- **3.5.6.3** Identify the dominant/prevalent wind direction and the potential impacts of emissions from the propose operation to the environment, including villages and farming areas.
- 3.5.6.4 Assess the potential of incidental releases of mercury
- **3.5.6.5** Assess the potential air quality impacts anticipated due to the mining operation and processing facility
- 3.5.6.6 Assess the potential of air quality impacts anticipated on villages, nearby communities and urban area during both the construction and mining phases and the impact on biological receptors such as vegetation, fish, wildlife and human health

#### 3.5.7 Noise and Vibration

- 3.5.7.1 Identify noise and vibration-sensitive locations in the project area
- 3.5.7.2 Characterise the baseline noise levels within the project area
- 3.5.7.3 Quantify noise emissions expected from the Project
- **3.5.7.4** Assess probable increases in noise and vibration levels at sensitive locations as the result of the Project
- **3.5.7.5** Assess the anticipated noise impacts of vehicular traffic in villages, rural and in urban areas during both construction and mining phases
- 3.5.7.6 Identify the closest human receptors, i.e. villages and communities, to any project- generated noise. Assessment of the potential effects for the identified human receptors to any project generated noise

## 3.6 Biological Environment

## 3.6.1 Terrestrial Ecology

- **3.6.1.1** Map and describe the baseline vegetation communities and habitats of the Project area
- 3.6.1.2 Prepare an inventory of existing flora and fauna species of the Project area, noting, in particular, rare, threatened and culturally important species
- **3.6.1.3** Assess the spatial extent of proposed forest cover to be removed during the project
- 3.6.1.4 Assess the dependence of the people/ communities on the surrounding terrestrial ecology for everyday living (through which nutritionally healthy foods, traditional medicine and totems are found).

- **3.6.1.5** Identify species, both within and outside the Project Area, that have the potential to alter terrestrial ecosystems
- **3.6.1.6** Assess potential impacts to terrestrial ecology through Project activities and likely affected areas outside the project boundary.

### 3.6.2 Freshwater Ecology

- **3.6.2.1** Prepare an inventory of freshwater fauna (invertebrates and vertebrates) in the project area
- 3.6.2.2 Determine and describe key habitats
- **3.6.2.3** Describe how Project-related activities may affect fish and fish habitat in the Project areas
- 3.6.2.4 Assess the dependence of the people/ communities on the surrounding freshwater ecology for everyday living (through which nutritionally healthy foods traditional totems are found).
- 3.6.2.5 Assess potential impacts to freshwater ecology through Project activities
- 3.6.2.6 Identify species, both within and without the site, that have the potential to alter freshwater ecosystems

### 3.6.3 Marine Ecology

- 3.6.3.1 Prepare an inventory of key marine ecology at the Bulk Handling Facility and any other marine ecosystems that may be affected by downstream impacts from the Project
- **3.6.3.2** Determine key habitats, including a discussion on the current level of disturbance
- 3.6.3.3 Assess impacts to marine ecology, including invertebrates/ vertebrates' habitat and consumptive fish use, from downstream impacts and the Bulk Handling Facility
- **3.6.3.4** Identify species, both within and outside the Project Area, that have the potential to alter marine ecosystems

## 3.6.4 Invasive Species

- 3.6.4.1 Identify potential invasive species, both within and outside the Project Area for each stage of their life cycle (aquatics, air-borne, mitigation, replanting)
- 3.6.4.2 Describe the biosecurity protocols to be put in place to identify pathways and prevent vehicles / machinery / plant / boats / etc. from bringing in invasive (plant parts, invertebrates, reptiles); this should include any area from wharf to mine where the project or its vehicles / transport systems travel and include all roads

**3.6.4.3** Roads / line / tracks need to be identified as pathways for mongooses / rats and mitigation measures put in place

## 3.7 Socio cultural, Cultural Heritage and Archaeological Significant

#### 3.7.1 Cultural Heritage

- **3.7.1.1** Identify, describe and map cultural and archaeological significant, heritage sites located within the Project area
- 3.7.1.2 Assess potential impacts of the Project on these sites
- 3.7.1.3 Discuss and plan disturbance, avoidance, recovery or preservation of sites as necessary through the development of Cultural Heritage Management Plans

#### 3.7.2 Visual Amenity

- 3.7.2.1 Describe the current visual amenity of the Project area and determine visually sensitive locations including on the transport routes
- 3.7.2.2 Provide representations of proposed landscape modification

### 3.7.3 Traffic and Transport

- **3.7.3.1** Determine existing traffic levels and types of traffic on local roads to and from the Project area
- 3.7.3.2 Predict changes in traffic as a result of the Project
- **3.7.3.3** Assess potential impacts of increased traffic on sensitive locations (villages, bridges, landscapes etc.) including in urban areas
- 3.7.3.4 Assess potential impact on port and harbor facilities
- **3.7.3.5** Identify impacts socio cultural Determine existing traffic levels and types of traffic on local roads to and from the Project area
- **3.7.3.6** Identify impacts (social, socio-economic, physical, ecosystem, traffic increase etc.) of upgrading the Namosi Road
- 3.7.3.7 Assess potential impacts of transport of hazardous and other material
- **3.7.3.8** Describe the transport of the concentrate from the mine site to the Bulk Handling Facility
- 3.7.3.9 Identify the average number of truck trips per day (both to the Suva Port and the Bulk Handling Facility and returning from these locations)
- **3.7.3.10** The anticipated load and fuel capacity of the trucks used to transport the concentrate
- **3.7.3.11** Provide a review of the background dust levels along the proposed transportation corridor

3.7.3.12 Assess the accidents/ risks of transportation of hazardous materials to and from the project site passing through villages, communities and settlements

### 3.7.4 Community Health

- **3.7.4.1** Describe the current health status, and health profile of the communities in the Project area
- 3.7.4.2 Describe the current community support services in the Project area, use of health services, institutional arrangements and planning commitments for health services in the Project area, and the range of other health facilities in the Project area
- **3.7.4.3** Examine potential impacts on community health infrastructure as a result of the Project

## 3.7.5 Human Health and Ecological Risk

- **3.7.5.1** Examine human exposure to contaminants in air, water, soil and food, based on data provided from physical study program
- 3.7.5.2 Describe and assess the human health and ecological risk based on screening assessment of the contaminants of concern for baseline evaluation and for pollutants expected from the project. Food contaminants are to be assessed based on dietary intake at the local level and food contaminant data
- 3.7.5.3 Identify the mechanism, existing sources of contaminant pathways and provide projections on potential cumulative contamination impacts

## 3.7.6 Socioeconomic Impact

- **3.7.6.1** Describe and characterise the existing socioeconomic environment of the Project area
- **3.7.6.2** Describe the current land uses in the Project area, the landscape, topography and any unique topographic features
- 3.7.6.3 Identify potential negative impacts and benefits to the economy of Fiji and to the directly affected population (Namosi/ Naitasiri province)
- 3.7.6.4 Assess the potential impact of the Project on communities/ villages and their activities; including, community values, community life and socio cultural/traditional institutions
- 3.7.6.5 Assess cumulative socio cultural impacts
- **3.7.6.6** Develop and discuss socio cultural and economic impact of the project, both beneficial and negative impacts.

- 3.7.6.7 Identify positive and negative beneficial socio cultural and economic impacts to land owners, occupiers and existing land users along the Waisoi Naqali junction and Waisoi Nabukavesi junction.
- 3.7.6.8 Identify and assess the impact on other provinces affected by the development particularly villages in Naitasiri, Tailevu and Rewa that use the water bodies linked to the mining area.
- 3.7.6.9 Assessment of level of interaction of new workforce during the construction and Mining Phase with the local communities and villages around the mining area
- 3.7.6.10 Assess the relationship between the landowning units, villages and communities with the project
- 3.7.6.11 Assess the relationship between iQoliQoli owners with the Project
- 3.7.6.12 On an economic point of view, how will this project impact on Fijis economy in relation to other tradable goods or export commodities

# 3.8 Summary of Impacts, Mitigation and Sustainability

- 3.8.1 Summarize the environmental, socio cultural and economic impacts and benefits of the project and the steps that would be taken to mitigate adverse impacts
- 3.8.2 Examine long and short term sustainability

## 3.9 Management Plans

A range of management plans are required for the management of impacts identified in the study. The plans should be geared towards the potential end land uses and should be submitted three months after approval of the EIA.

- 3.9.1 Develop a Construction Management Plan that identifies issues that may arise during the construction phase, identifying measures which will be implemented to reduce the impact. This will include issues both on the environment and on the communities. This will be submitted three months prior to the commencement of construction work
- 3.9.2 Develop an Environmental Management Plan (EMP) that identifies measures which could be implemented to reduce the impact of the Project on the receiving environment
- 3.9.3 Develop a Cultural Heritage Management Plan that identifies measures that could be implemented to avoid or mitigate impacts to cultural heritage resources including monitoring and chance find procedures
- 3.9.4 Develop a Socio cultural Management Plan that identifies measures which could be implemented to reduce the impact of the Project on socioeconomic factors. This will also include a Socio cultural Impact Monitoring System



### 3.9.5 Other plans to be developed include

- 3.9.5.1 Transport Management Plan (land and offshore)
- 3.9.5.2 Timber Management Plan
- 3.9.5.3 Terrestrial Biodiversity Management Plan
- 3.9.5.4 Tailings and Waste Rock Management Plan
- 3.9.5.5 Water Management Plan
- 3.9.5.6 Noise Management Plan
- 3.9.5.7 Air Emissions and Dust Management Plan
- 3.9.5.8 Marine Ecology Management Plan
- 3.9.5.9 Hazardous Materials Management Plan
- 3.9.5.10 BHF Management Plan
- 3.9.5.11 Biosecurity Plan
- 3.9.5.12 Reclamation/rehabilitation and Closure Plan. This should demonstrate a progressive rehabilitation schedule of the mine area including long-term activities for rehabilitation, reclamation and closure. It will also include unplanned closure, care and maintenance and post closure management as well as the process to agree with landowners the end land use to the greatest extent practicable.

#### 3.9.6 Monitoring Plan

Provide an overview of the proposed monitoring programs that will be incorporated into each phase of the project taking into consideration long term monitoring plans which will be developed during the post application permitting system stage.

The intent is to ensure that remedial actions are taken if the results of a monitoring program deviate from any established operational standards on environmental performance, or predictions on environmental impacts.

#### 3.10 References

Any publications or papers, both published and unpublished, that were used as references should be listed.

#### 3.11 Appendices

The EIA report should include, as appendices:

- 3.11.1 A copy of the TOR
- 3.11.2 A list of persons, interest groups and agencies consulted during the EIA
- 3.11.3 A list of advisory agencies consulted, with an appropriate contact
- **3.11.4** The names of, and work done by, all personnel involved in the preparation of the EIA
- 3.11.5 Supporting technical reports

3.12 Responsibilities

The EIA report should be signed and dated by Coffey and NJV, or their representatives. The signatories will assume full responsibility for the contents of the EIA report document.

Aminiasi Qareqare (Mr.)
A/Director of Environment