ENVIRONMENTAL IMPACT ASSESSMENT WORKING GROUP

Under the 1982 United Nations Convention on the Law of the Sea (LOSC) States Parties have a general obligation to protect and preserve the marine environment. This obligation encompasses responsibilities to prevent, reduce and control the potential effects of activities which may cause substantial pollution of, or significant and harmful changes to, the marine environment. In the deep seabed beyond national jurisdiction, the International Seabed Authority (ISA), on behalf of the States Parties to the LOSC, is responsible for administering the mineral resources of the Area, including prospecting, exploration, and exploitation activities for these resources. As part of its responsibility, the ISA is charged with taking the necessary measures to ensure effective protection for the marine environment from harmful effects which may arise from such activities.

As part of the progression of mining operations from exploration to exploitation, there is a strong need for detailed environmental assessment, and the development of a formal Environmental Impact Assessment (EIA) process by the ISA. At the International Workshop on Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals, held in Nadi, Fiji, a working group was convened to formulate a provisional template for guiding the format of an EIA by companies wishing to apply for exploration licenses.

The template that has been developed represents a generalised framework, which is targeted at the requirements of the ISA for The Area, but is also intended to be applicable for deep sea mining (DSM) inside EEZs. The template is designed with the three main types of DSM in mind: polymetallic nodules, seafloor massive sulphides, and cobalt-rich ferromanganese crust. Furthermore, several EIA sections provide the opportunity to utilise the results of baseline data collection and test-mining activities during the preceding exploratory phases. The template is not designed to be heavily prescriptive, but to enable sufficient flexibility to be suitable for a wide range of situations and information levels. Brief notes are included on the required content of sections and sub-sections, but the Working Group acknowledged there was further work to be done in expanding guidelines on completion of the EIA.

NOTE: where sections may not be applicable to the ISA in its regulation of The Area, text is in red. Where the Working Group was uncertain about this, some text is in orange for the ISA Secretariat to evaluate. Guidance notes are in italics.

ISA Technical Guidance Document: Conducting an Environmental Impact Assessment and Preparing an Environmental Impact Statement for Mineral Exploitation in The Area

INTRODUCTION

This *Technical Guidance Document* is intended to assist and guide prospective developers with an intention to carry out mineral exploitation activities in The Area.

The developer must submit an Environmental Impact Statement that provides full documentation of all environmental and social issues and committing to the employment of relevant mitigation measures in relation to the development activity. The Environmental Impact Statement should substantially comply with this *Technical Guidance Document*. It should be noted that the Environmental Impact Assessment process and the Environmental Impact Statement are key inputs, together with comments received from referral bodies and other stakeholders, that will be used by The Authority to assess whether or not a proposal is recommended for approval.

The recommended format for the Environmental Impact Statement is outlined below. It is intended to provide The Authority and other stakeholders with unambiguous documentation of potential environmental impacts on which The Authority can base its assessment and any subsequent approval that may be granted.

CONTENT OF THE ENVIRONMENTAL IMPACT STATEMENT

The applicant should provide detailed responses to all areas below that are relevant to the development proposal.

EXECUTIVE SUMMARY

One of the main objectives of this section is to provide an explanation of the project for non-technical readers.

Information provided in the Executive Summary shall concisely describe the following -

- description of the proposed development activity and its objectives,
- anticipated bio-physical and socio-economic impacts (direct/indirect, reversible/irreversible) of the activity,
- details of remedial actions that are proposed,
- description of all benefits to be derived from the project,
- details of consultation program undertaken by the applicant, including degree of public interest,
- description of end-use plans for the development activity

NOTE:

The summary should not be more than fifteen [THIS IS LONG!!??] pages in length and be written in English. Appendices should be attached, as appropriate, to the Environment Impact Statement in order to provide complete information on the development proposal.

1. INTRODUCTION

1.1 Background

This section should briefly summarise the project being proposed.

1.2 Project History

This section should briefly summarise the work undertaken to date to get to the point if submitting an EIS. This should include a brief description of the deposit discovery and the exploration and test mining activities conducted to date.

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1.3 Project Proponent

This section should summarise the credentials of the Contractor proposing the development, including major shareholders, other tenements owned or applied for, and their jurisdictions, etc.

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1.4 Purpose of and Justification for the Development

The purpose of this section is to ensure that only development activities that are in line with The Authority's goals and objectives are considered for approval.

This section should provide information on the viability of the proposed development activity. These details shall include but not limited to the following –

- information on the capital cost associated with the development,
- details of the proponent's technological expertise and resources,
- results of any feasibility investigations that have been carried out,
- information on the extent of landowner and/or resource owner support, including a copy of the formal written approval of their consent,
 - the anticipated life-span and development phases of the project.
- 1.5 This Report
 - 1.5.1 Statutory Context
 - 1.5.2 EIS Scope
 - 1.5.3 Report Structure

2. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

This section should provide information on relevant legislation, Agreements or policy that are applicable to the proposed mining operation. It is separated into four sections each covering a different aspect of the legal framework.

2.1 Applicable Mining and Environmental Legislation, Policy and Agreements (the applicant should note any legislation, regulation or guidelines that apply to the management or regulation of mining or the environment in The Area or any other relevant jurisdiction-existing or proposed. Note how the proposed operation will comply with these requirements).

- 2.2 Other Legislation, Policy and Regulations (Describe any other legislation, policy or regulations that do not apply specifically to Mining or Environment, but may be relevant to the proposal (e.g., shipping regulations, offshore mining certificates, potentially many more inside jurisdictional boundaries).
- 2.3 Relevant International Agreements (this subsection describes other more general international agreements that could be applicabble to the operation, such as UNCLOS, CBD regulations, UNGA resolutions).
 2.3.1 Environmental

2.3.2 Other

2.4 International Standards, Principles and Guidelines (any other non-legal standards or guidelines that may apply to best practise in the operation-e.g. Equator Principles).

3. STAKEHOLDER CONSULTATION

This section describes what consultaion has occurred prior to the application with interested parties and stakeholders with an interest in the DSM application

- 3.1 Relevant Jurisdiction Consultation Requirements (this outlines any international or jurisdictional consultaion obligations)
- 3.2 Stakeholders (list the relevant stakeholders woth whom consultation has taken place)
- 3.3 Public Consultation and Disclosure Program (describe the goals and consultation workshops-meetings that have occurred prior to this)
 - 3.3.1 Goals
 - 3.3.2 Consultation Methods
 - 3.3.3 Scientific Workshops
 - 3.3.5 Cultural Heritage Considerations
- 3.4 Consultation Outcomes
- 3.5 Continuing Consultation (what further consultation with stakeholders is needed)

4. DESCRIPTION OF THE PROPOSED DEVELOPMENT

All relevant details on the proposed development activity required under this section should be provided where it is applicable to the proposal. Details to be provided under this section may include the following –

- 4.1 Project Area Definition
 - 4.1.1 Location

This section should include detailed location maps (drawn to scale), site layout, etc.

- 4.1.2 Associated Activities This section should include a description of any supporting activities and infrastructure required (e.g. ports, barges, transportation corridors, crew transfers, etc)
- 4.2 Project Components

This section should provide background information to the proposal, technologies to be employed, etc. For polymetallic nodule exploitation, Contractors should reference ISBA/16/LTC/7, Section IV C.

This section should include information on methods of exploitation site selection including alternatives investigated (see Section 4.3), relevant diagrams and drawings.

- 4.2.1 Mining
- 4.2.2 Transport/Materials Handling
- 4.2.3 On site processing
- 4.3 Alternatives Considered and Rejected from Analysis
 - 4.3.1 Mining
 - 4.3.2 Transport/Materials Handing
 - 4.3.3 On site processing
- 4.4 Mineral Resource

This section should include the type of resource proposed for extraction (e.g. nodules, seafloor massive sulphides, crusts or other), the type of comodity, the grade and volume. Estimates of inferred and indicated resource should be provided.

- 4.5 Offshore Mining and Support Equipment This section should include descriptions of the offshore mining and support equipment (including vessels) required to carry out the activity.
- 4.6 Mining

4.6.1	Mine Plan
4.6.2	General Mining Sequence

- 4.7 Hazardous Materials Management
 - 4.7.1 Description of Hazardous Materials
 - 4.7.2 Transportation
 - 4.7.3 Storage, Handling and Disposal

4.8 Workforce

- 4.8.1 Workforce Description
- 4.8.2 Employment Policy
- 4.8.3 Capacity building objectives and commitments

4.9 Construction and Operating Standards

This section will outline the design codes to which the equipment will be built as well as the health and safety standards that will be adhered to.

- 4.9.4 Design Codes
- 4.9.5 Health and Safety
- 4.10 Commissioning
- 4.11 Decommissioning and Closure
 - 4.11.1 Offshore Infrastructure
 - 4.11.2 Onshore Facilities

5. DEVELOPMENT TIMETABLE (DETAILED SCHEDULE)

Describe the overall timetable, from implementation of the mining programme through to decommissioning and closure of operations. This should include the major phases of the operation, as well as milestone dates by which tasks are expected to be completed. We recommend use of quarterly time increments .Information on the development timetable provided under this section should clearly communicate the different phases in the development proposal. For reasons of clarity, a Flow chart, Gantt or PERT chart should be used where appropriate. Information provided in this section shall include but not limited to the following –

- Information on funding arrangement for proposed activity or if availability of funds is subject to this or other approvals being granted,
- pre-construction activities,
- construction schedule, staging, etc.,
- commissioning and operational schedules,
- infrastructure development schedule.
- closure schedule.

6. DESCRIPTION OF THE EXISTING OFFSHORE ENVIRONMENT

In this section, the applicant is to give a detailed account of knowledge of the environmental conditions at the site. It provides the baseline description of geological, oceanographic and biological conditions against which impacts will be measured and assessed.

- 6.1 Regional Overview (provide a general description of the environmental conditions in the broad region of the site-major oceanographi, geological and biological setting)
- 6.2 Studies Completed (describe what research/exploration activities have occurred which can provide relevant information for this EIA and future activities. These should be detailed in the appendices, and submission of the environmental reference baseline data collected for the ISA as outlined in exploration license conditions; IBSA/16/LTC/7, Section III should accompany this EIS)
- 6.3 Special Considerations for Site (describe any notable characteristics of the site-whether geological, oceanographic or biological-such as hydrothermal venting, seamounts, high surface productivity, eddies, endemic fauna),
- 6.4 Meteorology and Air Quality
- 6.5 Geological Setting (describe the general geological landscape and topographic features of the site)
- 6.6 Physical Oceanographic Setting (describe oceanographic aspects such as currents, sedimentation rates)
- 6.7 Water Quality (describe water mass characteristics at the site at various depths, including nutrients, particle loads, temperature and dissolved gas profiles, etc)
- 6.8 Sediment Characteristics (Substrate composition with special reference to sediment composition, pore water profiles, and grain size)
- 6.9 Biological Environment (*This section is divided by depth regine for the site into a description of the various biological components and communities that are present or utilise the area*

6.9.1 Pelagic (from the surface down to 200m - this includes plankton, surface/near surface fish such as tunas, but also utilization by seabirds and marine mammals)

6.9.2 Midwater (open water from a depth of 200m down to the seafloor and includes zooplankton, mesopelagic and bathypelagic fishes, deep-diving mammals)

6.9.3 Benthic (benthic invertebrate communities including infauna and demersal fish. This should include considerations of species richness, biodiversity, faunal densities and community structures)

- 6.10 Natural Hazards (volcanism, seismic activity etc)
- 6.11 Noise (ambient noise if any, influence of ongoing exploration and maritime activity)

6.12 Description of the Existing Onshore Environment (describe the conditions of any onshore processing operation, as well as any relevant environmental information on transit lanes/areas)

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7. SOCIO-ECONOMIC ENVIRONMENT

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This section deals with the existing socio-economic data, in particular existing users of the sea where the Project is proposed to take place. Information provided in this sub-section shall include but not limited to the following:

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7.1 Existing Resource Utilisation

7.1.1 Fisheries (If the project area occurs within an area used by fisheries, then this needs to be described here).

7.1.2 Marine Traffic (*This section describes the non-project related marine traffic occurring within the project area*).

7.1.3 Other (this section will deal with other uses of the project area that are not related to fisheries or marine traffic (e.g. telecommunications cables, other mineral exploitation projects, etc).

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- 7.2 Cultural/Historic Resources (this section will deal with items of cultural/historic significance that occur within the project area (e.g. shipwrecks)).
- 7.3 Socio-economic and Socio-cultural Issues

Issues that may arise within and outside of the project area should be identified including whether this is a direct or indirect outcome of the physical, biological or socio-economic effects of the proposed development activity.

7.4 Onshore Socio-economic environment It is envisaged that this section will only be applicable to projects located within EEZs.

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8. ENVIRONMENTAL IMPACTS, MITIGATION AND MANAGEMENT MEASURESERROR! BOOKMARK NOT DEFI

In this section, the applicant is to provide a detailed description and evaluation of potential impacts of the mining operation to environmental components identified in Section 6. The format is consistent between sections, so for each component there is a description of:

- (i) the nature and extent of any impact;
- (ii) measures that will be taken to avoid, mitigate or minimize such impact; and
- (iii) what unavoidable impacts will remain.

Note there will be some repetition between sections, where an impact of the mining operation will affect several components of the environment at the site.

8.1 Description of potential impact categories

In this section an overview and description of general impact catagories caused by the mining operation are described. This is not expected to be detailed, but introduce the major types of effect, such as habitat removal, crushing of animals, creation of sediment plumes, noise, light etc. Where experience has been gained from activities during the exploratory phase of the programme (e.g., test mining trials), this should be described).

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- 8.2 Results of test mining operations
- 8.2.1 Description of the test mining activity
 - 8.2.1.1 Location and scale of operation
 - 8.2.1.2 Non-proprietary description of equipment used
- 8.2.2 Non-proprietary description of ore recovered

8.2.3 Description of impact assessment activities (sampling equipment, sample types, locations, replication, measurements, monitoring, etc.)

8.2.4 Results of impact assessment activities

Reference paragraphs 17 and 18 of ISBA/16/LTC/7 and full results in an appendix

- 8.3 Air Quality (this relates to any effect on the air quality from the surface or subsurface operations)
 - 8.3.1 Impacts and Issues to be Addressed
 - 8.3.2 Environmental Management Measures
 - 8.3.3 Residual Impacts
- 8.4 Geological Setting (what impacts does the mining have on the topography of the site or geological/geophysical composition)
 - 8.4.1 Impacts and Issues to be Addressed

8.4.2 Environmental Management Measures

8.4.3 Residual Impacts

- 8.5 Physical Oceanographic Setting (describe effects on current speed/direction, sedimentation rates etc)
 - 8.5.1 Impacts and Issues to be Addressed
 - 8.5.2 Environmental Management Measures
 - 8.5.3 Residual Impacts
- 8.6 Water Quality (effects such as sediment plume generation and clarity of water, particulate loading, water temperature, dissolved gas and nutrient levels etc, in all levels of the water column)
 - 8.6.1 Impacts and Issues to be Addressed
 - 8.6.2 Environmental Management Measures
 - 8.6.3 Residual Impacts
- 8.7 Sediment Characteristics (e.g., changes in the sediment composition, grain size, density, pore water profiles)
 - 8.7.1 Impacts and Issues to be Addressed
 - 8.7.2 Environmental Management Measures
 - 8.7.3 Residual Impacts
- 8.8 Biological Communities

This section should describe the effects on individuals, communities, populations and metapopulations from the proposed activity.

8.8.1 Pelagic (includes plankton, surface/near surface fish such as tunas, but also seabirds and marine mammals)

- 8.8.1.1 Impacts and Issues to be Addressed
- 8.8.1.2 Environmental Management Measures
- 8.8.1.3 Residual Impacts

8.8.2 Midwater (including *zooplankton, mesopelagic and bathypelagic fishes, deepdiving mammals*)

- 8.8.2.1 Impacts and Issues to be Addressed
- 8.8.2.2 Environmental Management Measures
- 8.8.2.3 Residual Impacts

8.8.3 Benthic (e.g., benthic epifaunal and infaunal invertebrate communities and demersal fish).

- 8.8.3.1 Impacts and Issues to be Addressed
- 8.8.3.2 Environmental Management Measures
- 8.8.3.3 Residual Impacts
- 8.9 Natural Hazards (volcanic eruptions, seismic activity, sea floor instability, tsunami)
 - 8.9.1 Impacts and Issues to be Addressed
 - 8.9.2 Environmental Management Measures
 - 8.9.3 Residual Impacts
- 8.10 Noise (noise above the existing levels, lights also)
 - 8.10.1 Impacts and Issues to be Addressed
 - 8.10.2 Environmental Management Measures
 - 8.10.3 Residual Impacts

8.11	surface/s affect wa 8.10.1 Es	<i>ter acidity)</i> stimated GHG Emissions	missions. Plus anything that may Error! Bookmark not defined. Error! Bookmark not defined.
	8.10.2 GI	HG Emissions Assessment	Error! Bookmark not defined.
		Error! Bookmark not defined	l.
8.12	Maritime Safety and Interactions with Shipping		pping Error! Bookmark not defined.
	8.12.1	Issues to be Addressed	Error! Bookmark not defined.
	8.12.2	Mitigation and Management M	easures Error! Bookmark not defined.
		Project Safety	Error! Bookmark not defined.
		Interaction with Other Vess	els Error! Bookmark not defined.
	8.12.3	Residual Impacts	Error! Bookmark not defined.
8.13	Biosecuri	ity (issues such as ballast water,	with ship movement into the area

and out for servicing /processing)		Error! Bookmark not defined.
8.13.1	Issues to be Addressed	Error! Bookmark not defined.
8.13.2	Mitigation and Management Measures	Error! Bookmark not defined.
8.13.3	Residual Impacts	Error! Bookmark not defined.

8.14	with re;le	anagement (vessel waste manaement, rea evant conventions, legislation or principles, on and energy balance). Issues to be Addressed Mitigation and Management Measures Residual Impacts Error! Bookmark not defined.	methiods of cleaner Error! Bookmark not defined. Error! Bookmark not defined.	Error! Bookr
8.15	interactions between various impacts, where they may have cumulative effects-where various impacts add together)			
	8.15.1 Proposed operations impacts (cumulative within the scope of the mining proposed here)			
	8.15.2 <i>region)</i>	Regional operation impacts (cumulative l	between activities where known in the	
8.16	 Onshore/Nearshore environment (where appropriate describe general issues related to transit from/to the site, port operation etc. This subsection kis to be developed in as much detail as approprate givent he particular circimstances of ther mining operation and processing location) 8.16.1 Error! Bookmark not defined.Issues to be AddressedError! Bookmark not defined. 8.16.2 Mitigation and Management Measures Error! Bookmark not defined. 8.16.3 Residual Impacts Error! Bookmark not defined. 		lefined.	

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9. SOCIO-ECONOMIC IMPACTS

In this section, the applicant is to provide a description and evaluation of potential impacts of the mining operation to socio-economic components identified in Section 7. The format is consistent between sections, so for each component is a description of:

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- 9.1 Existing Resource Utilisation
 - 9.1.1 Fisheries
 - 9.1.1.1 Issues
 - 9.1.1.2 Mitigation and Management
 - 9.1.1.3 Residual Impacts
 - 9.1.2 Marine Traffic
 - 9.1.2.1 Issues
 - 9.1.2.2 Mitigation and Management
 - 9.1.2.3 Residual Impacts
 - 9.1.3 Other (e.g. Telecommunications)

9.1.3.1 Issues

9.1.3.2 Mitigation and Management

9.1.3.3 Residual Impacts

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9.2 Cultural/Historic Resources (e.g. shipwrecks, IUCN Heritage listings)

9.2.1 Issues

9.2.2 Mitigation and Management

9.2.3 Residual Impacts

9.3 Socio-economic and Socio-cultural Issues

This section will describe elements of economic benefit or impact, community development, industry diversity and skills development, immigration of people and community conflicts.

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Error! Bookmark not defined. 9.3.1 Issues to be addressed (these include aspects such as supply chain, utilities, access to water, fuel, impact to local communities in terms of access to supplies)

9.3.2 Mitigation and Management Measures (project benefits, consultation efforts,etc) Error! Bookmark not defined.

9.3.3 Residual Impacts

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10. ACCIDENTAL EVENTS AND NATURAL HAZARDSERROR! BOOKMARK NOT DEFINED.

Environmentally hazardous discharges resulting from accidental and extreme natural events are fundamentally different from normal operational discharges of wastes and waste waters. This section should outline the possibility/probability of accidental events occurring, the impact they may have, the measures taken to prevent or respond to such an event, and the residual impact should an event occur.

10.1	Extreme \	Weather	Error! Bookmark not defined.
	10.1.1	Issues to be Addressed	Error! Bookmark not defined.
	10.1.2	Mitigation and Management Measures	Error! Bookmark not defined.
	10.1.3	Residual Impacts	Error! Bookmark not defined.

10.2 Natural Hazards (e.g., volcanic eruption, seismic events, slope slumping)Error! Bookmark not defined.

10.1.1	Issues to be Addressed	Error! Bookmark not defined.	
10.1.2	Mitigation and Management Measures	Error! Bookmark not defined.	Error! Bookn
10.1.3	Residual Impacts	Error! Bookmark not defined.	Error! Bookr

^{10.3} Accidental Events (e.g Hazardous Material Leakage or Spillage, Fire and Explosion, Collisions, Other - including potential loss of equipment) Error! Bookmark not defined.

10.3.1 Issues to be Addressed	
10.3.1 Issues to be Addressed	

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- 10.3.2 Mitigation and Management Measures Error! Bookmark not defined.
- 10.3.3 Residual Impacts

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11. ENVIRONMENTAL MANAGEMENT, MONITORING AND REPORTING

Sufficient information should be provided to enable The Authority to anticipate possible environmental management, monitoring and reporting requirements for an Environment Permit. Information listed should reflect the proponent's environmental policy (environment management system) and the translation of that policy to meet the requirements under this Section and Section 8 (POTENTIAL IMPACTS OF PROPOSAL) during different stages in the project life, from operations to decommissioning and closure. Information detailed in this section shall include but not be limited to the following - **Error! Bookmark not defined.**

11.1 Organisational Structure and Responsibilities

This section should show how the Contractor's environmental team fits into the Contractor's overall organisational structure. Responsibilities of key personnel should be outlined.

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11.2 Environmental Management System

It is understood that a full Environmental Management System may or may not exist at the EIS submission stage, however this section should outline the standards that will be considered and/or aligned with in developing the Environmental Management System for the project.

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11.3 Environmental Management Plan

An Environmental Management Plan will be submitted as a separate document for The Authority's approval prior to exploitation operations commencing.

However, this section should provide an overview of what the EMP will entail. This section shall include, as a minimum, the following sections:

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11.3.1 Mitigation and Management

This section should summarise the actions and commitments that have arisen from the impact minimisation and mitigation strategies.

11.3.2 Monitoring Plan

This section should summarise the monitoring plan approach and program. For development proposals associated with nodule exploitation, Contractors should reference ISBA/16/LTC/7, Section IV(D) and IV(E). Error! Bookmark not defined.

- 11.3.3 Approach
- Error! Bookmark not defined.

11.3.4 Program (*This section should provide an overview* of the envisaged monitoring program (it is noted further detail will be provided in the EMP)).

11.3.3 Closure Plan

It is expected that a Closure Plan will be submitted as a separate document for The Authority's approval. However, this section should provide an overview of what the Closure Plan will entail, including decommissioning, continued monitoring, and rehabilitation measures, if applicable.

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 11.4
 Reporting
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 11.4.1
 Monitoring (results of monitoring studies should be reported to the Authority)
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 11.4.2
 Incident reporting (any incidents must be reported)

12 STUDY TEAM

This section should outline the people involved in carrying out the Environmental Impact Assessment studies and in writing the Environmental Impact Statement. If independent scientists or other experts were involved in any of the work, they should be listed under "EIS Specialist Subconsultants".

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- 12.1 Proponent
- 12.2 Lead Environmental Consultant(s)
- 12.3 EIS Specialist Subconsultants Error! Bookmark not defined.

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13. REFERENCES

This section should provide details of reference materials used in sourcing information and/or data used in the Environmental Impact Statement.

14. GLOSSARY AND ABBREVIATIONS

15 APPENDIX

An Appendix should be provided which includes all supporting studies.

Contractors should ensure all non-proprietary environmental data from supporting studies, exploration and test mining has been provided to The Authority in electronic format, as specified by the The Authority, prior to submitting the EIS to The Authority for their review.

CONFIDENTIAL INFORMATION.

Details of classified information relating to a manufacturing or industrial process or trade secret used in carrying on or operating any particular undertaking or equipment or information of a business or financial nature in relation to the proposed activity should be clearly defined. Such information would be classified as "confidential information" and excluded from the Environmental Impact Statement before the document is made available for public review. **Error! Bookmark not**

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Composition of the Working Group that developed the EIA Template:

Malcolm Clark, NIWA, New Zealand Noleen Karan, Office of Attorney General, Fiji Danny Alberdi, Neptune Minerals, USA Nic Bax, CSIRO, Australia Chuck Fisher, Penn State University, USA Samantha Smith, Nautilus Minerals, Australia Charles Morgan, Panning Solutions Inc., USA Ross McDonald, Anindilyakwa Land Council, Australia Asipeli Palaki, Ministry of Environment, Tonga Tetsujiko Toyohara, JOGMEC, Japan Harvey Cook, Neptune Minerals Inc, Australia Kiseong Hyeongm, KORDI, Korea Jun Jiang, COMRA, China Jiancai Jin, COMRA, China Peni Suveimakama, Foreign Affairs, Fiji Sereima Dovibua, Mineral Resources Department, Fiji Luna Nong, Mineral Resources Department, Fiji [Nii Odunton, Adam Cook (ISA, Jamaica) present at times]