Vanuatu affordable & resilient settlements project (VARS)

Environmental and Social Management Plan: Ohlen Mataso

Prepared for Government of Vanuatu
Prepared by Beca International Consultants Ltd
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Contents

Acronyms Glossary **5**

1 Introduction **6**

1.1 Scope and Objectives of the ESMP 6

1.2 Disclosure 6

2 Project Description **7**

2.1 Ohlen Mataso Community and Project Site 7

2.2 Scope of Works 8

2.3 Design Features and Construction Considerations 15

2.4 Works Components 15

2.5 Ancillary Activities 16

2.6 Associated Facilities 16

3 Legal Policy and Regulatory Framework **17**

4 Description of Natural Environment **18**

4.1 Environmental Assessment 18

4.2 Local Environment 18

4.3 Geology 18

4.4 Climate and Rainfall 18

4.5 Surface Water and Hydrology 18

4.6 Biodiversity and Vegetation 19

5 Description of the Social Environment **20**

5.1 Ohlen Mataso settlement 20

5.2 Land Tenure 20

5.3 Community facilities 20

5.4 Local traffic 20

5.5 Sensitive Receptors 21

6 Impacts and Mitigation Measures **22**

6.1 Design Phase Impacts and Mitigation Measures 22

6.2 Pre-Construction Phase Impacts and Mitigation Measures 23

6.3 Construction Phase Impacts and Mitigation Measures 23

6.4 Operation Phase Impacts and Mitigation Measures 24

7 Roles and Responsibilities **25**

8 Community and Stakeholder Consultation **27**

8.1 Stakeholder Engagement Plan 27
8.2 Stakeholder Groups Ohlen Mataso 27
8.3 Communicating with Affected Communities, Businesses and Individuals 28
8.4 Grievance Redress Mechanism 28
9 Environmental and Social Mitigation Tables 30
9.1 Design and Tender Phase 30
9.2 Pre-Construction Phase 31
9.3 Construction Phase 31
9.4 Operational Phase 32
9.5 Ohlen Mataso Detailed Design & Tender Phase Mitigation Plan 33
9.6 Ohlen Mataso Pre-Construction Phase Mitigation Plan 35
9.7 Ohlen Mataso Construction & Demobilisation Phase Mitigation Plan 40
9.8 Ohlen Mataso Operational Phase Mitigation Plan 53
10 Monitoring 55
10.1 Introduction 55
10.2 Scope and Parameters 55
10.3 Methodology and Frequency 57
10.4 Monitoring Plan 58
11 Contractors ESMP (CESMP) 60
12 ESMP Implementation 61
12.1 Integration of the ESMP into project management 61
12.2 Integration of the ESMP into the Project 61
12.3 ESMP Reporting 62
12.4 ESMP Implementation Budget 62
12.5 Civil Works 64
13 Contingency Planning 65
Appendix 1: Environmental Permit Ohlen Mataso Drainage Works 66
Appendix 2: CESMP Content and Required Sub-plans 71
Appendix 3: VARS Code of Conduct 79
Appendix 4: Grievance Redress Mechanism (Help Desk) Process and Log Format 81
Appendix 5: ESIRT Notification Protocol 88
Appendix 6: Sample CESMP Monitoring Checklist 90
Appendix 7: Summary of Community Consultations 95

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Acronyms Glossary

Acronym	Definition
BoQ	Bill of Quantities
CESMP	Contractor Environmental and Social Management Plan
CLO	Community Liaison Officer
CSP	Contractor Safety Plan
DEPC	Department of Environmental Protection and Conservation
DSS	Design and Supervision Specialist
EIA	Environmental Impact Assessment
EPC Act	Environmental Protection & Conservation Act
ESF	Environmental and Social Framework
ESHG	Environmental Health and Safety Guidelines
ESMP	Environmental and Social Management Plan
ESO	Environment and Safety Officer
ESIRT	Environmental and Social Incident Response Toolkit
ESS	Environmental and Social Standards
GoV	Government of Vanuatu
GRM	Grievance Redress Mechanism
MIPU	Ministry of Infrastructure and Public Utilities
MoLNR	Ministry of Lands and Natural Resources
OHS	Occupational Health & Safety
PMU	Project Management Unit
PPE	Personal Protective Equipment
PWD	Public Works Department
SEAH	Sexual Exploitation Assault Harassment
TMP	Traffic Management Plan
WMP	Waste Management Plan

1. Introduction

This Environmental and Social Management Plan (ESMP) has been prepared as a stand-alone document for the Ohlen Mataso settlement works under Component 2 of the Vanuatu Affordable and Resilient Settlements (VARS) Project, which is being implemented by the Government of Vanuatu (GoV) through the Ministry of Lands and Natural Resources (MoLNR). This ESMP addresses the full scope of internal and external works under subcomponent 2.1 Resilient Settlement Upgrading and 2.2 Sustainable Urban Drainage. The works are to be undertaken within and around the Ohlen Mataso settlement, located in Port Vila, Vanuatu.

An Environmental and Social Impact Assessment (ESIA) was not required for this activity, and this ESMP serves as the primary instrument for environmental and social risk management.

The ESMP addresses environmental and social risks and mitigation measures across all phases of the project, including design, tendering, pre-construction, construction, and operation. It outlines site-specific measures to prevent, reduce, or manage adverse impacts on the environment and affected communities, and supports integration of good international practice, including the requirements of the World Bank Environmental and Social Framework (ESF) and applicable national legislation.

The ESMP also defines institutional roles and responsibilities, provides monitoring arrangements and compliance mechanisms, and sets out requirements for the Contractor Environmental and Social Management Plan (CESMP). The ESMP forms part of the Supplementary Specifications to the construction contract and is legally enforceable through both contract conditions and the Environmental Permit issued for the project.

1.1 Scope and Objectives of the ESMP

This ESMP covers works in the Ohlen Mataso settlement area, including both internal improvements within the settlement and external drainage upgrades along adjacent roads. The internal works include the installation of community and pathway lighting, construction of concrete and coral footpaths to improve drainage and access, trash rack installation, and accessibility improvements for one household. The external drainage works include construction of roadside drains, culverts, kerbs, concrete pavements, and a stormwater discharge structure, all designed to reduce flooding and improve stormwater management around the Ohlen Mataso area.

The objective of this ESMP is to ensure that the works are implemented in an environmentally and socially responsible manner, in line with the Government of Vanuatu's regulatory requirements and the Environmental and Social Standards (ESS) of the World Bank. The ESMP establishes the mitigation and monitoring measures required to manage identified risks and impacts and provides the framework for community engagement, grievance redress, and compliance monitoring throughout the project lifecycle.

1.2 Disclosure

In accordance with the legal requirements of the Government of Vanuatu and the World Bank's ESF, this ESMP has been publicly disclosed by the VARS Project Management Unit (PMU). The ESMP is available in both hard and digital formats. Hard copies are available at the offices of the Ministry of Lands and Natural Resources (MoLNR), the Port Vila City Council (PVCC), and the project site in Ohlen Mataso. Digital versions are accessible via the MoLNR website.

2. The ESMP will be reviewed and updated as needed throughout implementation. All approved updated versions will also be disclosed through the same channels to ensure continued public access and transparency.Project Description

2.1 Ohlen Mataso Community and Project Site

Located approximately 3.5 km north of the center of Port Vila, the Ohlen Mataso settlement is situated at the upper end of a larger 16.4-hectare catchment area that slopes down to the southeast. Figure 1 shows the location of Ohlen Mataso along with the other VARs settlements.

The 2.4-hectare settlement is home to approximately 300 residents, which are organised into five zones. The community lacks vehicular access and relies on a pedestrian network that is 2-3 meters wide to get around the settlement. This network includes a single semi-public pathway connecting the eastern and western roads, which is often used by the community.

Housing in Ohlen Mataso is generally of poor quality, featuring earth floors and walls made of kapa steel or low, unreinforced blocks. The limited space of high-density housing has led to some households encroaching into the road reserve. Each household comprises about 7-8 people.

The lower parts of the community frequently flood during rainfall events, making access to the settlement difficult, and stormwater runoff is eroding internal footpaths through the settlement.

Community members have also raised concerns about speeding vehicles on the roads surrounding the settlement and inadequate lighting being a safety concern.

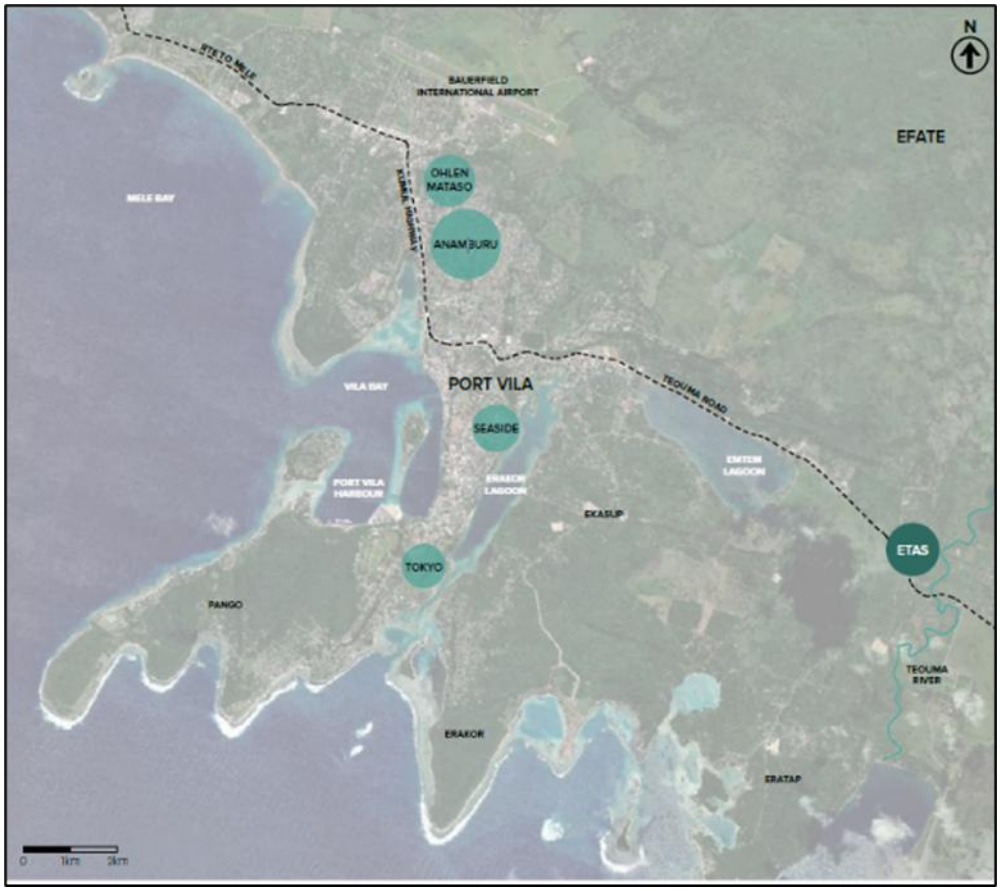

Figure 1: VARS project location

2.2 Scope of Works

The works covered by this ESMP include both internal and external components:

A. Internal Works:

Community Lighting

- 25x community lights (3m pole height): These solar powered flag lights are designed to illuminate key areas and provide sufficient lighting for facial recognition.
- 11x pathway lights (50cm pole height): These bollard-style, solar-powered lights are intended for wayfinding.

Internal footpaths and drainage

- Construction of internal concrete paths throughout Ohlen Mataso to assist in channelling water through the settlement and improve ease of access throughout the settlement
- Construction of internal coral paths with timber edging to assist with internal drainage
- Minor ground reshaping on the mid-southwestern area of the settlement, in front of the meeting house and church

Accessibility improvements

- New ramp providing access to the church and meeting house.

B. External Works:

Street Lighting

- 9x streetlights (6m pole height): Placed along Western Road (4 lights), Southern Road (2 lights), and Eastern Road (2 lights), these solar- powered streetlights will be spaced 50-70m apart.

Trash Racks

- 13x trash racks placed along Western Road (5 trash racks), Southern Road (4 trash racks), and Eastern Road (4 trash racks).

Western Road Drainage

- Approx 140m of kerb and channel drainage along the western edge of the Western Road, constructed along the southern side of the road and topped with new concrete pavement.
- Approx 155m of swale along the western edge of the Western Road, beginning where the kerb and channel drainage ends (approx 134m down Western Road) at the northern intersection of the western road.
- 3x short sections of concrete channels located between the swale system

Southern Road Drainage

- Approx 75m of box channel (with footpath on top) approx 1m wide and 0.925m deep along Southern Road
- 3x sections of concrete channels along the northern side of Southern road draining in to infiltration pond.
- Stormwater pipe (approx 1m diameter) connecting from box and channel drainage to infiltration pond.
- Minor shaping of ground on road reserve to help direct water into channels.
- Kerb and channel (approx 100m along Southern Road, tying into Eastern Road.

Eastern Road Drainage

- Approx 160m of swale along eastern side of road, draining towards infiltration basin.
- 1x section of concrete channel located between the swale system

Infiltration pond

- Establishment of infiltration pond (approx 20m by 30m) at northwestern side of the intersection of Eastern and Southern roads.

Road and footpath improvements

- Concrete roads –
  - Southern road (667) 4m wide carriageway / approx. 125m
  - Eastern road (665) 5m wide carriageway / approx. 160m
  - Western road (667) 5m wide carriageway / approx. 134m
- Footpath – approx 100m in length along the north side of the southern road wrapping around corner of eastern road.
- Around the southwestern corner of site, there is painted linework to clearly demarcate a shoulder space for pedestrians and a transition from the footpath to ground level. This is to enable vehicle turning for larger vehicles) but also provide a space for pedestrians.

- 2m wide pedestrian ramp linking from footpath into the existing 2m wide internal path – this is located on the southern road and provides a transition for the level difference between the external footpath and the internal path.
- Traffic calming speed hump constructed on Western Road.

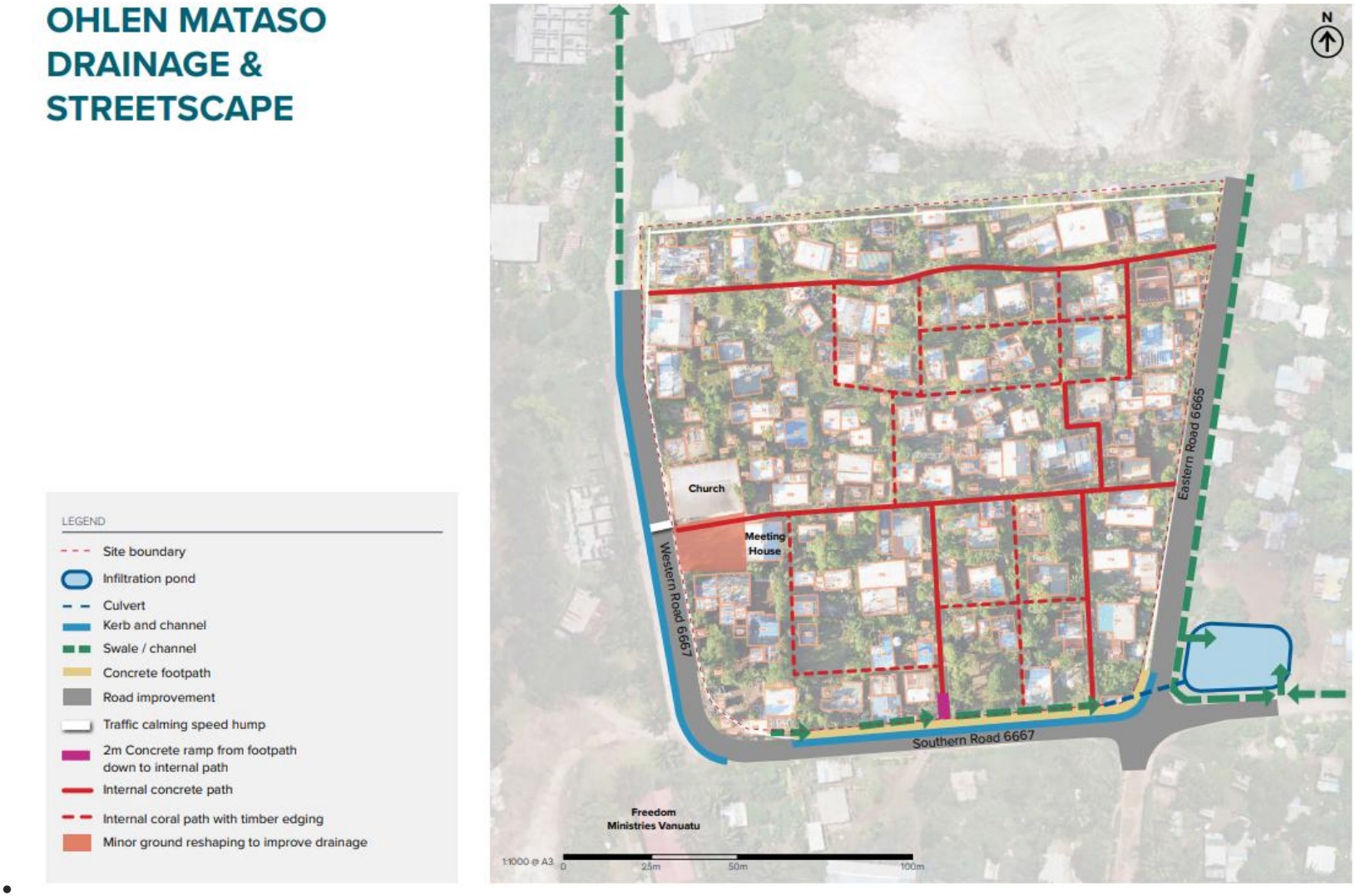

Figure 2. Ohlen Mataso external drainage and streetscape upgrades

OHLEN MATASO LIGHTING

Street lights
Solar powered
Illumination for vehicular and pedestrian road use
50-70m spacings
6m pole height

Community lights
Solar powered
Flag light
Illuminates desired areas and allows facial recognition
3m pole height

Pathway lights
Solar powered
Bollard style for wayfinding
50cm pole height (waist height)

Figure 3. Ohlen Mataso Lighting & Pathways Plan

OHLEN MATASO TRASH RACKS

Figure 4. Ohlen Mataso Trash Racks Plan

2.3 Design Features and Construction Considerations

In order to improve the current poor stormwater management in this catchment and its impacts on people and the environment, an improved drainage system is proposed. This consists of both external drainage improvements and internal footpaths to assist with internal drainage.

In addition, lighting and trash racks are proposed to improve safety, wayfinding and waste management within Ohlen Mataso.

The designs take into account not only the immediate functional objectives but also long-term environmental, social, and resilience considerations. Measures are incorporated to avoid or reduce adverse impacts on surrounding communities and ecosystems.

Key design principles:

- Design life of 100 years for new structures, taking into account climate change impacts and long-term maintenance requirements.
- All structures designed to be seismically resilient.
- Scour protection designed for 100 years flood events, ensuring resilience to climate-related extremes.
- Street lighting and trash rack design must facilitate future inspection and maintenance by Port Vila City Council (PVCC), which road and drainage design will be maintained by the Public Works Department (PWD).
- Community lighting and footpath design must facilitate future inspection and maintenance by Community.

Key considerations for construction:

- The works will take place primarily within the densely occupied settlement of Ohlen Mataso
- The densely occupied settlement means that there is little or no room for storage of any equipment or construction materials, and that construction works will be occurring in close proximity to households. There are a number of risks associated with the works including social disruption and health and safety risks for residents of Ohlen Mataso. Regular and clear communications with the community will be critical before and during construction to assist in management of these risks.

2.4 Works Components

The Ohlen Mataso works comprises of the following components of work:

- Excavation of new stormwater drains along main roads around the settlement.
- Establishment of an infiltration pond.
- Excavation, clearing and repair of existing drains.
- Concrete surfacing and protection for roads in the immediate area as part of the drainage improvements.
- Installation of traffic calming speed hump along Western Road
- Installation of street lights, community lights, and pathway lights
- Installation of trash racks
- Installation of accessibility ramps in front of the church and meeting house
- Installation of concrete and coral paths throughout Ohlen Mataso

2.5 Ancillary Activities

The Contractor will require access to construction materials, aggregate stockpiles, concrete batching facilities, equipment laydown and maintenance areas, project offices, site shelters and storage yards. These facilities may either be existing and already in use by local contractors or newly established by the contractors (including overseas contractors) for the purpose of project delivery.

The development of a dedicated workers' accommodation camp is explicitly prohibited under the VARS project.

Under the VARS project, these support activities are considered ancillary to the main works and are therefore referred to as ancillary activities. This includes—but is not limited to—access roads, material sourcing and storage areas, spoil and waste disposal areas, plant and equipment storage and servicing areas, and any site amenities or temporary infrastructure established by the Contractor to support the works.

All ancillary activities must be appropriately sited, managed, and operated to avoid or mitigate adverse environmental and social impacts. These activities fall within the scope of this ESMP, and must be reflected in the Contractor's Environmental and Social Management Plan (CESMP).

The contractor is responsible for identifying, assessing, and managing all environmental and social risks associated with ancillary activities in accordance with Vanuatu legislation and the World Bank Environmental and Social Framework (ESF) (refer to Section 3).

2.6 Associated Facilities

Under the World Bank ESF, associated facilities are:

- Directly and significantly related to the project;
- Carried out or planned to be carried out contemporaneously with the project and
- Necessary for the project to be viable and would not be constructed if the project did not exist.

For this subproject, associated facilities are unlikely, unless:

- A government-led road upgrade is conducted solely because of the drainage works
- A public sewerage or wastewater connection is created at the discharge point
- A new landfill or spoil disposal site is developed specifically to manage excavated material from this project

We can state that no associated facilities have been identified at this stage, but that any facilities meeting the ESF definition will be screened and assessed accordingly.

3 Legal Policy and Regulatory Framework

The VARS project is subject to compliance with the laws of Vanuatu and international policies where applicable. The key laws and policies of relevance include:

- Environmental Protection and Conservation Act (EPC Act)
- Environmental Impact Assessment (EIA) Regulations
- Public Roads Act
- Waste Management Act
- Vanuatu Building Code
- Employment Act and the Health and Safety at Work Act

In addition, the project aligns with the World Bank's Environmental and Social Framework (ESF) and is guided by the following Environmental and Social Standards (ESS):

- **ESS1:** Assessment and Management of Environmental and Social Risks and Impacts
- **ESS2:** Labour and Working Conditions
- **ESS3:** Resource Efficiency and Pollution Prevention and Management
- **ESS4:** Community Health and Safety
- **ESS5:** Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- **ESS6:** Biodiversity Conservation and Sustainable Management of Living Natural Resources
- **ESS 8:** Cultural Heritage
- **ESS10:** Stakeholder Engagement and Information Disclosure

Additionally, the project will apply the World Bank Group's **Environmental, Health and Safety Guidelines (EHS Guidelines)** and will follow the World Bank's **Environmental and Social Incident Response Toolkit (ESIRT)** for the management of incidents (see Appendix 5 for the ESIRT Notification Protocol).

4 Description of Natural Environment

4.1 Environmental Assessment

The purpose of the project component is to provide infrastructure improvements to the Ohlen Mataso community, to improve the current drainage situation where lower parts of the settlement are often flooded during rainfall events and erosion of internal footpaths due to stormwater runoff throughout the settlement. The provision of lights is also intended to improve wayfinding and safety within the community. Proposed disability access to the Church and community hall will allow access for the disabled and elderly members to access these community facilities more easily.

An environmental assessment for the Ohlen Mataso drainage works was undertaken as part of the application to the Department of Environmental Protection and Conservation (DEPC) for an Environmental Permit under the EPC Act. The permit has been granted and is appended to this ESMP.

4.2 Local Environment

Ohlen Mataso is an urban environment with virtually no open space and limited trees, almost all of which are within private yards. Surrounding land use is primarily residential with small stores, a church and a meeting house.

4.3 Geology

The area lies on volcanic soil substrates with moderate permeability, which influences infiltration rates and runoff characteristics. Infiltration pond design considered the infiltration rates, which were developed based on previous infiltration testing information and infiltration testing completed as part of the Port Vila Urban Development Project, the earlier phase of the VARS project and by Beca in October 2024. Soakage rates vary significantly, often dependent on the presence (or otherwise) of fissures in the underlying geology. Several fissures are found in the immediate area.

4.4 Climate and Rainfall

Port Vila has a tropical climate with distinct wet (November to April) and dry (May to October) seasons. Annual rainfall averages approximately 2,300 mm, with intense rainfall events frequently causing flash flooding. Climate variability, including El Niño and La Niña patterns, may influence the severity of storm events and droughts.

4.5 Surface Water and Hydrology

The settlement is subject to flooding across the south-east quadrant, adjacent to the crossroads that are the low point of a basin draining the surrounding hillsides. Stormwater runs down the eastern and southern roads adjacent to the settlement, damaging the road (which has recently been raised in mid-2024).

The western side of the site generally drains to the west towards the adjacent road. Smaller rainfall events discharge to the north via the existing roadside grassed channel, while the majority of the rainfall will sheet flow west onto the adjacent properties to the west where the ground drops away.

There is a large south/eastern catchment that also contributes to the flooding in the low area around the crossroads. The catchment has no overland flow outlet point until water levels at the crossroads

reach a depth of about 1.5 m when water will start to spill to the west by the southwest boundary of the settlement.

4.6 Biodiversity and Vegetation

The environment provides limited habitat for terrestrial fauna and what remains tends to be disturbed by human activity. Species observed or expected to be encountered include birds (such as Indian Myna and house sparrow), lizards, insects and invertebrates as well as introduced and invasive species such as the brown rat.

Ohlen Matso is a built up, densely developed area with no native vegetation of note. Some boundary planting, including burao, hibiscus for fences as well as ornamental plantings is present on the site as well as small garden plots, small fruit trees and fodder plants (such as aelan kabis).

5 Description of the Social Environment

5.1 Ohlen Mataso settlement

Ohlen Mataso is a densely populated settlement established by the relocation of people from the site of the current Parliament house in the early 1990s. Residents are mostly from Mataso by descent and most are long-term Vila residents. The current resident population is approximately 300, spread over 5 zones and around 54 household lots.

The settlement is well organised with committees set up for each of the five zones. These committees are led by zone leaders and include female and youth representatives from the household groups. The committees sit under a chiefly structure.

5.2 Land Tenure

The settlement is located within a single registered land title, which lists four Mataso Chiefs as joint holders. Of the four, three have passed away, and the sole surviving Chief currently resides within the settlement.

Construction of the proposed infiltration pond will require the voluntary relocation of one household. This household constructed a temporary dwelling within the road reserve area located to the southeast of the settlement. The head of this household is employed at a management level and has agreed to relocate voluntarily, with support from the Ministry of Lands and Natural Resources (MoLNR).

The household has familial ties to the title holders of the adjacent land and explained that their occupation of the road reserve is temporary. They noted that they are amenable to relocating due to persistent flooding in the area and have accepted in-kind support to re-establish their home within the boundaries of the titled land.

A Land Due Diligence Report (LDDR) is being prepared to document and guide this process.

5.3 Community facilities

The Ohlen Mataso community hall and church are both located at the entrance to Ohlen Mataso. Both of these facilities are often used for community meetings, as is the open space in front of the community hall. The open space in front of the community hall is also used by children for informal play.

The Freedom Ministries church is located just south of the settlement and is accessed from the road that runs along the southern boundary of Ohlen Mataso. Access to and from the churches will be maintained during construction, and the churches will be kept informed in advance of construction works so that they are aware of the works and can plan ahead around any temporary access delays or restrictions during the week (works will be prohibited on Sundays).

5.4 Local traffic

The roads around Ohlen Mataso are used for access to the community, as well as a minor thoroughfare for people travelling through the wider area. Concerns have been raised by the community about cars speeding along local roads close to the community.

Alternative routes through the area are available to communities in the wider area. Nonetheless, construction planning should ensure continued access and minimal delays along the roads to the east,

west and south of Ohlen Mataso throughout the duration of works. Public communications must be timely, clear and ongoing to ensure community and road user awareness before and during works.

The Contractor is required to submit a Community Liaison Plan (CLP) and a Traffic Management Plan (TMP) to the PMU and DSS for approval no less than 21 days prior to the start of construction. The CESMP and all associated subplans must be approved by the PMU and DSS before any construction works may commence.

5.6 Sensitive Receptors

Sensitive receptors near the project area include residents, school children, churches and roadside businesses. These receptors may experience temporary impacts such as noise, dust, restricted access, and disruption during construction.

Mitigation measures such as dust suppression, noise controls, and maintaining pedestrian access will be implemented to reduce these impacts. Engagement with affected parties will ensure that disruptions are understood and managed collaboratively.

6 Impacts and Mitigation Measures

This section outlines the potential environmental and social impacts of the Ohlen Mataso settlement works and presents the corresponding mitigation measures. The impacts have been identified based on site investigations, stakeholder engagement, and screening using the World Bank Environmental and Social Standards (ESS). All impacts reflect conditions identified in the original internal and external ESMPs.

Impacts and mitigation measures are structured by project phase: design, pre-construction, construction, and operation.

6.1 Design Phase Impacts and Mitigation Measures

Potential Impacts:

- Community concern over infrastructure placement and potential land use conflicts.
- Risk of overlooking cumulative hydrological impacts, potentially worsening downstream flood risk.
- Social tension if resettlement is not transparently managed.

Mitigation Measures:

- Design roadside drains and internal pathways to capture stormwater and prevent property flooding.
- Install gross pollutant traps (grills) at culvert inlets.
- Design infiltration discharge to minimize erosion risks.
- Remove second infiltration pond from the southeast area per community request.
- Incorporate silt-reduction features and formal stormwater channeling.
- Specify vandal-proof lighting with long operational life.
- Secure written community and leaseholder approval for infrastructure locations.
- Retain vegetation outside direct construction zones; use sediment traps for cleared areas.
- Integrate ESMP/CESMP requirements into bid and contract documents.
- Design for future accessibility for inspection and maintenance by PVCC and PWD.
- Address cumulative hydrological impacts in design review.
- Implement protocols for Voluntary Relocation:
    - Conduct informed consultations.
    - Obtain written consent.
    - Prepare Land Due Diligence Report (LDDR)
    - Provide compensation/support and ensure access to Grievance Redress Mechanism (GRM).

6.2 Pre-Construction Phase Impacts and Mitigation Measures

Potential Impacts:

- Inadequate contractor awareness of site-specific ES risks.
- Insufficient preparation for worker management, community interface, or sensitive locations.
- Risks from mobilizing without an approved CESMP.

Mitigation Measures:

- Contractor to prepare and submit a comprehensive CESMP (incl. LMP, TMP, SEAH Plan, WMP) 21 days prior to mobilization.
- Verify arrangements for utilities, materials, sanitation, signage, and waste disposal.
- Conduct pre-construction SEAH and STI prevention training for all workers/subcontractors.
- Ensure understanding of the site, local conditions, and sensitive areas before commencing work.

6.3 Construction Phase Impacts and Mitigation Measures

Potential Impacts:

- Erosion, sedimentation, and land instability from excavation.
- Air quality degradation (dust, emissions), noise, and vibration.
- Solid and hazardous waste generation.
- Risk of groundwater contamination.
- Disruption to traffic, utilities, and community access.
- Health and safety risks to community and workers.
- Risk of SEAH and community grievance escalation.

Mitigation Measures:

- Maintain transparent community engagement and publish work schedules in advance utilizing the networks of Shefa Port Vila Land Transport Association (SPV LTA) and Vanuatu Chamber of Commerce (VCC) to inform transport operators and business houses of traffic disruptions.
- Engage Community Liaison Officer and dedicated ESO/OHSO.
- Implement detailed, approved work methods to minimize disruption.
- Prevent flooding and erosion during construction; stabilize slopes promptly.
- Fence infiltration pond at all times to prevent public access.
- Use dust suppression and noise-reduction measures.
- Manage traffic flow and avoid utility disruptions with clear planning and signage.

- Protect vulnerable groups, especially children and women.
- Prevent OHS incidents through training and equipment; manage hazardous materials responsibly.
- Allow reuse of clean fill by the community; dispose of other waste at Bouffa Landfill.
- Use defined access routes for construction vehicles; keep the site clearly marked.
- Adapt work schedules to minimize community disruptions (e.g., religious gatherings, school hours).

6.4 Operation Phase Impacts and Mitigation Measures

Potential Impacts:

- Blockage of drains and sediment traps leading to flooding.
- Erosion near culverts and drainage channels.
- Decreased functionality of infrastructure from lack of maintenance.
- Public safety risks from damaged or unfenced structures.
- Community frustration if infrastructure fails to meet expectations.

Mitigation Measures:

- Conduct regular inspections before and during rainy seasons.
- Remove silt, debris, and blockages routinely.
- Repair and reinforce erosion control structures and embankments.
- Maintain fencing and warning signage around the infiltration pond.
- Keep the public informed and encourage incident reporting.
- Assign road and drainage maintenance responsibility to Public Works Department (PWD).
- Assign streetlighting and trash rack maintenance to Port Vila City Council (PVCC).
- Integrate subproject monitoring data into broader urban infrastructure planning.

Residual impacts following implementation of the above mitigation measures are anticipated to be minor and site-specific. No long-term or irreversible impacts have been identified. All mitigation measures will be incorporated into contractor obligations and monitored throughout project implementation.

These and other potential impacts are set out in the main ESMP matrix table which can be found in Section 9.

7 Roles and Responsibilities

The effective implementation of this ESMP requires clear institutional roles and responsibilities, supported by qualified personnel and robust oversight mechanisms. The following entities will have key roles and responsibilities:

Table 1. Roles and responsibilities of entities involved

Entity	Role and Responsibility
Government of Vanuatu (GoV)	Through the Ministry of Lands and Natural Resources (MoLNR) as Implementing Agency, GoV will be responsible for overseeing the project and coordinating the project across the government through interagency technical and steering committees. The GoV will require compliance with national regulations, assistance with securing necessary permits, and ensuring the project's alignment with national policies. The Public Works Department (PWD) of the GoV will assist and advise in the proposed road design and the traffic management arrangements during construction. PWD will be responsible for the maintenance of the improved roads and drainage once works are completed. This will include period sludge removal of the infiltration pond.
Port Vila City Council (PVCC)	Through a formal arrangement with the MoLNR, the PVCC will take over management and oversight of the operation and maintenance of streetlighting and trash racks. The Municipal Police may be asked to assist implementation of traffic management during peak periods.
Project Management Unit (PMU)	Tasked by the GoV with overall project coordination, key stakeholder engagement and ensuring the implementation of the project including all environmental and social safeguards. The PMU is resourced with personnel specifically tasked to manage project implementation as well as experienced National and International Safeguards Specialists (environmental and social) who are responsible for overall approval, monitoring for compliance with the ESMP, World Bank policies and GoV legislation.
Design and Supervision Services (DSS)	Responsible for the development of design, supervision, preparing and responding to the measures set out in this ESMP. Responsible for supervision of the construction works including the successful implementation of the mitigations put forward in the ESMP, set out in the CESMP and implemented by the contractor.
Contractor	Prepares and implements the CESMP (Contractor Environmental and Social Management Plan), including all required subplans. Ensures all workers are trained and compliant with safeguards measures. Appoints a qualified ESO/OHSO to oversee daily implementation.
Environmental Safety & Occupational Health & Safety Officer (ESO/OHSO)	A trained individual employed by the contractor responsible for daily site-level E&S monitoring, compliance with CESMP, and coordination with DSS and PMU. Maintains records, conducts training, and responds to incidents to ensure worker and community safety through a documented approach set out in the CESMP and sub plans and procedures.
Community Liaison Officer (CLO)	Manages community and public engagement and facilitates coordination with and reporting to the VARS Grievance Mechanism -

Entity	Role and Responsibility
	Help Desk. Implements the Contractor's GRM by logging complaints, communicating with the community, and ensuring transparency. Facilitates outreach and coordination of SEAH awareness training.
Workers and Subcontractors	Must attend inductions and follow all E&S site procedures. Required to adhere to the Code of Conduct, report any incidents or hazards, and participate in toolbox talks.
Community & Stakeholders	Encouraged to participate in feedback to the contractor, DSS and PMU to help minimise social and other impacts. Understanding and use of the project's Grievance Redress Mechanism (Help Desk) for concerns is also needed to ensure complaints and grievances are dealt with promptly and respectfully.
World Bank Oversight	Ensuring compliance with its Environmental and Social Framework (ESF) and monitoring project performance through periodic reviews.

The contractor is required to prepare a Contractor's ESMP (CESMP) to demonstrate how the works will be controlled. The Contractor's ESMP must also be approved by both the World Bank and the PMU.

A copy of the requirements for the CESMP are included as Appendix 2 of this document.

8 Community and Stakeholder Consultation

Extensive community consultation with the Ohlen Mataso community has taken place starting in 2021 and then re-commencing from 2023 onwards. The community is well aware and supportive of the project as drainage security and access are all confirmed as a high priority.

Community members have had significant input into the development of the design for improvements to their community. Representatives have been advised of, approved and confirmed details of the final designs including locations of individual lights, improved access and the improved dual-purpose pathways and internal drainage. Refer to Annex 7 for a summary of community consultation to date.

Further minor changes may take place during construction should these be required at the behest of or with agreement from community members.

8.1 Stakeholder Engagement Plan

A site-specific Stakeholder Engagement Plan (SEP) has been developed for VARS Component 2 including Ohlen Mataso. The current SEP was prepared to guide engagement activities during the project's design phase.

The SEP is a living document and will be updated prior to construction works commencing, to set out key communication and engagement activities required before and during the construction phase. The updated SEP will include key messaging about the construction phase to be disseminated to the Ohlen Mataso community and the general public. The SEP will be implemented through this ESMP in addition to additional consultation and discussions with communities and stakeholders through the DSS and PMU.

In addition, a Community Liaison Plan (CLP) will be developed by the Contractor to define their responsibilities related to stakeholder engagement. The CLP will operationalise the Contractor's role in implementing both the SEP and the ESMP's communication requirements.

The SEP will continue to be updated throughout the lifecycle of the project and disclosed to reflect any changes in project scope, design, or stakeholder context. The site-specific SEP for Ohlen Mataso will be revised to ensure inclusive engagement with all stakeholder groups, including traditional leaders, women, and youth.

82. Stakeholder Groups Ohlen Mataso

Key stakeholder groups for the Ohlen Mataso works are outlined in the table below.

Table 2. Stakeholder groups within the relevant sectors

Sector	Stakeholder Groups or Entities
National Government	• Department of Environmental Protection and Conservation (DEPC) • Public Works Department • Department of Urban Affairs and Planning • Ministry of Lands and Natural Resources (MoLNR) • Ministry of Finance and Economic Management (MFEM) • Ministry of Infrastructure and Public Utilities (MIPU) • Ministry of Internal Affairs (MIA) • Ministry of Climate Change, Adaptation, Meteorology and Geohazard
Local Governance	• Port Vila City Council • Municipal police

Sector	Stakeholder Groups or Entities
	• Kastom Chiefs • Members of Parliament
Affected Communities, Businesses and Individuals	• Ohlen Mataso community, including women, youth, Chiefs, Church and community leaders • Local businesses in immediate area • Road users in the surrounding area • Freedom Ministries Church
Affected Household	• A household living in the road reserve volunteered to relocate with support from MoLNR. This is a key stakeholder that will be closely monitored to ensure that MoLNR and the project is compliant with safeguards requirements.
Civil Societies and NGOs	• Shefa Port Vila Public Land Transport Association (key point of liaison for all public transport operators) • Vanuatu Chamber of Commerce (key point of liaison for all business operators)
General Public	The general public are stakeholders in the implementation of the road works that will be conducted along the road, as the works may impact on Port Vila residents using the roads around Ohlen Mataso to move through the area.

8.3 Communicating with Affected Communities, Businesses and Individuals

Communication and updates for local communities and stakeholders will take place well in advance (21 days) of works starting.

Communication will include the general public and the Ohlen Mataso community. Specific communications with directly affected parties will be undertaken by the Contractor and signed agreements will be presented to the DSS and PMU at least 7 days prior to commencement of works that directly affect stakeholders.

Regular messaging and information will be made to the general public at least 14 days ahead of road closures and traffic management.

The contractor will ensure the general public is kept up to date with all road and traffic management measures by publicly broadcasting through social and other media, including radio. The Contractor's Community Liaison Officer will liaise directly with the Shefa Port Vila Public Land Transport Association to ensure that public transport drivers are fully informed and directly with the Vanuatu Chamber of Commerce to ensure that business houses are fully informed.

The VARS Grievance Redress Mechanism (Help Desk) will be implemented to address any requests for information, complaints and grievances which arise during the course of implementing the project.

8.4 Grievance Redress Mechanism

During implementation of the works, it is possible that people may have questions, complaints or grievances with the project's performance which may include any aspect of the project's implementation. Issues may occur during project preparation, design, construction or during operation.

Questions, complaints and grievances must be addressed promptly, transparently, and without any form of retaliation or prejudice against the affected person (AP) or group raising the issue.

The project's Grievance Redress Mechanism (GRM) is referred to as 'Help Desk' and has been established to receive and respond to:

- Requests for information
- Complaints or concerns
- Grievances about the project or its contractors or subcontractors.

In addition to the Help Desk, the contractor Contractor will receive and register any complaints or concerns raised directly with their personnel. The Contractor is responsible for:

- Recording the nature of each complaint
- Documenting the steps taken to investigate and respond
- Reporting grievance records and resolutions to the PMU and DSS as part of their monitoring obligations

Contact information for the VARS Help Desk is provided in Appendix 4 of this ESMP.

Help Desk contact numbers, as well as the Contractor's Community Liaison Officer (CLO) details, will be widely publicised to community members. This will include:

- Display on project and community noticeboards
- Inclusion in all public consultation materials
- Ongoing verbal communication during community meetings and field visits

The grievance mechanism will be monitored for effectiveness, and all stakeholders—including vulnerable groups—will be encouraged to use it freely and without fear of reprisal.

9 Environmental and Social Mitigation Tables

This section presents the environmental and social mitigation measures required under this Environmental and Social Management Plan (ESMP). The measures are organized by project phase—**Design and Tender**, **Pre-Construction**, **Construction**, and **Operation**—and are presented in structured tables that follow this section.

Each table outlines:

- The **specific mitigation actions** required to manage identified risks;
- The **responsible parties** for implementation;
- The **project phase** in which the measure applies; and
- The **cost allocation**, where applicable.
- All ESMP and CESMP requirements must be embedded in:
- **Bid documentation**
- **Contractor Terms of Reference (TORs)**
- **Construction contract conditions**
- These documents must also include clear **compliance and enforcement mechanisms** to ensure implementation and accountability.

Monitoring requirements linked to these mitigation measures are detailed separately in **Section 10** of this ESMP.

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9.1 Design and Tender Phase

Design decisions significantly influence environmental and social outcomes throughout the project lifecycle. Key mitigation actions during this phase include:

- **Design for climate resilience** in all drainage and infiltration infrastructure, accounting for increased rainfall intensity and frequency.
- Integrate **environmental protection features** in detailed designs to address construction and operational risks.
- Clearly define **vegetation clearance boundaries** in drawings; prioritize avoidance of ecological disturbance.
- Incorporate **pedestrian and public safety** into infrastructure design, especially in high-use or vulnerable areas.
- Require **Traffic Management Plan (TMP)** development by contractors; embed TMP requirements in tender documents.
- Ensure **voluntary relocation** follows a documented, dignified, and consent-based process:
    - Conduct informed consultations with affected households;
    - Secure written consent;
    - Finalize and implement an **Land Due Diligence Report (LDDR)**

- Provide in-kind or cash **compensation and relocation support**;
- Ensure the household can access the **Grievance Redress Mechanism (GRM)** throughout.

9.2 Pre-Construction Phase

The pre-construction phase focuses on establishing systems and controls necessary to avoid or reduce anticipated impacts during implementation. Core actions include:

- Conduct **site inspections** to identify sensitive receptors and site-specific risks.
- Confirm **permitted sourcing and disposal areas**; avoid environmentally sensitive sites.
- Secure all **necessary permits** and integrate their requirements into the CESMP.
- Verify and approve **concrete batching and materials processing sites**, with DSS oversight.
- Appoint qualified **Environment, Safety, and Community Liaison Officers (ESO/OHSO and CLO)**, approved by DSS.
- Provide **advance notification** (minimum 7 days) to all stakeholders, including property owners and local businesses.
- Install **project signage** detailing CLO contacts, Help Desk, and GRM access.
- Conduct **training for workers and subcontractors**, including environmental, health, safety, and SEAH awareness.
- Ensure all workers sign a **Code of Conduct (CoC)** as part of the Labour Management Plan (LMP).
- Prepare and submit a **comprehensive CESMP**, including all required subplans, no later than 21 working days prior to mobilization.
- Designate a full-time **CLO**, fluent in English and Bislama, responsible for GRM and community engagement.
- Secure **land use agreements** and verify **laydown area approvals**, ensuring minimal environmental or social impact.
- Ensure **material sourcing** complies with Vanuatu laws and avoids beach sand extraction; imported material must meet biosecurity requirements.

9.3 Construction Phase

During construction, mitigation focuses on actively managing physical works and associated social risks. Measures include:

- Implement a **Method of Works Plan (MOWP)**, minimizing impacts on neighbouring households and enabling quick and safe works execution.
- Enforce the **Community Liaison Plan (CLP)** with clear, staged communication and consultation protocols.

- Implement the **Traffic Management Plan (TMP)** to ensure pedestrian and vehicle safety, minimize delays, and notify stakeholders of disruptions.
- Enforce the **Waste Management Plan (WMP)** with proper segregation, disposal, and prohibition of open dumping or burning.
- Enforce the **Environmental Management and Control Plan (EMCP)** to regulate site operations, vegetation clearance, erosion control, and stockpile management.
- Prohibit **pollution of water and soil**, maintain spill kits and implement a robust **Spill Response Plan**.
- Manage **hazardous substances** with secure storage, labelling, and trained personnel.
- Suppress **dust and noise**, limit working hours, and provide advance notice of disruptive activities.
- Deliver regular **site inductions** and **weekly toolbox talks** to maintain awareness and promote safe behaviour.
- Implement the **Contractors Safety Plan (CSP)** with first aid services, emergency transport, OHS drills, and daily monitoring.
- Enforce the **Labour Management Plan (LMP)** and Code of Conduct for all workers.
- Prevent **sexual exploitation, abuse, and harassment (SEAH)** through training, policies, and visible commitments.
- Operationalize the **Grievance Mechanism**, ensure clear signage and complaint resolution tracking.
- Prevent and promptly compensate for **damage to public and private assets**, supervised by the PMU.
- Enforce the **Quarry Management Plan (QMP)** if & when new material sources are required.
- Ensure **subcontractors and suppliers** adhere to all ESMP/CESMP requirements.
- Fence and clearly sign the **infiltration pond** area throughout construction to mitigate safety risks.

9.4 Operational Phase

Once construction is completed, the infrastructure enters the operational phase, where proper maintenance is critical to ensure long-term benefits:

- Assign formal **maintenance responsibilities to PVCC** for maintenance of streetlighting and trash racks and to **PWD for road and drainage maintenance (including infiltration pond)**.
- Implement routine **inspection and maintenance** programs for culverts, sediment traps, check dams, grills, and the infiltration pond.
- Conduct **vegetation management** and **desilting** ahead of rainy seasons to prevent blockages and flooding.
- Monitor and repair any **erosion or infrastructure damage** following storms or seasonal changes.
- Maintain **public safety features**, such as fencing and signage around the infiltration pond.

9.5 Ohlen Mataso Detailed Design & Tender Phase Mitigation Plan

Table 3. Detailed design and tender phase mitigation plan

POTENTIAL RISK OR IMPACT	ADDRESSED IN:	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	COSTS[1]	RESPONSIBLE	SUPERVISOR
DETAILED DESIGN & TENDER PHASE					
Climate Resilience	Design documents	The Designer will consider and ensure the climate resilience of all project designs in particular impact of storms and heavy rainfall. Road upgrade design includes concrete road surfacing, with no asphalt or bitumen construction.	Included in Design costs	DSS	PMU
Natural Habitats	Design Documents ESMP Tender Documents	ESMP prepared setting out performance standards, outcomes and management controls for all environmental and social risk management required for construction to set out Requirements included in tender documents and ESMP as part of the supplementary specifications. Design will include environmental protection measures, including land stability and take into account operation of the assets once constructed. Works drawings and plans will set out vegetation clearance limits in order to minimise vegetation clearance required for the works.	Included in Design costs	DSS	PMU
Road traffic and public safety	Design Documents ESMP Tender Documents	Project design will include solutions for pedestrian safety/management across all of the external drainage works. Project design will consider impacts on all sensitive receptors, which include school children, churches and roadside businesses. ESMP will set out requirements for traffic and public safety during construction.	Included in Design costs		

[1] Costs will be estimated during the detailed engineering design and will form an individual BoQ item.

		Tender documents require the Contractor to develop a Traffic Management Plan (TMP) which will set out how the Contractor will meet the traffic management requirements of the ESMP.			
Loss of Access to Assets and Land **Use of land for construction**	LDDR	A Land Due Diligence Report (LDDR) will be developed for voluntary relocation of one household. Works cannot commence until the LDDR has been approved and works on any affected land cannot commence until the LDDR has been fully implemented.	Potential costs for MoLNR	DSS PMU	PMU

Ohlen Mataso Pre-Construction Phase Mitigation Plan

Table 4. Pre-construction phase mitigation plan

POTENTIAL RISK OR IMPACT	ADDRESSED IN:	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	COSTS[2]	RESPONSIBLE	SUPERVISOR
PRE-CONSTRUCTION PHASE					
Site Induction	ESMP CESMP	Selected contractor visits site. Identification of hazards, sensitive receptors, which include, school children, churches and roadside businesses, as points of note for CESMP.	Part of construction and DSS contract costs	DSS/ PMU	PMU
Materials sources	ESMP CESMP EMCP	Contractor identifies licences/ permitted sources and obtains copies for CESMP. Contractor is strongly encouraged to use existing, legally permitted quarry sites. If new sites are developed a QMP will be required. DSS to approve source quarries prior to any purchase agreements being signed. No sand from beaches, even if licensed, will be used for the project. Imported aggregates must meet all Vanuatu Biosecurity requirements. Contractors **Environmental Management Control Plan (EMCP)** to be presented for approval 21 prior to commencement of construction.	Contract costs	Contractor	DSS
Equipment and Plant locations	ESMP CESMP EMCP	Contractor presents **Environment Management and Control Plan (EMCP)** for approval 21 days prior to commencement of construction. Contractor seeks approval for proposed locations for materials processing, crushers, concrete batching. Note that no asphalt required in construction. DSS to consider suitability of proposals and recommend approval or changes. Once approved, contractor to obtain all licences permits etc required.	Contract costs	Contractor DSS	DSS PMU

[2] Costs will be estimated during the detailed engineering design and will form an individual BoQ item.

E&S Risk Management Capacity	CESMP	Contractor confirms personnel responsible for environmental and social safeguards, including suitably qualified and experienced Environmental and Occupational Health & Safety (ESO/OHS) Officer and a Community Liaison Officer (CLO). DSS reviews and approves or rejects personnel.	Contract costs	Contractor DSS	DSS PMU
Management of Environment & Social Risks Impacts	CESMP	All of the Ohlen Mataso settlement, private and business property owners affected by the works must be advised of the scope, nature and timing of the construction works at least 7 days prior to works commencing. Contractor to plan and implement consultation with Business houses that will experience any interruptions to access will sign agreement at least 7 days prior to interruption. The contractor shall prepare a works programme and this shall be publicised to all potentially affected parties and all local businesses directly affected consulted with in advance and arrangements made for continued access to their properties. Contractors CLO to liaise directly with SPV LTA and VCC to ensure that transport operators and business houses are fully informed of traffic management plan. The commencement of any physical works prior to erecting signs at each end of the project site is prohibited. Signs must show: name of the project, name and contact details of the community liaison officer, Project Help Desk and how to make a complaint. Employees and Contractor must be made aware of the importance of environmental and social protection and must receive appropriate training and orientation from the DSS and PMU prior to commencing work on site. All employees must understand and sign Codes of Conduct before commencing work (refer Appendix 3 for sample CoC). All employees to receive Health and Safety Training and issued with PPE before starting work on site.	Part of contract costs	PMU DSS Contractor	DSS PMU

		All employees, including subcontractors and managers to receive STI/SEAH prevention training facilitated by an external specialist before starting work on site. Full safeguards record keeping and management controls, inspections, monitoring etc to be prepared, in place and operational for mobilisation. Fencing and warning signs to be erected at the site of the infiltration pond ahead of any works starting.			
General E&S Risk Management	CESMP	The CESMP shall include measures and sub plans that ensure mitigation measures will be in place from commencement of works to mitigate risks and impacts during construction as set out in the **Construction Phase** section of this table. These measures and sub plans shall include as a minimum: • Overview CESMP volume with allocation of all roles and responsibilities and list of sub-plans, procedures for updating and review. • **Environment Management Control Plan (EMCP),** including management of impacts on the natural environment including erosion control, Spill Response Procedure and all other environmental protection measures not covered under other subplans of the CESMP • **Traffic Management Plan (TMP)** including all Traffic Safety measures • **Waste and Hazardous Substances Management Plan (WMP)** • **Labour Management Plan (LMP),** including **Code of Conduct (CoC)** for all contractor and subcontractor personnel • **Method of Works Plan (MoWP)** • Land use and temporary occupation procedures • **Contactors Safety Plan for OHS (CSP),** which includes emergency response plan • **Community Liaison Plan (CLP)** • **STI & SEAH Prevention Plan (SSPP)** • Monitoring and reporting • Incidents register, including all corrective actions	Part of contract costs	Contractor	DSS

		The CESMP and constituent plans shall be developed a **minimum of 21 working days before the intended commencement of works** to be reviewed by the Client and approved for implementation prior to works commencing. In order to assist with preparation of the CESMP, the Community Liaison Plan (CLP) may be developed and submitted for approval in advance of the other CESMP documents for separate approval.			
Traffic Management	CESMP TMP	The TMP shall meet all requirements under the ESMP for traffic management, public safety and to minimise disruption to traffic.	Part of contract costs	Contractor	DSS
Community Impacts **Community Liaison** **Community Grievances** **Care of community and public assets**	CESMP CLP CLO GRM/Help Desk	Public consultation and disclosure through effective communication is essential for the success of the project and for reducing complaints and issues arising from the works. The Contractor will be required to produce a **Community Liaison Plan (CLP)** that sets out the contractor's requirements for community liaison under the SEP and ESMP, including how liaison with local communities and affected landowners and businesses will take place. The Contractor shall employ a full time, suitably qualified and experienced **Community Liaison Officer (CLO)** for the implementation of the CLP and the Contractors' **Grievance Redress Mechanism (GRM**) in coordination with the VARS **Help Desk**. The Contractor's CLO will be fluent in English and Bislama and will live in the local community. The CLP will also include steps to ensure communities and all affected parties are fully understanding of the project works and how these are to be undertaken **in advance** of physical works starting. To achieve this, the CLP will set out the key community and other contacts and communications mechanisms required for effective community and public engagement and will include the results of early and interim consultations and proposed meeting schedules with community representatives and affected parties. CLP provisions to include at local businesses, roadside market operators and roadside vendors are specifically included in the community consultation, communication and disclosure processes.	Part of contract costs	Contractor	DSS

		The CLP will also set out the proposed consultation mechanisms for the general public, road users and surrounding communities regarding the work programme and workforce. The CLP will include raising awareness of the Contractor's GRM and the project Help Desk, how to complain and how complaints will be managed. Any existing roadside furniture needing to be moved for physical works must be dismantled with due care to avoid unnecessary damage and reinstated at the location as directed by the DSS or otherwise replaced to equal or better condition. The CLO is to liaise with immediate community to explain the need for and how to remove and replace these assets. The CLP shall be developed a minimum of 21 working days before the intended commencement of works to be reviewed by the Client and approved for implementation. The CLP may be presented for review and approval ahead of other CESMP sub plans.			
Establishing Laydown and Stockpile Sites	CESMP	It is expected that the Contractor will only take delivery of construction materials required for immediate use during physical works. Laydown or storage areas are limited in the Ohlen Mataso area. The Contractor will obtain written permission from the leaseholder and pay rental for use of private land for laydown or stockpile sites (evidence required) and prior approval from the DSS is required. Establishment and management of proposed laydown and stockpile areas will be described in the CESMP and organised and agreed in advance of the start of physical works. The DSS will assess the suitability of any laydown sites proposed by the Contractor and will only approve sites that are compliant with the ESMP and will have minimal Environmental or Social (E&S) impacts.	Part of contract costs	Contractor	DSS

Ohlen Mataso Construction & Demobilisation Phase Mitigation Plan

Table 5. Construction & Demobilisation phase mitigation plan

POTENTIAL RISK OR IMPACT	ADDRESSED IN:	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	COSTS[3]	RESPONSIBLE	SUPERVISOR
CONSTRUCTION & DEMOBILISATION PHASE					
Environmental Impacts Vegetation Clearance, Soil Erosion and Sediment Control	EMCP	The Contractor will limit any areas to be cleared to the minimum agreed workable area and within limits of works shown on the design drawings and plans. Measures will be set out in the Contractors **Environmental Management and Control Plan (EMCP).** Use of heavy machinery to clear areas prone to erosion is prohibited. Earthworks during heavy rainfall or when the ground is waterlogged are prohibited. Where clearing is undertaken the Contractor must: a) clearly mark the areas to be cleared prior to commencing clearing and within work limits marked on design drawings; b) only clear within the marked area; c) ensure sediment traps are in place prior to works commencing; d) progressively clear the site as works progress; e) strip the topsoil immediately after clearing and if required for future use, stockpile onsite otherwise remove immediately; f) cover the stockpiles when not in use; g) chip or otherwise process any cleared trees etc. for use as mulch on site if required or taken to local composting facilities and firewood left for communities. h) install temporary erosion control measures and runoff/sediment control structures around cleared areas immediately after clearing; i) reinstate cleared areas immediately on completing each section of works;	Included in construction cost	Contractor	DSS

[3] Costs will be estimated during the detailed engineering design and will form an individual BoQ item.

		j) return cleared topsoil and mulch to approximately the same area it came from; and k) plant slopes and swale drains with grasses as soon as works are completed at each location. Stockpiles (excluding excavated materials for immediate reuse in project site) must have temporary runoff/sediment control structures installed and must be located: a) on clear, even, firm, well-drained ground and in locations where they can be clearly identified; b) away from drainage lines; and c) at least 30 m from the mean high water mark. d) A distance of at least 2m must be maintained between stockpiles. Agreed conservative working areas must be adhered to to minimize the footprint and impacts of construction.			
Waste management and disposal	CESMP WMP EMCP or other	The **Waste Management Plan (WMP)** shall describe waste streams generated by the works and detail the approved disposal methods for each along with permissions. Measures of the Contractors EMCP to be implemented. At all times, the Contractor is responsible for waste generated by the Works. Waste includes: a) General waste (i.e. office type waste, household waste, lightweight packaging materials). b) Recyclable waste (i.e. certain plastics, metals, rubber etc. that can be recycled). c) Organic biodegradable waste (i.e. waste that will decay / break down in a reasonable amount of time, such as green waste, food waste). d) Inorganic non-recyclable waste (i.e. waste that cannot decompose / break down and which cannot be recycled). e) Hazardous waste (i.e. waste oil etc.) f) Construction rubble including non-recyclable ferrous and nonferrous metals. As a <u>minimum</u> the WMP will make provisions for the following:	Included in construction cost	Contractor	DSS

		a) Describe the waste streams generated by the works along with estimated quantities. b) Develop a plan for safe storage and handling of waste stored on the project site as per the stipulations in this ESMP. c) Identify approved service providers for collection and disposal of waste and stipulate conditions of carriage. d) Detail the approved disposal methods along with appropriate permissions. e) Ensure areas for waste collection, recycling and off-site disposal are clearly marked/sign posted. Segregate waste to avoid cross contamination, such as with contaminated material (hazardous substance). f) Install waste collection facilities at all construction locations to allow for collection and packing of wastes. g) Organic biodegradable waste may be deposited in approved designated disposal areas in reasonable quantities. h) Recyclable waste may be supplied to a local receiver licensed to process such waste. i) Waste oil to be collected and removed to an approved facility (for disposal or cleaning) at completion of works. j) Any waste which cannot be safely and correctly disposed of in Vanuatu is to be disposed of OFFSHORE in permitted or licensed facilities. Contractor to obtain all necessary permissions for transport and safe disposal of hazardous waste from the project site in a legally designated hazardous waste management site within the country or in another country, and to ensure compliance with all relevant laws and conventions. Evidence will need to be supplied to the DSS of proper disposal of waste at the final location. The WMP or other plans in the CESMP shall require the following: • Strictly no dumping of rubbish. Include awareness training in general environmental training.			

		• Workers are provided with a sanitary system. Sanitary system must be of sufficient size for the number of workers and must take into account the disposal facilities at local landfill. • Clean fill materials which are not able to be reused within the project shall be transported to a location approved by the PMU or at Bouffa landfill. • Unless otherwise instructed by the DSS, all surplus materials not needed for the defects liability period shall be removed from the sites (and the country). • Chance finds procedures in place for cultural heritage and unexploded ordinance.			
Water and soil pollution	CESMP EMP Spill Response Procedure	The EMP will include provision for preventing water and soil pollution. This includes the following: a) The direct discharge of waste into water is prohibited. b) Storage of machinery within 30m of a drain or mean high water mark overnight or when not in use is prohibited. c) Natural runoff from undisturbed areas diverted around the site prior to site disturbance. d) Protect all drainage lines and excavations with runoff/sediment control structures. e) Runoff/sediment control structures maintained to control sediment loads. f) Excavations bunded to prevent ingress of water runoff and clean water diversion (e.g. sand bags, clay bund, or shallow trenches) to direct overland flow away from active work and storage areas. g) Control overland drainage to prevent channeling and sediment transport by diverting flows away from exposed areas. h) Sediment laden runoff from excavations or stockpiles must be directed to a settling area or collected for dust suppression. i) Machinery must be serviced and maintained to a standard that prevents the leakage and spillage of oil, fuel, lubricants and other contaminants. j) Spill Response Procedure to be developed by Contractor and workers trained. The procedure should include details on the use of spill kits and absorbent items to prevent spills entering the receiving sensitive environment (ground, surface water).	Included in construction cost	Contractor	DSS

		k) Spill response kits are to be available at all work locations l) Sandbags or diversion drains must be used to divert runoff from concrete cutting or setting areas. m) Concrete production facility to be equipped with settlement tanks/ponds for treatment of slurry and process water. n) Waste concrete should be allowed to harden before reuse as clean fill. o) All equipment used in concrete production must be cleaned in designated wash down areas. Wastewater from concrete cutting, washing equipment or production must be collected and treated (settling, pH neutralization). p) A separate washdown area is required for machinery or material with oil or fuel residue and treated through an oil water separator. q) Throughout construction and on completion of works (prior to site handover) ensure completed and connecting drains are cleared of sediment and detritus build up. r) The following activities are prohibited within 30m from any water course, mean high water mark or known groundwater source: • Storage of fuels, lubricants or other hazardous materials • Refueling of machinery • Overnight storage of machinery • Discharge of waste			
Hazardous substances and safety, pollution prevention	CESMP EMP Spill Response Procedure WMTP	The CESMP in its sub plans will ensure that: a) No hazardous substances to be stored at works sites. b) Provide hazard specific personnel protective equipment to workers directly involved in handling hazardous substances (e.g. chemical or heat resistant clothing, gloves). c) Complete list, including safety data sheets (SDS) for each hazardous substances stored or used shall always be accessible. All fuels, lubricants, chemicals and hazardous substances must be clearly labelled. Signage to be posted in storage areas identifying all chemicals present. d) Precautions should be in place to prevent wastewater and hazardous substances / materials entering the environment (e.g. fuel spillage, wastewater containing fire retardant during firefighting), however should an incident occur, the Contractor spill	Included in construction cost	Contractor	Hazardous substances and safety, pollution prevention

		response plan must be in place. The response plan should include details on the use of spill kits and absorbent items to prevent spills entering the receiving sensitive environment (ground, surface water). This spill response plan should be applicable to all VARS project works areas. A spill response plan should be in place for both the construction phase and operational phase. e) Spill kits and training of use to be provided to all workers during toolbox meetings. f) Spill kits to contain PPE for the spill clean-up (e.g. appropriate gloves [nitrile] and overalls), material to contain the spill and absorbent pads, and a heavy duty rubbish bag to collect absorbent pads or material.			
Air Quality	CESMP EMP CLP	Following measures required: a) Building materials and pavement materials must be covered during transport b) Works sites must be watered regularly so that dust is always suppressed. c) Cover or wet down stockpiles containing fine material (e.g. sand and topsoil) when not actively being used. d) All surfaces should be constructed to their final design solution as quickly as practicable. e) Dust masks and personnel protective equipment must be available for workers during dust generating activities (e.g. pavement milling). f) Manage speed of transportation trucks on unsealed roads. g) The use of hydrocarbons or other hazardous substances for dust suppression is prohibited h) Burning of all wastes is prohibited.	Included in construction cost	Contractor	DSS
Noise and vibration disturbances	CESMP EMP WMTP CLP	Minimise nuisance from noise, especially close to residential areas and sensitive receptors (school children, churches and roadside businesses), through establishment and communication to affected parties of likelihood of noise, working hours where noise is likely to be generated and to avoid generating noise outside of working hours. a) Working hours are 07.30 to 17.00 Monday to Friday.	Included in construction cost	Contractor	DSS

		b) Works on Saturdays or Sundays or such other times as the community adjacent to the works requires is prohibited. c) Noise impacts should not exceed 45 dBA at the closest residential or other sensitive social receptors. The nearest sensitive receptors will change as the work moves and will be determined the closest residences to the active works. d) Regularly check and maintain machinery, equipment and vehicle conditions to ensure appropriate use of mufflers, etc. e) Workers in the vicinity of sources of high noise shall wear necessary protection gear rated for the situation they are being used. Signage to outline complaints procedure (GRM) and contact details of recipient of complaints (e.g. Contractor's CLO phone number, physical address as well as the phone number and email for the VARS Help Desk).			
Community engagement and grievances	CESMP CLP GRM CoC	The Contractor must: • Implement a Community Liaison Plan (CLP) **)** and undertake consultation prior to works commencing, provide ongoing updates during construction including changes in schedule, and maintain visible signage for road users. • The Contractor's CLO will maintain a grievance response mechanism (GRM) in coordination with the VARS PMU Help Desk. The Contractors GRM must aim to resolve complaints within 7 days. Complaints unresolved on-site should be escalated to the PIU. Maintain a log of complaints and resolutions. • Ensure CoCs are signed by all employees and subcontractors. The Contractor will recruit a community liaison officer from the community who will assist in developing relationships with community. The VARS PMU will be the Contractor's key facilitator for all consultations. The Contractor shall use the Code of Conduct in the appendices of this ESMP to address the responsibilities of the individual, the management and the company towards the ESHS requirements of the Project, the prevention of GBV and the adherence to all OHS requirements.	Included in construction cost	Contractor PMU	DSS PMU

		The Codes of Conduct should be signed by each worker to indicate that they have: • received a copy of the code; • had the code explained to them; • acknowledged that adherence to this Code of Conduct is a condition of employment; and • understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities. The Contractor's CLO must ensure that public consultation and disclosure communication is completed at regular intervals as specified in the CLP and the VARS Stakeholder Engagement Plan to ensure that the public are fully aware of the VARS activities and the GRM process. Consultation should include all aspects of the project. The Contractor's CLO must also ensure that local businesses are included in the public consultation and disclosure communication process throughout the construction phase Signage should be used in public areas around the VARS project sites advising the complaints procedure, VARS Help Desk and contact details of the Contractor's CLO as responsible for responding to issues raised.			
Traffic Management Accident risks, Impacts on traffic flows and road user and pedestrian safety	CESMP TMP	Implement the TMP at all times, including outside of working hours. Traffic management and traffic safety is a high priority for the contract works and requires careful planning, staging and sequencing of works to allow for road access with minimum (max 5 minute) delays for road users. The TMP applies to all project based traffic, including that of suppliers and subcontractors and road users. It also applies to pedestrian traffic around, along and through the work sites. The Contractor shall ensure that: • All equipment, signage and personnel as set out in the approved TMP are available for use upon commencing physical works. • Overnight traffic management and if required, night lighting shall be installed to help ensure safety of road users and pedestrians.	Included in construction cost	Contractor	DSS

		• As with other CESMP sub plans, the TMP will be reviewed and once acceptable, approved for implementation • Necessary measures are arranged for pedestrian and passer-by safety and all means of transportation safety (e.g. establish protection zones, by-pass these areas during transportation of materials, etc.). • Relevant safety elements such as guardrails, road signs and delineators, pavement markings, barricades and beams, warning lights shall be installed. • Flag operators or traffic control operators around the specific work sites are deployed if required. • The approved Traffic Management Plan (TMP) is implemented to ensure smooth traffic flow and safety for workers, passing vehicles and pedestrian traffic. • Where needed, flag operators are employed on the road to prevent traffic accidents. The workers shall have relevant safety equipment and training. • TMP measures are effectively monitored on a weekly basis and update TMP where necessary. • The Contractor is to report on adherence to speed limits and use of haulage routes in monthly reports. TMP requirements must include: • Works planned to ensure the least obstruction and inconvenience to vehicular and pedestrian traffic. • All excavation sites must be securely fenced to prevent unauthorised access. • PMU, PVCC any community liaison committees (CLC) and the police must be informed, in writing 7 days in advance, of any physical works that may cause, or have the potential to cause interruptions or changes to normal traffic patterns. This includes any traffic delays and reduced traffic flows. • For each haul route and work location, the TMP must include: Layout plans; Vehicle traffic (including deliveries of materials);			

		Pedestrian traffic (particularly in locations that construction traffic will be present); • Identification of all sensitive receptors (management near and consultation with) schools, community meeting places, roadside markets, churches, etc.); • Management of increased heavy load traffic associated with transportation of construction materials and construction wastes including excavated materials. • A Community Liaison Officer be appointed prior to commencement of works. • Temporary traffic warning and direction signs must be erected and maintained in advance of any place on the road where works interfere with road traffic, and at all diversions, intermediate points where the work crosses or coincides with an existing road including main community pedestrian accesses. • Temporary traffic warning signs must be adequately illuminated during the hours of darkness. • Barricades must be erected and maintained in front of all obstructions or excavations. • Reduced speed limits through construction sites must be imposed and signposted. • When traffic is limited to one operational lane or these are workers or machinery operating in the road, traffic control measures must include traffic controllers with "SLOW" and "STOP" signs at both ends of sections of work in progress. • Pedestrian diversion routes must be clearly marked. Road signs must be clearly visible, unobscured by vegetation and have a surface clean from any excessive dust or dirt.			
Health and safety for community and workers	CESMP CSP ECP MoWP	The Contractor shall make sure that the infiltration pond is fenced at all times during construction and that signage advising of this potential hazard (large excavation, and open water) is erected around the pond. The Contractor shall fully implement an approved **Contractor Safety Plan (CSP)** and an **Emergency Contingency Plan (ECP)** setting out procedures	Included in construction cost	Contractor	DSS

		for emergencies and contingencies such as fire, natural disaster and land instability when excavating the infiltration pond. The Contractor will note that development of a workers' camp is explicitly prohibited under the VARS project. The Contractor shall always have a nominated Safety Officer with suitable qualifications and training available during construction to ensure the following: a) All workers have undergone suitable induction training on OHS with regular training over course of project. b) Prepare site specific safety plans specifying responsibilities and authorities. This includes a **separate method of works and safety plan for the excavation of the infiltration pond at Ohlen Mataso.** c) Health and safety documentation is prepared to include all areas of the project. d) Ensure all occupational health and safety requirements are in place on construction sites including sanitation and toilet facilities, potable water etc. e) OHS Plan will include infection prevention measures as well as procedures for responding to instances of infection within the workforce. f) First aid training to be provided as required to site workers with basic first aid services to be provided by Contractor e.g. stretcher, vehicle transport to hospital. First aid kits to be in communal areas or marked areas in the unlikely event of an incident occurring. g) Provide education on basic hygiene practices to minimize spread of diseases. h) Increase workers' HIV/AIDS and sexually transmitted disease (STD) awareness, including information on methods of transmission and protection measures. i) Prohibit usage of drugs and alcohol on construction sites and undertake regular alcohol testing. j) Install lights and cautionary signs in hazardous areas. k) Enhance safety and inspection procedures. l) Ensure the use of PPE which will be mandatory at all times.			

		The Contractor shall prepare the ECP and ensure all key personnel are aware of responsibilities and all workers aware of the ECP existence.			
Damage to assets and infrastructure	CESMP EMP CLP	Maintain a high standard of site supervision and vehicle and plant operation to reduce risks of damage to water, power and telecommunication lines. Prepare procedures for rapid notification to the responsible authority (PMU and service providers). As a result of VARS construction activities, any damage to assets or infrastructure must be reported to PMU and rectified at the expense of the Contractor. Aid with reinstatement, in the event of any disruption. Accidental damage to community assets including crop trees will be compensated by the Contractor under the national valuation guidelines.	Dependent on asset/ infrastructure and level of damage	Contractor	DSS PMU
Demobilisation **Biological environment: Biosecurity**	CESMP WMP EMCP or other	The Contractor is to ensure that its activities do not cause biodiversity loss or import or spread unwanted flora or fauna. The contractor will: Arrange for vehicles and machinery to be thoroughly cleaned of all contamination prior to shipping/importation (e.g. soil, rocks, plant material, seeds, etc.). Obtain import permits and quarantine certification prior to export from country of origin. Land all materials or equipment shipped into Efate at the Port in Port Vila to allow GoV Biosecurity and Quarantine Officers to inspect the shipments. Inspect all imported materials (e.g. fill, timber, machinery) for soil, seeds, or plant fragments before use on site. If invasive species are suspected, isolate materials and report immediately to the Department of Biosecurity. Thoroughly clean any machinery or equipment originating within Vanuatu but outside of Efate before its arrival into Efate. Thoroughly clean all machinery etc. on site prior to demobilisation at the completion of project works.	Included in construction cost	Contractor	DSS

Construction excavation Cultural significance & chance finds.	EMCP	In the unlikely event that artifacts of cultural significance or unexploded ordnance (UXO) are discovered during construction, the following Chance Find Procedure must be strictly followed: • All work must stop immediately at the location where the item has been unearthed. • The contractor must secure the area to prevent access, ensuring the find is not disturbed or exposed to risk. • The Design and Supervision Services (DSS) must be notified without delay. • The DSS will inform the Project Management Unit (PMU) and contact the Vanuatu Cultural Centre (for cultural items) or the Vanuatu Defence Force (for UXO) to determine the appropriate next steps. • No work may resume in the affected area until official clearance is provided by the relevant authority and written instruction is issued via the DSS.	Cost TBN	Contractor	DSS PMU, Vanuatu Cultural Centre (artifacts) or Vanuatu Military Force (UXO)

Ohlen Mataso Operational Phase Mitigation Plan

Table 6. Operational phase mitigation plan

POTENTIAL RISK OR IMPACT	ADDRESSED IN:	ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES	COSTS[4]	RESPONSIBLE	SUPERVISOR
OPERATION PHASE					
Road Safety	National or local initiative	Road maintenance to include maintenance of road surfaces to ensure the integrity of roadside drainage. Maintain and inspect traffic calming measures (e.g., speed bumps, chicanes) and road signage to ensure visibility, functionality, and effectiveness. Implement a scheduled inspection program to identify and promptly repair faded markings, damaged signs, or worn safety infrastructure. Support ongoing community road safety awareness programs, led by PWD and/or PVCC, targeting both drivers and pedestrians with a focus on: • School zones and high pedestrian-use areas • Intersection visibility and crossing safety • Behavior change through education and local signage Include road safety metrics and incident tracking in annual performance reviews by PVCC, in coordination with local law enforcement and transport departments.	Ongoing, additional to Project Costs	PWD	MIPU
Safety around water		Handover asset with fencing erected around the infiltration pond, as well as signage warning the general public and community of the need for caution around this area..	Ongoing, additional to Project Costs		

[4] Costs will be estimated during the detailed engineering design and will form an individual BoQ item.

Drainage system Maintenance	Asset management	Handover asset with an **asset management system** (e.g., inspection log) to PWD for all drainage structures, including culverts, check dams, and discharge points Increase frequency of inspection and maintenance during warmer, wetter months (November – April) Assign clear institutional roles: PVCC street lighting maintenance, Community for community lighting maintenance and PWD for road maintenance. Integrate community feedback into maintenance priorities through continued operation of the Help Desk and local liaison by PVCC staff. Include performance indicators and budget allocations for long-term maintenance in PVCC's annual operations plan. Implement environmental safeguards during maintenance (e.g., sediment collection, erosion control) to prevent re-mobilization of pollutants into nearby ecosystems.	Ongoing, additional to Project Costs	PWD PVCC	MIPU MoIA
Streetlight & Trash Rack Maintenance	Asset Management	Implement routine and post-storm inspections of all assets including streetlights and trash racks.	PVCC Annual Budget	PVCC	MOIA

10 Monitoring

Introduction

This section outlines the monitoring framework for the Ohlen Mataso Drainage works. Monitoring is a critical component of Environmental and Social Management Plan (ESMP) implementation and is designed to ensure that all mitigation measures are effective, appropriate, and responsive to changing conditions.

The requirements of the ESMP and the Contractor's Environmental and Social Management Plan (CESMP) are fully integrated into the project's technical specifications and contract documents. These requirements are binding and subject to routine monitoring by the Design and Supervision Services (DSS) team and audit by the Project Management Unit (PMU).

Monitoring of environmental permit conditions issued by the Department of Environmental Protection and Conservation (DEPC) will also be undertaken as part of the routine site supervision and regulatory compliance process. Monitoring results will be used to verify implementation, evaluate effectiveness of mitigation measures, and trigger corrective actions where needed.

Monitoring and compliance will occur at four levels:

1. Contractor self-monitoring through regular internal site checks and CESMP implementation reporting.
2. Supervisory monitoring by the DSS and PMU, including weekly checklists, inspection reports, and quarterly audits.
3. Regulatory oversight by DEPC and other competent authorities, as per permits and national law.
4. Periodic World Bank supervision missions to assess ESF compliance and performance across the project lifecycle.

All monitoring findings will be used to:

- Confirm compliance with ESMP and CESMP commitments;
- Track effectiveness of mitigation and enhancement measures;
- Guide any necessary updates or adjustments to safeguard instruments;
- Ensure transparency and accountability to stakeholders.

This monitoring framework is applicable across all phases of the project—design, pre-construction, construction, and operation—and is supported by the monitoring parameters, methods, frequencies, and responsible parties presented in the remainder of this section.

Scope and Parameters

The purpose of environmental and social monitoring is to confirm that mitigation measures are properly implemented, that they remain effective, and that project impacts are kept within acceptable thresholds. Monitoring results will also provide early warning of any emerging risks that require corrective action.

Monitoring will cover not only works on site but also all **ancillary activities and support sites** established or used by the Contractor, including but not limited to: material stockpiles, equipment laydown and servicing areas, temporary storage yards, site offices, and concrete batching zones. These

areas may present distinct environmental and social risks and will be subject to the same monitoring standards as the main work sites.

Monitoring will be undertaken across all phases of the project, and will focus on physical, biological, social, and occupational health and safety (OHS) parameters associated with the drainage works.

Key monitoring parameters include:

Environmental Parameters

- Dust levels – observed and measured to assess air quality impacts
- Noise levels – measured at site boundaries and ancillary work zones to confirm compliance with the 45 dBA limit at sensitive receptors
- Sedimentation and erosion – at construction sites, channels, outfalls and stockpile sites
- Water quality and runoff from work sites and areas like batching zones and fuel storage
- Waste handling practices – segregation, containment, signage, and approved disposal
- Soil and water contamination risks – e.g., visible spills, improper fuel handling, absence of spill kits on site and at maintenance and storage areas

Social and Community Parameters

- Community health and safety – blocked access, trip hazards, unmanaged pedestrian detours, unfenced infiltration pond
- Traffic management effectiveness – signage, traffic flow, lane safety
- Grievance redress – number of complaints logged, time to resolution, effectiveness of Help Desk
- Community liaison activities – frequency of meetings, community feedback, signage

Labour and Safeguards Compliance

- Occupational Health and Safety (OHS) – PPE usage, toolbox talks, safety briefings, incident logs
- SEAH training and awareness – attendance records, schedule compliance, use of trained facilitators
- Worker welfare conditions – sanitation facilities, drinking water, welfare provisions
- Safeguards implementation – evidence of CESMP roll-out, up-to-date plans, staff deployment

Post-Construction and Operation Parameters

- Functionality of drainage system – clear inlets/outlets, sediment removal, physical integrity
- Road safety features – signage, traffic calming, safe pedestrian access
- Community feedback – ongoing use of the GRM and CLP, perception of drainage effectiveness

Monitoring of these parameters will be carried out at varying frequencies depending on risk level and project phase, and will be tracked against clear performance criteria as presented in the following sub-sections.

Methodology and Frequency

Monitoring of the environmental and social performance of the project will be conducted using a combination of direct observation, instrument-based measurements, photographic evidence, community consultation, and record review. Monitoring will be carried out on a **daily, weekly, monthly, quarterly, or event-driven basis**, depending on the nature of the parameter and phase of the project.

The monitoring methodology for key environmental and social parameters is outlined below:

Table 77. Monitoring parameters and methods

Parameter	Method	Frequency	Responsible Party
Dust levels	Visual + monitoring device	Daily	Contractor (ESO)
Noise levels	Sound level meter	Weekly	DSS / Contractor
OHS performance	Observation, checklists	Daily	Contractor / DSS
Waste handling	Site inspection, checklist	Twice weekly	DSS / PMU
SEAH awareness & training	Attendance records, photos	Quarterly	Contractor / CLO
Grievance redress	Review of Help Desk logs and resolution records	Monthly	CLO / PMU
Erosion & sediment control	Site walkovers, photos, discharge observation	After all heavy rain events	DSS / Contractor
Drainage system condition (Operation Phase)	Inlet/outlet checks, sediment accumulation, discharge observation	Monthly + post-storm	PVCC
Revegetation and slope stabilisation	Site inspection, photo records	Monthly during recovery period	DSS
Machinery use in restricted zones	Daily supervision, GPS logs (if available)	Daily	Contractor / DSS
Public safety measures (e.g. signage, fencing)	Walkthrough, photographic log	Weekly + after complaints	DSS / CLO

Additional Notes on Methodology

- **Daily checklists** will be used by the Contractor's Environment and Safety Officer (ESO/OHSO) to document frontline conditions and ensure compliance with CESMP requirements.
- **Weekly joint inspections** will be conducted by the DSS and Contractor, with summary reports submitted to the PMU.
- **Event-driven inspections** (e.g. after storm events or complaints) will trigger immediate reporting and corrective action if non-compliance is observed.
- **Training and records review** (e.g. for SEAH, OHS, grievance) will be based on attendance logs, training reports, and feedback from workers and stakeholders.

All monitoring data—including photos, completed checklists, incident logs, and meeting minutes—must be systematically documented and filed in the site Safeguards Management System and made available to the PMU and World Bank on request.

Monitoring Plan

This Monitoring Plan outlines how compliance with the ESMP and CESMP will be verified during all phases of the Ohlen Mataso Drainage works. The plan ensures that the mitigation measures identified in Section 6 are implemented effectively, that impacts remain within acceptable thresholds, and that timely corrective actions are taken when non-compliance occurs.

Monitoring is the shared responsibility of the Contractor, DSS, PMU, and other relevant institutions (e.g., DEPC during construction and PVCC during operation). Each party must maintain full and transparent records to support compliance tracking and reporting.

Monitoring Objectives

- Verify compliance with ESMP and CESMP conditions
- Identify non-compliance and ensure timely correction
- Confirm the effectiveness of mitigation and management measures
- Ensure stakeholder concerns are documented and addressed
- Provide data for project reporting to the PMU and World Bank

Monitoring Approach

- Daily supervision and reporting by Contractor ESO and OHSO using checklists
- Weekly joint inspections by DSS and Contractor with written summaries
- Monthly summary reviews and verification by PMU
- Quarterly audits by DSS to assess CESMP implementation and performance
- Event-triggered inspections after significant weather events or incidents
- Operation phase monitoring undertaken by PVCC with oversight from PMU

Table 88. Monitoring plan for each identified impact including the frequency and responsible entity

Impact Area	Monitoring Focus	Frequency	Responsibility
Design Compliance	Climate-responsive drainage design; slope stabilization; foreshore and discharge protection. ARAP approval and implementation.	Once before final approval	PMU / DSS
Pre-Construction – CESMP Readiness	CESMP including all required sub-plans has been prepared by the nominated key personnel member and submitted to DSS and PMU **at least 21 calendar days** prior to commencement of works (mobilisation to site).CESMP must be **complete with all required licences, permits and approvals**.	Once before mobilisation	DSS / PMU

Material Sources	Licences/permits verified for all quarries or suppliers; GoV compliance confirmed; imported aggregates meet biosecurity rules	Once / periodic	Contractor / DSS
Equipment & Plant Locations	Staging areas, batching plants, stockpiles, worker facilities proposed and reviewed; final locations approved by DSS	Once + as needed	Contractor / DSS
Worker Induction & Training	Training delivered for environmental, OHS, SEAH and community engagement requirements; records maintained	Initial + quarterly	Contractor / DSS
Site Establishment	Fencing, signage, entry/exit control, drainage, protected zones, stockpile controls	Daily during mobilisation	Contractor / DSS
Construction Phase Impacts	Dust, noise, erosion, waste, sedimentation, traffic, pedestrian access, revegetation, foreshore protection	Daily to weekly	Contractor / DSS
Safeguards System Checks	Registers, training logs, signage, grievances, incidents, records of toolbox talks	Weekly	Contractor / DSS / PMU
Community Health & Safety	TMP compliance, signage and barriers, pedestrian routing, advance notice to stakeholders, grievances recorded	Weekly	Contractor / CLO / DSS
Worker Health & Safety	PPE use, sanitation facilities, OHS training, first aid, infection prevention, incident response	Daily + quarterly audits	Contractor / DSS
Grievance Redress Mechanism	Help Desk signage, complaint registration and resolution, trend tracking	Monthly	CLO / PMU
Sensitive Receptor Protection	Adherence to no-go zones, beach construction limits, avoidance of machinery use in restricted areas	Daily / Weekly	Contractor / DSS
Post-Construction Closeout	Site reinstatement, final revegetation, removal of surplus material, handover of completed assets	At demobilisation	DSS / PMU
Operational Phase (PVCC)	Functionality of drains, sediment traps, erosion at outlets, signage and public access infrastructure maintained	Monthly + after storm	PVCC / PMU

Monitoring Checklists are presented in Appendix 6.

11 Contractors ESMP (CESMP)

The Contractor is required to prepare a Contractor's Environmental and Social Management Plan (CESMP) for the Works, which shall be in line with this ESMP and the requirements of the bid documents. The Contractor shall not commence any Permanent Works under the Contract prior to receipt in writing from the DSS that the CESMP has been reviewed and approved by the Client and the World Bank. The approved CESMP shall become an integral part of the Contract Document and any works plans or methodologies.

The CESMP will be provided to the PMU (or delegate) for review as a complete set of documents insofar as possible. The PMU will be provided with sufficient time for review (minimum 21 days prior to mobilisation or deployment).

The CESMP will be the Contractors guiding document for the implementation of this ESMP during works. The CESMP will be reviewed and approved based on the requirements of this ESMP and will be their management plan for the practical implementation of these requirements. The CESMP will contain the contractor's methodology and planning for adhering to their safeguard requirements. Additionally, the CESMP will detail how the Contractor plans to resource their team with personnel and financial resources as per the Contract.

The Contractor will include sufficient provision in their Bill of Quantities (BoQ) to ensure that the CESMP can be developed, implemented and monitored by their Safeguard Specialist. The Contractor is obliged to ensure that their BoQ item is sufficient for this person to carry out their duties as required in this ESMP and the contract, noting that this will be a key role.

The CESMP and associated management plans will be developed, approved and disclosed prior to commencement of civil works. The bid documents will require that the CESMP be developed by the Contractor's Safeguard Specialist and after internal review and approval, it will be subject to approval from the DSS who will coordinate a review with the PMU Safeguard Specialists. Once the CESMP has been approved, it will be disclosed by the Contractor and the PMU using the same methods as required for the ESMP disclosure.

The CESMP content and required Sub-Plans is set out in Appendix 2 to this ESMP include:

- Labour Management Plan (LMP);
- Waste Management Plan (WMP);
- Traffic Management Plan (TMP);
- STI/SEAH Prevention Programme (SSPP);
- Community Liaison Plan (CLP);
- Contractors Safety Plan (CSP);
- Environment Management and Control Plan (EMCP); and a
- Method of Works Plan (MOWP).

12 ESMP Implementation

Integration of the ESMP into project management

This ESMP will be included in the bid document package.

The safeguard requirements of this ESMP will be referenced in appropriate parts of the technical specifications, Contractors contract and any TORs for supervision or issued under the VARS Project. The PMU Safeguards Specialist will be required to review all bid documents prior to approval.

Prior to commencement of works, the Contractor will be required to attend a half day pre-construction safeguards workshop with the PMU Safeguards Specialist to ensure that all parties understand their obligations under the terms of the Contract.

Integration of the ESMP into the Project

The Environmental and Social Management Plan (ESMP) is not a standalone document but is to be embedded within the overall planning, design, procurement, and implementation arrangements of the project works. The integration ensures that environmental and social safeguards are both **contractually and legally enforceable**, **operationally practical**, and **continuously monitored** throughout the project cycle.

Integration with Design and Procurement

- The ESMP and its associated requirements (including CESMP guidance and mitigation and monitoring tables) are embedded in the **tender documents and technical specifications** issued to prospective contractors.
- Bid evaluation includes environmental and social capacity criteria — such as experience managing SEAH risks, implementing occupational health and safety (OHS) systems, and community engagement.
- Successful bidders must submit a full CESMP, including all required subplans (see Appendix 2), no less than **21 days prior to mobilization**. This CESMP must be approved by the Design and Supervision Services (DSS) team and the World Bank before any site activities can begin.

Integration into Implementation and Supervision

- The ESMP is integrated into the construction management system, including:
  - Daily and weekly checklists for environmental and safety compliance
  - Incident response and reporting pathways
  - Site induction protocols and toolbox talk schedules
  - Regular reporting templates for safeguards data
- The DSS team supervises the implementation of ESMP measures on-site through scheduled engineering and safeguards inspections, using the monitoring tables and Appendix 6 monitoring checklist, and ongoing contractor and stakeholder engagement. Monitoring activities are conducted daily, weekly and monthly as well as event-based and quarterly as per the Appendix 6 checklists.
- The PMU provides strategic oversight, manages reporting to the World Bank, and coordinates third-party or government inspections where required.
- Environmental and social compliance is reviewed during monthly progress meetings and documented in contractor progress reports.

Integration with Community Engagement and Grievance Redress (Help Desk)

- The ESMP's requirements for Stakeholder Engagement and the Grievance Redress Mechanism (GRM) are operationalized through:
  - The appointment of a Community Liaison Officer (CLO)
  - The installation of visible Help Desk signage at the site entrance
  - Ongoing community updates (flyers, posters, in-person meetings)
- Grievances logged by community members are tracked in a standardized register, with required response and resolution timelines monitored by the CLO and PMU.

Post-Construction Integration

- At project close, the DSS and PMU will conduct a completion audit of ESMP implementation.
- Any outstanding corrective actions (e.g., landscaping, signage, site cleanup) must be completed before demobilization.
- Handover of infrastructure (roads, lights, drains, waste facilities) to the Shefa Provincial Council includes review of maintenance expectations and the final safeguards report.
- PMU will document lessons learned for future subdivisions under the VARS project.

ESMP Reporting

All aspects of the development and implementation of this ESMP should be properly documented and filed for future reference in the audit stage. This includes all screening forms, any safeguards or monitoring reports produced, records of public consultations, records of all complaints and grievances logged, environmental permits and development conditions.

The VARS DSS will support quarterly monitoring reports of all active investments under implementation under VARS to the PMU Project Manager who will then submit these reports to the World Bank.

ESMP Implementation Budget

Table 9. Ohlen Mataso ESMP Implementation Budget (Indicative)

Item	Description	Unit	Qty	Unit Cost (USD)	Total (USD)
1. Safeguards Personnel					
Environment & Occupational Health and Safety (ESO/OHS) Officer – Contractor	Full-time site-based ESO for duration of works	person-month	12	3,500	42,000
Community Liaison Officer (CLO) – Contractor	Full-time community liaison and GRM interface	person-month	6	2,800	16,800
SEAH External Specialist (Training)	Conduct pre-mobilization and quarterly SEAH sessions	session	4	2,000	8,000
Subtotal – Personnel					**66,800**
2. Training and Capacity Building					
Environmental & OHS Induction (all workers)	Materials, trainers, refreshers	project lump	1	4,000	4,000

SEAH / STI prevention Training	Contractor + subcontractors; includes materials and translation	project lump	1	6,000	6,000
Toolbox Talks and Awareness Posters	Printed materials, reinforcement tools	project lump	1	1,500	1,500
Subtotal – Training					**11,500**
3. Safeguards Implementation Tools					
Personal Protective Equipment (PPE) – Starter Set	Safety boots, helmets, vests, masks for all workers	set	50	75	3,750
Spill Kits	For refueling and hazardous materials areas	kit	5	250	1,250
Water Quality Monitoring Kit (basic)	For sediment checks at lagoon outfall	kit	1	1,000	1,000
Dust Meters / Noise Meter	For site monitoring	device	2	600	1,200
Site Signage & Fencing	Informational and safety signs, fencing of restricted zones	project lump	1	3,000	3,000
First Aid Kits	Distributed to multiple work zones	kit	5	100	500
Subtotal – Tools & Equipment					**10,700**
4. Community Liaison & Grievance Management					
Community Consultations	Hall hire, refreshments, translation, materials	event	4	1,000	4,000
Help Desk Setup and Operation	Phone, signage, documentation, support materials	project lump	1	2,500	2,500
Disclosure Materials (SEP, GRM posters, etc.)	Printed and visual materials for public notice	batch	3	500	1,500
Subtotal – Community					**8,000**
5. Monitoring and Reporting					
Monthly Safeguards Reporting (DSS oversight)	Lump sum allowance for time, transport, reporting effort	month	6	1,500	9,000
Quarterly Environmental and Social Audits	Formal performance audits by DSS	audit	2	3,000	6,000
Operation Phase Inspection (1st year post-handover)	Monitoring by PVCC of drainage and signage maintenance	inspection	4	500	2,000
Subtotal – Monitoring					**20,000**

Civil Works

Other parties who have implementation or monitoring responsibilities (DSS, Contractor) are required to be resourced with suitably experienced and qualified safeguards specialists.

It is the responsibility of the Contractor and Engineers to ensure that they allocate budget lines to have the necessary tools and equipment for the mitigation and monitoring measures as stipulated in the ESMP. The Contractor is to ensure that it has the budget provision to conduct the identified training for their workers and that sufficiently skilled resources are made available to deliver the relevant training.

The Contractor will undergo technical training in the form of a Kick Start Safeguards Workshop to ensure that the national and World Bank safeguard requirements and the PMU expectations for safeguard implementations are well understood prior to commencement of works.

13 Contingency Planning

The VARS Project Manager is the contact person for emergency situations that may arise during the implementation of the VARS works. The VARS Project Manager will be available 24 hours a day, seven days a week, and has delegated authority to stop or direct works. In the event of an environmental emergency, the procedures outlined below are recommended for VARS to consider for implementation.

As part of the EMP in their CESMP, the Contractors are required to provide contingency planning measures encompassing cyclone and storm events. The purpose of the plan is to ensure all staff are fully aware of their responsibilities in respect to human safety and environmental risk reduction. Procedures should clearly delineate the roles and responsibilities of staff; define the functions to be performed by them, the process to be followed in the performance of these functions including tools and equipment to be kept in readiness, and include an emergency medical plan. All of the Contractor's staff should undergo training/induction to the plan.

While it is preferable to undertake construction works outside of the wet season, it is probable that storm and heavy rain events will occur while works are underway. The Contractor is responsible for monitoring weather forecasts, inspecting all erosion and sediment control measures and undertaking any remedial works required prior to the forecast rain or storm event.

In general, the Contractors will:

- Inspect daily weather patterns to anticipate periods of risk and be prepared to undertake remedial works on erosion and sediment control measures to suit the climatic conditions.
- Monitor the effectiveness of such measures after storms and incorporate improvements where possible in accordance with best management practice.
- Ensure appropriate resources are available to deal with the installation of additional controls as and when needed.
- Inform DSS if there are any concerns associated with the measures in place.

Appendix 1: Environmental Permit Ohlen Mataso

Environmental Permit

Environmental Protection and Conservation Act
[CAP 283]
Section 17

DEPARTMENT OF ENVIRONMENTAL PROTECTION & CONSERVATION

Permit number	ENV/304/OTH/45/2025
Date issued:	14 April, 2025
Date by which works must substantially commence:	14 April, 2026
Holder:	Vanuatu Affordable and Resilient Settlements (VARs) Project Vanuatu Ministry of Lands and Natural Resources PMB 9090 Port Vila Vanuatu
Authorised activity:	For the purpose of the Environmental Protection and Conservation Act [CAP 283] only, this permit authorises you to; Carry-out the activities for stormwater improvements at Ohlen Mataso area, Port Vila. Work onsite will involve; • Upgrading roadside drainage. • Excavating a large and a small stormwater infiltration basin adjacent to the settlement.
Definitions:	In this permit, unless the contrary intention appears, the terms used are as defined in the Environmental Protection and Conservation Act [CAP 283] or Environmental Impact Assessment Regulations.

Conditions

General:

1. All traffic to and from site must be managed to ensure no hazards to other road users;
2. Dust must be controlled to avoid nuisance to any neighboring property, including gardens or habitations;
3. The discharge, dumping etc. of construction materials, oils, fuels, chemicals or wastes, including wash and waste water, to the environment is prohibited;
4. Subject to the Control of Nocturnal Noise Act [CAP 40], working onsite is prohibited during weekends and off hours between 6pm and 7am;

5. In the event the authorized activities cease, all wastes and hazardous materials must be removed from the site and disposed of off-site at a licensed or Council approved waste disposal facility;
6. As the developer you are required to obtained approval under all relevant laws of Vanuatu and land owner consent, before commencement of works.

Staff and subcontractors:

7. Staff and sub-contractors must be made aware of the importance of environmental protection and must receive appropriate training;
8. Staff and sub-contractors must be made aware of the conditions of this Environmental Permit and must comply with all relevant conditions;
9. Staff must be well versed with occupational health and safety requirements and be provided with training and awareness;
10. The site must be maintained in a tidy condition, free from litter and waste (whether arising from activities associated with the project or external sources);
11. Workers must wear appropriate Personal Protective Equipment (PPE) when doing works on site.

Use of machinery:

12. Machinery must be serviced and maintained in good condition to avoid leakage and spillage of oil, fuel and other contaminants;
13. Ensure proper arrangements for safe storage, handling and containment of any materials, oils, fuels and other chemicals;
14. Regular maintenance of vehicles and machines must be conducted to control the air quality during vehicle operations;
15. Heavy machinery must not be used during period of heavy rain or when the ground is waterlogged;
16. No oils, fuels, chemicals, materials or wastes and waste water, may be discharged into water or placed where they could enter water;
17. Heavy and noisy machines or stationary equipment must be set up as far as practical from sensitive receptors;
18. Vehicles and equipment operators must be well trained and properly licensed.

Site Specific:

19. The ESMP Requirements (Pg.1-22) on the supporting information attached with the Environmental Permit Application and submitted to the Department, must be complied with in full;
20. The developer and contractor (if any) must strictly comply with the structural details—concept, design plan, and the supporting documents submitted with the original EP application to the department;
21. The drainage design must comply with the Public Works Department standard codes;
22. The Potential impacts to be managed (Pg.11-12 in the supporting document) submitted to the department and the response via email on 06 March 2025 concerning the design to capture solid waste from entering the coastal water must be complied within full;
23. All solid waste must be treated and dispose offsite at the approved landfill;

24. Ensure section 3 & 4 (pg. 10-12) on the supporting information submitted with your application, must be strictly adhere within full;
25. Clearing of vegetation must be done according to the approved plan;
26. Areas of clearance must be minimized to selective cutting techniques where only few trees can be removed;
27. All vegetation which is not within the direct construction footprint will be retained, and any areas of cleared land will be revegetated as soon as possible;
28. Sediment traps must be placed in areas of cleared vegetation along any waterways to avoid downstream sediment transport and deposition;
29. Ensure that proper drainage is constructed for better run-off; that may not cause any impact to the surrounding residents;
30. The stormwater improvement must be designed, constructed and operated in such a way as to ensure that the likelihood of failure is minimized as far as reasonably practicable;
31. Ensure the environmental management conditions on the supporting information section 5 & 6 (Pg.13-14) must be complied within full;
32. Section 7 (monitoring) of the supporting documents (Pg.23-24) must be strictly adhered within full;
33. It is strictly prohibited to allow waste materials on site, to enter the coastal water during operation, waste materials must be properly managed to avoid fluvial detrimental setbacks;
34. Working onsite during bad weather such as rain is prohibited;
35. Developer is responsible to meet all costs for any future environmental damages as a result of this project;
36. Any unforeseen damage to the environment must be made known to the Department within 24 hours;
37. Any changes to the designs or proposed works in the future will require notification and approval by the Department and relevant authorities;

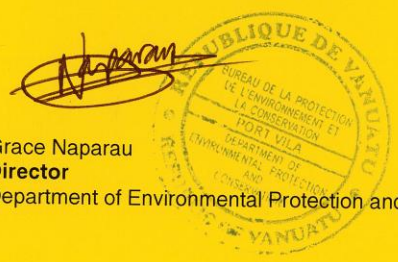
Construction:

38. Advanced safety warning signs must be installed to inform road users of the activity that will occur onsite;
39. Where practically necessary, traffic aides or personnel must be onsite to control and re-route traffic;
40. Warning and advisory signs must be put up during operation to inform the public of the work onsite;
41. Detours must be created for any access roads that will be affected by the construction operation;
42. Occupational Health and Safety must be well briefed to the workers onsite;
43. First aids and Emergency kids must be made available and accessible always onsite to prevent any threatening accidents;
44. Construction vehicles must be kept on defined tracks only;
45. Walking access must be maintained and not affected during construction;

46. Side street parking of construction vehicles for a longer period of time is not allowed at the site due to the current width of the road;
47. The project site must be barricaded to reduce hazard risk from the construction work to commuters.

Operation:

48. Heavy duty machines must be managed to minimize damage of the structure and stability of the surrounding environment;
49. Nearby residents must be made aware of the daily working schedule;
50. The developer is responsible for covering all costs for damages to any existing facilities as a result of works onsite;
51. Water must be used to moisten dirt or earth roads to control dust nuisance;
52. Minimize the footprint of the activity on land as much as possible;
53. Workers onsite must be well briefed that in the event of accidental finds of items of historical and archaeological significance, they must cease all works immediately and report to supervisor onsite;
54. Developer must respect other uses of the area; and
55. Officers of the Department of Environment and other relevant agencies are to be allowed on site at any time to monitor conditions of approval.



Grace Naparau
Director
Department of Environmental Protection and Conservation (DEPC)

Appendix 2: CESMP Content and Required Sub-plans

The Contractor is required to produce the following subplans as part of their CESMP.

Labour Management Plan (LMP)

This plan sets out how all local and any imported labour will be managed in line with local legislation. This plan sets out the programme of engagement and selection of all staff, workers and other personnel.

The LMP will include the following:

Objectives

- Ensure fair, safe, and equitable working conditions.
- Comply with Vanuatu labour law and ESS2 requirements.

Workforce Profile

- Number and type of workers (skilled/unskilled, national/local, women/youth).

Terms and Conditions of Employment

- Employment contracts
- Working hours, rest breaks, wages, benefits

Code of Conduct

- Signed by all workers
- Includes anti-harassment, SEAH, and non-discrimination provisions

Grievance Mechanism for Workers

- Confidential, accessible
- Timeframe for resolution

Training and Induction

- OHS, SEAH prevention, environmental practices

Occupational Health and Safety

- PPE, incident reporting, safety briefings

Waste Management Plan (WMP)

Setting out how wastes are to be managed and provisions for waste disposal of all types of wastes (liquid and solid) generated by physical and all ancillary works. including excavated materials and the use of and disposal of excavated spoil.

Objectives

- Ensure proper collection, segregation, storage, and disposal of all waste streams.

Waste Inventory

- Expected types: construction debris, domestic waste, hazardous (oils, paints)

Segregation and Storage

- On-site storage bins/labeled skip bins

Disposal Methods

- Legal disposal sites (approved by municipal authorities)
- No burning or dumping

Spill and Incident Response

- Cleanup kits and procedures

Monitoring and Documentation

- Waste logs, disposal receipts, incident reports

Traffic Management Plan (TMP)

Setting out how the Contractor will meet the traffic management requirements of the ESMP and manage traffic including signage and traffic management within and around the site including any traffic delays or detours, and haulage routes. The TMP will have specific provisions for pedestrian safety, including children walking past the work site and any haul routes for construction materials and wastes.

Objectives

- Ensure safe movement of vehicles, workers, and community members
- Ensure public and road users are able to access the city with maximum 5 min delay due to project works.

Traffic Routes and Site Access

- Map showing designated entry/exit points
- Identify school/pedestrian zones

Signage and Speed Controls

- Speed limits, traffic cones, flaggers

Community Safety Measures

- Peak hour restrictions near schools
- Informing public on road changes

Vehicle Inspection and Driver Conduct

- Daily vehicle checks, licensed drivers only

Emergency Access

- Keep clear routes for ambulances/fire services

STI/SEAH Prevention Programme (SSPP)

The programme will set out all activities and approach for training, awareness and education on these topics. Training will be delivered via a (DSS) approved training supplier. This programme will also contain information on other communicable diseases including STIs and others.

Training and awareness in the prevention of sexual exploitation, abuse and harassment will be delivered as part of the programme. Training will take place on a quarterly basis throughout the periods of construction and may be facilitated by an external trainer approved by the DSS. The cost of this will be included within the contractor's contract sum.

Objectives

- Prevent sexual exploitation, abuse, and harassment
- Promote STI and HIV/AIDS awareness

Code of Conduct and Enforcement

- Zero-tolerance policies
- Consequences for violations

Training and Communication

- Induction and quarterly refreshers
- Posters/signage in Bislama and English

Grievance and Referral

- Safe and confidential complaint system
- Referral partners (health and protection services)

Monitoring and Accountability

- Attendance logs for training
- Disciplinary records

Community Liaison Plan (CLP)

This plan sets out the contractor's responsibilities for undertaking community liaison in line with the requirements of the SEP and ESMP. This includes requirements for notice of works, feedback, proposed meeting schedules with stakeholders. The CLP will set out the rules, restrictions and requirements and stakeholder engagement on the part of the contractor. The CLP shall also specify how complaints are to be managed including the use of the project Grievance Redress Mechanism (GRM) and Help Desk. Agreement and arrangements made with stakeholders, for example of working hours will require to be in writing and attached to the CESMP.

Objectives

- Ensure two-way communication with local communities and affected parties
- Prevent and address concerns quickly

Community Liaison Officer (CLO)

- Designated staff member with language and local context skills

Engagement Activities

- Notification of works

Help Desk (GRM)

- Signage at entrance
- Logbook for grievances
- Help Desk Complaint Form

Records and Reporting

- Community & Stakeholder Meeting minutes
- Monthly engagement summaries

Contractors Safety Plan (CSP)

This is the Occupational Health and Safety plan and program for the project and will cover all project related activities and work sites. The CSP shall meet World Bank and international construction standard requirements for OHS. The CSP will include emergency procedures including evacuation and other safety mechanisms for natural disasters, disease outbreaks, civil unrest, serious accidents and others.

Objectives

- Prevent accidents and injuries
- Comply with ESS2 and WB EHS Guidelines

Site Hazards and Risk Assessment

- Identify top site risks (falls, trench collapse, equipment)

Roles and Responsibilities

- ESO/OHSO duties
- Worker safety representatives

PPE and Site Safety Rules

- Required PPE by task
- Safety signage

Emergency Preparedness

- First aid kits, fire extinguishers
- Evacuation routes and drills

Incident Notification and Investigation

- Use of WB ESIRT forms
- 24-hour reporting for serious incidents

Toolbox Talks and Training

- Weekly sessions
- Refresher training every 6 months

Environment Management and Control Plan (EMCP)

This plan or more likely set of sub plans set out what measures the contractor will take to manage any and all environmental impacts and the arrangements for environmental protection arising from the project activities (from mobilisation through to demobilisation and including the defects liability period) as identified in the ESMP.

Objectives

- Ensure environmental protection and avoiding sedimentation or inundation of surrounding properties.
- Protection of the lagoon water quality.

Emergency Response Procedures

• Actions for spills, erosion failures, UXO finds, and other environmental incidents

Environmental protection measures

- Expected types: of protection measures (pits, nets, screens, bunding)
- Limits to clearing land before works.
- Work area limits for machinery and equipment including on beach above high water mark

Incident Response

- Cleanup kits and procedures

Monitoring and Documentation

- Visual checks, incident reports

Method of Works Plan (MOWP)

Introduction

- Purpose of the MOWP.
- Site description (reference Ohlen Mataso settlement layout and adjoining roads).
- Overview of works covered by the MOWP.

Construction Staging and Sequencing

2.1 Mobilisation

- Site establishment.
- Identification of laydown areas.
- Notification to communities and road users.

2.2 Internal Works

- Sequential approach to pathway construction.
- Lighting installation timelines.
- Trash rack and soakaway construction.

2.3 External Works

- Drainage trenching, box channel and culvert installation.
- Kerb, crossover, and pavement works.
- Lagoon Road and Pango/Main/Kumul junction scheduling.

2.4 Demobilisation

- Site clearance and clean-up.
- Removal of temporary facilities.
- Restoration of affected areas.

3. Minimising Impacts to Neighbouring Households and Affected Parties

- Work hours (daylight only unless otherwise agreed).
- Advance notice of works (door-to-door and signage).
- Pedestrian and vehicle access maintained at all times.
- Use of noise and dust suppression measures.

4. Methodology for Boxing and Concreting

- Pre-marking and community verification before any boxing occurs.
- Use of pre-cut formwork and staged casting to minimise site time.
- Limiting open boxed areas to ≤24 hours before pour.
- Staggered pour scheduling to allow access retention.
- Designation of responsible foreperson for each pour.

5. Approved Concrete Additives

- Only additives approved by the Supervising Engineer permitted.
- Recommended additives may include:
  - **Set accelerators** (to reduce curing time and facilitate reopening of access).
  - **Workability agents** (to ensure finish in constrained spaces).
- No admixtures containing chlorides or substances harmful to human health or aquatic life.

6. Adaptive Implementation Protocol

- MOWP may be **adjusted during works** to further minimise impact, provided:
  - Revisions are approved by the Supervising Engineer and PMU.
  - Affected parties and households are consulted and **agree** to the revised methodology.
  - Changes are documented and disclosed through regular site meetings.

7. Documentation and Reporting

- Daily work logs.
- Community incident register.

- Weekly updates to Supervising Engineer and PMU.

Other Sub Plans

Other sub plans under the EMP will include site specific operation plans and procedures should ancillary works or plants be established by the contractor. These plants will require the contractor to apply for and secure all permits and licences under Vanuatu laws.

The plans will be developed and presented to the DSS in advance for approval and will ensure these ancillary activities minimise and manage all environmental and social risks. This approval includes the proposed location(s) for these activities.

The CESMP will include sections setting out arrangements for implementation and management of the CESMP including:

Declaration and document version control: signed declaration from responsible person; simple document version control that details all key changes to the CESMP and subplans over time. The CESMP will be reviewed, updated and resubmitted to the DSS for approval every six months during the contract period or in response to an anticipated change of circumstances before any changes are permitted at the work sites. These circumstances include substantial design changes with environmental or social implications, changes to specific approved plans, new activities not contemplated in the subproject ESMP, or additions to the project's area of influence. The CESMP must also be updated where mitigation measures are insufficient to mitigate the environmental and social impacts

Summary of environmental and social impacts: tabulated summary based on the ESMP but referring to specific actions and procedures in the CESMP and its subplans. Includes list and map of sensitive receptors with locations.

Roles and Responsibilities: defining the roles and responsibilities of personnel in charge of the environmental management of the project and their positions, including subcontractors.

Monitoring and Reporting: description of monitoring to be undertaken to meet EMP and contractual requirements, reporting requirements with a list of required reports, environmental or OHS incidents, non-compliance, corrective action and auditing; a description of the standard report content; the schedule or triggers for preparing a report; who the report is provided to; and document control procedures.

Compliance: set out the internal procedure that the contractor will follow when a non-compliance has been identified during daily monitoring. Procedure will include notification responsibilities, rectification timeframe and reporting obligations. Procedure will also cover the process the contractor will follow when non-compliances are reported by the DSS. Procedure will also identify how the contractor will action any disciplinary or training requirements following the non-compliance

Permits agreements and plans: copies of all plans, licenses and agreements for materials supply, land use, restoration quarry management plans etc. as may be required by the Contractor to meet legal obligations and the requirements of the ESMP. Agreements and arrangements for the use of any and all local resources will require to be in writing and attached to the CESMP.

Corporate commitment: to following good international and industry practice in environmental, social and health and safety management as well as implementing all contractual safeguards requirements

to ensure all environmental and social impacts arising from the activities of the Contractor, the contractor's employees, subcontractors, suppliers or associates are to be avoided, minimized or mitigated at all times. The contractor's employees, subcontractors, suppliers or associates will confirm their agreement to respect and sign a Code of Conduct that will include an enforceable arrangement.

VII. **Safeguards Training**: relevant environmental, social and health and safety management training to ensure responsibilities for implementing the CESMP are understood. Covers all work sites for all project activities and operations, including contractors, subcontractors, suppliers associates and visitors. The CESMP will include a list of the training needs, a plan and schedule for training. The CESMP will also identify the sources conducting the training (internal/external).

VIII. **CESMP Review and Amendments**: The CESMP will be reviewed, updated and resubmitted to the DSS/PMU for approval every six months during the contract period or in response to an anticipated change of circumstances before any changes are permitted at the work sites. These circumstances include substantial design changes with environmental or social implications, changes to specific approved plans, new activities not contemplated in the subproject EMP, or additions to the subproject's area of influence. No changes will be made to the subproject until it has either been confirmed by the DSS that an update to the CESMP is not required, or the update has been approved by the DSS/PMU. The CESMP must also be updated where mitigation measures are insufficient to mitigate the environmental and social impacts.

Appendix 3: VARS Code of Conduct

FOR ALL SUBPROJECT CONTRACTOR PERSONNEL TO SIGN

I, _____, agree that while working on the project:

- Follow all the laws of Vanuatu.
- Follow all Contractor occupational health and safety requirements.
- Do not use alcohol or kava or drugs during work time.
- Treat all women and girls, children and men with respect.
- Do not swear at or in front of any community members.
- Do not behave badly towards women and girls in the community. For example, no looking somebody up and down; no kissing, no howling or smacking sounds; no following somebody around; no whistling and catcalls; no giving personal gifts.
- Do not stay in the community after working hours.
- Do not touch or have contact with children (any community members under the age of 18).
- Do not have sex and not try to have sex with members of the communities.
- Consider reporting through the GM or to my manager if I believe a fellow worker is not following this Code of Conduct.

With regard to children under the age of 18:

- Tell my manager if any children are in danger.
- Not pass time alone with any children while in the communities.
- Do not invite any children to leave the communities.
- Do not take any pictures or videos of children in the communities.
- Do not hit or swear or yell at any children in the communities.

I understand that if I breach this Code of Conduct, my employer will take disciplinary action which could include:

1. Informal warning.
2. Formal warning.
3. Additional Training.
4. Loss of up to one week's salary.
5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
6. Termination of employment.
7. Report to the Police if warranted.

Signature: _____

Printed Name: _____

Title: _____

Translated version in Bislama:

RUL LONG WOK BLONG OL WOKMAN BLONG KAMPANI

Mi, _____, agri se taem we mi stap wok long projek bae mi:

- Rispektem evri loa blong Vanuatu
- Rispektem evri okupasonol helt mo sefti rikwaemen blong Kampani
- No tekem alkol o kava o drags long taem blong wok
- Tritim evri woman mo gel, pikinini mo man wetem rispek
- No mas swea long o long foret blong eni memba blong komuniti.
- No mas mekem nogud long ol woman mo gel long komuniti. Olsem eksampol, no lukluk wan man daon kasem antap; no kisim man, no singaot strong o slapem; no folfolem man; no wisil mo singaot; no givim ol pesonol gif.
- No mas stap long komuniti afta taem blong wok.
- No mas yusum ol toelet o go insaed long ol praevet hom long komuniti.
- No mas tajem o gat kontak wetem ol pikinini (eni komuniti memba we i no kasem 18 yia yet).
- No mas gat seks mo no traem blong gat seks wetem ol memba blong komuniti.
- Ripotem long GM (Help Desk) o long maneja blong mi sipos mi ting se wan koleg blong wok i no rispektem ol rul long wok.

Long saed blong olgeta pikinini we oli no kasem 18 yia yet:

- Talemaot long maneja blong mi sipos eni pikinini i stap long denja.
- No mas spendem taem yu wan wetem eni pikinini taem yu stap long komuniti.
- No mas askem eni pikinini blong aot long komuniti.
- No mas tekem eni foto o video blong ol pikinini blong komuniti.
- No mas kilim o swea o singaot strong long eni pikinini long komuniti

Mi harem save se sipos mi no rispektem ol Rul ia, bambae bos blong mi i tekem ol disiplinari aksen olsem:

8. Infomol woning
9. Fomol woning
10. Adisonol Trening
11. No kasem wan wik salari
12. Saspensen long wok (witaot salari), long wan minimam period blong 1 manis kasem wan maksimam blong 6 manis.
13. Finis long wok
14. Ripot long polis sipos i nid

Signeja: _____

Nem: _____

Taetol: _____

Appendix 4: Grievance Redress Mechanism (Help Desk) Process and Log Format

The VARS Project Grievance Mechanism (GM) will be referred to in public as the "Help Desk" and will seek to:

a. respond to requests for information or requests for design change;

b. resolve complaints; and

c. address and resolve grievances in a timely, effective and efficient manner that satisfies all parties involved.

Requests for design change and requests for information are not classified as complaints, though they require follow-up and assurance of satisfaction from the affected party. The project recognizes that requests for design change can add value to the project, ensuring that the needs of stakeholders and affected parties are met. Changes to design can be made through consultation and negotiation and do not necessarily carry the negative connotation of a complaint. A 'complaint' is categorized as an issue that raises negative concern, worry, or otherwise troubles the affected party or parties. A request for information, request for design change or a complaint which is not responded to in a timely or satisfactory manner may escalate into a 'grievance'. Some issues may present immediately as a grievance. For example, the help desk assessment process may immediately assess issues relating to reports of sexual exploitation, assault or harassment (SEAH) as a grievance and may immediately enlist support from the Vanuatu Women's Centre (VWC). Similarly, issues involving children will immediately be referred to the Family Protection Unit of the Vanuatu Police Force.

The Help Desk will provide a transparent and credible process for fair, effective and lasting outcomes. The Help Desk process will seek to build trust and cooperation as an integral component of broader community consultation that facilitates corrective actions. The Help Desk will:

- Provide settlement residents and other interested or affected parties with avenues a) seeking information or requesting a design change, b) raising a complaint or c) resolving any grievance that may arise during the course of the implementation of the Project subcomponents;
- Ensure that appropriate and mutually acceptable redress actions are identified and implemented to the satisfaction of those requesting information or action; and
- Ensure that the Help Desk is linked with existing referral networks for issues related SEAH or issues involving children.

Help Desk Personnel: The PMU operates a Help Desk, with dedicated phone lines for both networks to receive a) requests for information or design change, b) complaints and c) potential grievances. The social team of the PMU consists of the Social Environment Specialist (SES), the Social Development Specialist (SDS) and a Social Officer position. The Social Officer is responsible for data entry into the Help Desk Register and always holds and responds to the Help Desk phone. The social team is responsible for promoting Help Desk processes (the Grievance Mechanism) through all stakeholder engagement programs. The social team will manage requests for information or design change, complaints and grievances under the direction of the Project Manager.

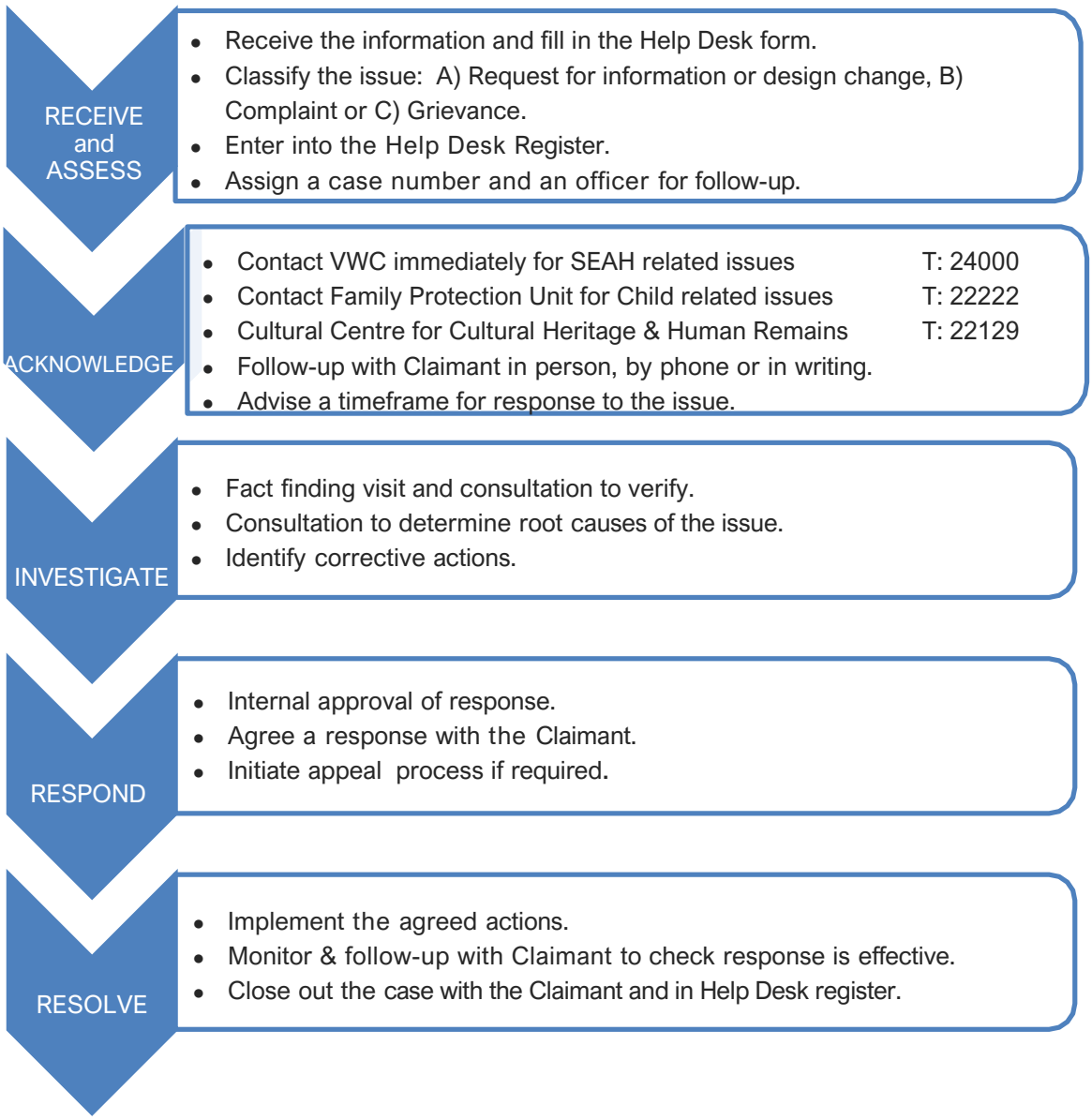
Help Desk Process: Help Desk processes will follow five key steps to resolve any requests for information, design change, complaints or grievance that arise. If the concerned party is not satisfied

with the outcome of the process handled by the Social Team, s/he/they (referred to as the Claimant) can escalate the issue to the Project Manager or the Director of MoL, who will then assign a senior officer to investigate.

The concerned party can elect to raise a request for information or design change, complaint or grievance either through the Help Desk Form (either directly or through a third party such as a community leader, Chief or Church leader), via phone call to the Help Desk phone or via email. The Help Desk form is available with the Community Liaison Committees, Chiefs of target settlements and online on the MoLNR website.

Complaints or grievances relating to SEAH will also be recorded (confidentially) in the Help Desk register. However, SEAH complaints may be complex, sensitive and potentially volatile. Therefore, the VARS Social Team will work under the guidance of the Vanuatu Women's Centre to ensure that concerned parties are immediately offered confidential and professional support. Issues relating to any form of child abuse will be referred to the Family Protection Unit at the Vanuatu Police Force. Issues relating to cultural heritage will be referred to the Vanuatu Cultural Centre.

Help Desk Process



Help Desk Implementation Timeframes

Help Desk implementation process includes five key stages: (i) Receive and Assess; (ii) Acknowledge; (iii) Investigate; (iii) Respond; and (iv) Resolve/Close Out.

The intention is to respond to requests and resolve complaints as quickly as possible so that they do not become a grievance, while recognizing that some issues may be assessed as a grievance on presentation.

(i) Receive and Assess - 1 day

The first point of contact for requests and complaints will be the PMU Social Officer. However, all members of the PMU will be trained to receive and record requests and complaints or grievances. A Help Desk Form will be completed immediately and shared with the Project Manager the same day, via email if the Project Manager (PM) is not available. In most cases the PM will determine which officer will conduct the investigation. The Social Officer will be tasked with entering the Help Desk Form details into the Help Desk Register. The register will be an Excel database, which will be used to track requests/complaints/grievances through to resolution or close-out.

(ii) Acknowledgement – within 2 days of receipt

Requests/Complaints/Grievances will be acknowledged within two days by a response to the Claimant. If the Vanuatu Women's Centre or Family Protection Unit or Cultural Centre is involved, they will be requested to attend a follow-up meeting to be held within 1 week. The meeting will advise the PMU how best to proceed with the issue.

(iii) Investigation – within 1 week of receipt

Investigations may include site visits to determine the scale and impact of the request/complaint/grievance and what options there may be for appropriate responses or resolutions. Investigations should be conducted within 1 week of receipt of the request/complaint/grievance.

(iv) Respond -within 1 week of investigation

The Social Officer, or officer assigned to investigate, will communicate the findings of the investigation to the Claimant. The response should be delivered within 1 week of the investigation and include a proposed resolution and seek the approval of the Claimant. If the Claimant is satisfied with the proposed resolution, then the request/complaint/grievance is ready to be resolved.

(v) Resolve/Close Out – within 1 month of investigation or as soon as practicable

If the Claimant is satisfied with the proposed resolution and agrees that the issue is resolved, the Claimant will be asked to sign the Help Desk Form and the matter will be considered resolved. The resolution will be recorded in the Help Desk register to reflect that the matter is resolved.

If the Claimant is still dissatisfied with the outcome, they may be referred to the legal process or use the World Bank Grievance Redress System, which is available at any stage to the Claimant. However, courts should be the last avenue for addressing grievances.

If a grievance is dismissed as groundless; the Claimant will be informed of their rights in taking it to the next level. A copy of the decision is to be given to the Claimant in writing and the outcome recorded in the Help Desk Register.

A copy of the decision will be shared with the Director of MoLNR.

A request/complaint/grievance is closed out when no further action can be or needs to be taken. All requests/complaints/grievance should be closed out within 1 month or as soon as possible.

The status will be recorded in the Help Desk Register as follows:

- Resolved – a solution has been agreed and implemented and signed documentation is evidence of this.
- Unresolved – it has not been possible to reach an agreed solution and the Claimant has the option to elevate to the World Bank Grievance Redress System or the Courts.
- Abandoned – cases where the attempts to contact the Claimant have not been successful for three months following receipt of Help Desk Form.

All requests/complaints/grievance will be reviewed for opportunities to help identify and reduce future, similar occurrences across VARS subprojects.

VARS PROJECT HELP DESK FORM

Name of Contact	Phone number(s) of Contact	Home address/location of Contact	Date
Name of Claimant	Phone No of Claimant	Home address of Claimant	

QUESTION	RESPONSE	
What is the problem?		
What is the cause?		
When did it happen?		
Has there been impact to:	◊ Housing ◊ Land ◊ Business property ◊ Personal property ◊ Community property	◊ Cultural Heritage ◊ Water Source/Supply ◊ Electrical issue ◊ Livestock/crops/trees ◊ Other: _____
If land related, what type of land?	◊ Residential ◊ Commercial/Industrial ◊ Agricultural ◊ Public Land	
Is this issue related to:	◊ Dust ◊ Noise ◊ Road traffic ◊ Safety issue ◊ Environmental concern ◊ Other:	◊ Sexual Harassment ◊ Sexual Exploitation Assault ◊ Gender-based Violence ◊ Non-sexual violence ◊ Verbal abuse
Do you believe the VARS Project is responsible? Why/Why not?		
Who is involved?		
What is your proposed solution?		

P: (678) 555 1551 **P:** (678) 774 9233 **E:** so@vars.vu

RESOLUTION: Once the concerned party is satisfied with the resultion, ask them to sign to show the matter is closed:

Sign: Date:

Help Desk Form Bislama:

VARS PROJEK HELP DESK FOM

Nem blo kontak	Telefon namba	Hom adres/Ples	Deit
Nem blo Klemen (sapos oli no wantem talem nem I orait)	Telefon blo Klemen	Hom address/Ples blo Klemen	

KWESTEN	ANSA	
Wanem nao hemi problem?		
Wanem nao i mekem se i gat problem?		
Wetaem nao i hapen?		
i gat eni impak long:	◊ Haos ◊ Graon ◊ Bisnis propeti ◊ Pesonol propeti ◊ Komuniti propeti ◊ Man / Woman/ Pikinini	◊ Kaljurol Heritej ◊ Wota Sos/Saplae ◊ Elektrik ◊ Laefstok/kakae/tri ◊ Narafala:
Sapos hemi isiu blong graon, wanem kain groan?	◊ Ples we ol man istap liv (residential) ◊ Bisnes propeti (commercial/industrial) ◊ Karen (agricultural) ◊ Pablik	◊ Narafala:
i gat eni isiu long saed blong:	◊ Dast ◊ Noes ◊ Rod trafik ◊ Sefti isiu ◊ Envaeronmentol konsen ◊ Narafala:	◊ Seksuol Harasmen ◊ Seksuol Eksploitesen ◊ Seksuol Asolt ◊ Non-seksuol vaelens ◊ Rabis toktok ◊ Asoltem Pikinini
Yu ting se VARS projek hemi risponsibol?		
Hu ia ipat long problem ia?		
Wanem nao solusen we yu save givim?		

SOLUSEN: Taem we man i glad wetem solusen, askem hem blong saen blong markem se problem hemi finis:

P: (678) 555 1551 **P:** (678) 774 9233 **E: so@vars.vu**

Appendix 5: ESIRT Notification Protocol

List of reportable incidents extracted from Appendix 1 of the World Bank's ESIRT for evaluation of VARS project incidents.

Fatality: Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).

Lost Time Injury: Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

Acts of Violence/Protest: Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

Disease Outbreaks: The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology. Will be followed by the project and shall remain the responsibility of the DSS to ensure all serious incidents are reported and fully investigated.

Displacement Without Due Process: The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.

Child Labor: An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.

Forced Labor: An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.

Unexpected impacts on heritage resources: An impact that occurs to a legally protected and/or internationally recognised area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas that was not foreseen or predicted as part of the project design or the environmental or social assessment.

Unexpected impacts on biodiversity resources: An impact that occurs to a legally protected and/or internationally recognised area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.

Environmental pollution incident: Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24hrs or have resulted in harm to the environment.

Dam failure: A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.

Violence on the basis of SOGI: The threat or use of physical force that injures or abuses a person, or damages or destroys property, and that is motivated in whole or in part by the victim's real or perceived sexual orientation, gender identity, gender expression, or sex characteristics.

Discrimination on the basis of SOGI: Discrimination means creating a distinction, exclusion, or restriction which has the purpose or effect of impairing or excluding a person based on their real or perceived sexual orientation, gender identity, gender expression, or sex characteristics from being on an equal basis with others.

Sexual Exploitation: Any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed operations/projects, sexual exploitation occurs when access to or benefit from a Bank financed Goods, Works, Non-consulting Services or Consulting Services is used to extract sexual gain.

Sexual Abuse: Actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions. In Bank financed operations/projects, sexual abuse occurs when a project related worker (contractor staff, subcontractor staff, supervising engineer) uses force or unequal power vis a vis a community member or colleague to perpetrate or threat to perpetrate an unwanted sexual act.

Sexual Harassment: Any unwelcome sexual advance, request for sexual favor, verbal or physical conduct or gesture of a sexual nature, or any other behavior of a sexual nature that might reasonably be expected or be perceived to cause offence or humiliation to another, when such conduct interferes with work, is made a condition of employment, or creates an intimidating, hostile or offensive work environment. In Bank financed operations/projects, sexual harassment occurs within the context of a subcontractor or contractor and relates to employees of the company experiencing unwelcome sexual advances or requests for sexual favor or acts of a sexual nature that are offensive and humiliating among the same company's employees.

Other: Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

Appendix 6: Sample CESMP Monitoring Checklist

Pre-Construction – CESMP Readiness Checklist

Frequency: Once before mobilisation

Responsible Party: DSS / PMU
Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
CESMP submitted at least 21 calendar days before mobilization		
CESMP sub-plans:		
EMCP		
TMP		
LMP		
CLP		
CSP		
WMP		
SSPP (SEAH)		
QMP		
CESMP includes all required permits and licences		
CESMP reviewed and approved by DSS and PMU prior to site works		
ESO/OHSO nominated and approved		
CLO nominated and approved		

Material Sources Checklist

Frequency: Once / Periodic

Responsible Party: Contractor / DSS
Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
All quarries and borrow sites are licensed and permitted		
Import permits and biosecurity clearances obtained (if applicable)		
Material source locations approved by DSS		
Aggregate quality and origin documented		
No sand sourced from beaches		

Equipment and Plant Locations Checklist

Frequency: Once + as needed

Responsible Party: Contractor / DSS
Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
Locations for batching plants, laydown areas, and offices proposed by Contractor		
DSS review completed and written approval provided		
Sites avoid sensitive receptors and waterways		
Storage and stockpile areas within approved limits		
Landowner permission and agreements documented where private land is used		

Site Establishment Checklist

Frequency: Daily during mobilisation

Responsible Party: Contractor / DSS
Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
Site fencing secured entry/exit points established		
Project signage erected at site access points		
Drainage and erosion control measures installed prior to works		
Storage and stockpile areas set up as per CESMP and DSS approval		
Protected zones and no-go areas clearly marked and signposted		
CLO appointed prior to mobilisation of machinery		
Community consultations held at least 10 days prior to civil works		

Construction Phase Impacts Checklist

Frequency: Daily to weekly

Responsible Party: Contractor / DSS
Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
Dust suppression measures in place and effective		

Noise levels maintained below 45 dBA at sensitive receptors		
Waste properly segregated, stored, and signage present		
Traffic and pedestrian access maintained and TMP enforced		
Vegetation clearance limited to approved zones		
Sediment control and stormwater protection measures active		
No machinery operating outside defined work zones		

Community Health and Safety Checklist

Frequency: Weekly

Responsible Party: Contractor / CLO / DSS

Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
TMP signage and pedestrian routing in place and functional		
Public access to businesses and residences maintained		
Complaints signage (Help Desk, CLO contact) clearly posted		
Community engagement sessions documented as per CLP		
No work taking place at night or on Sundays without approval		
Dust, noise, and safety controls effective in community areas		

Worker Health and Safety Checklist

Frequency: Daily + quarterly audits

Responsible Party: Contractor / DSS

Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
All workers wearing task-appropriate PPE		
OHS training completed and records maintained		
Daily toolbox talks or safety briefings held		
First aid kits available and stocked on-site		
Trained first aiders present		
Sanitary facilities maintained as per CESMP		

Grievance Redress Mechanism (GRM) Checklist

Frequency: Monthly

Responsible Party: CLO / PMU

Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
Help Desk signage posted at all active worksites		
Complaints are logged and tracked to resolution		
Community feedback integrated into safeguards response		
Complaint resolution time tracked and within acceptable range		
CLP implementation records kept and reviewed		
Complaints resolved without retaliation or escalation		

Sensitive Receptor Protection Checklist

Frequency: Daily / Weekly

Responsible Party: Contractor / DSS

Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
No-go zones clearly marked and respected		
Beach access and foreshore not obstructed or degraded		
No construction outside defined limits of disturbance		
Machinery not operating below high water mark		
Sensitive receptors (homes, schools) shielded from dust/noise		

Operational Phase Monitoring Checklist

Frequency: Monthly + after storm events

Responsible Party: PVCC / PMU

Checklist Items:

Checklist Item	Compliant (Y/N)	Comments / Corrective Actions
Drainage inlets and outlets free of debris		

Sediment traps functional and desilted as needed		
Riprap and erosion control structures stable and intact		
Outfall to lagoon not causing scouring or blockages		
Community concerns regarding drainage logged via Help Desk		
Traffic calming and road signage remain in good condition		

Appendix 7. Summary of Ohlen Mataso Community Consultations to date

Date	Consultation activity	Details
November 2023	Community meetings to prepare for waste disposal subproject, with Chiefs and youth representatives at Ohlen Mataso	PMU shared an overview of the project and the objective of the rubbish removal activity and socialized the Help Desk. Fliers distributed to communities to inform them of the rubbish removal activity and the Help Desk.
January 2024	Two meetings with MoLNR representatives	Project update
	Meeting with National Youth Authority	To discuss youth engagement on VARS
22 May 2024	Meeting with MoLNR	Project update
6 June 2024	Meeting with Ohlen Mataso leaders	Project update
18 June 2024	Meeting with Ohlen Mataso leaders, CLC women and youth representatives	Project update
18 June 2024	Meeting with all CLCs (Tokyo, Ohlen Mataso, Seaside)	Project update
27 July 2024	Consultation with key leaders from the 4 existing settlements	Clarify communication channels, role of Beca, preparation for full CLC meeting later in the week.
01 Aug 2024	Consultation with CLCs at #1 Café to introduce BECA and update on the project	Project update
August – September 2024	Rapid assessments - Consultation with Tokyo community members including vulnerable groups	National specialists talking to locals during community mapping walkovers to gather information on the condition of existing infrastructure and priorities for new infrastructure
15 Oct 2024	Consultation with Chiefs	PMU consultation with settlement leaders in preparation for FGDs
17 Oct 2024	Focus Group Discussions with male and female groups of community members	PMU conducted FGDs to form a baseline for monitoring purposes
5 Nov 2024	Meeting with chiefs and community leaders	Meeting with chiefs and community leaders to advise of upcoming community consultation sessions.
18 Nov 2024	Community consultation session with members of community	Session with community to present draft plans and obtain feedback from community on priorities, locations etc.
22 Nov 2024	Consultation with Affected Household	Initial consultation with HH living in road reserve. Head of HH volunteered to

Date	Consultation activity	Details
		relocate as they have several options available to them for relocation.
09 Dec 2024	Meeting with all CLCs at Nambawan Cafe	Community Consultation to provide project updates and receive feedback from CLC members
28 Jan 2025	CLC Representatives Meeting	Meeting with CLC regarding Ohlen Mataso 2nd infiltration pond.
12 Feb 2025	CLC Representatives Meeting	Follow-up meeting with CLC regarding Ohlen Mataso 2nd infiltration pond. Community decided against 2nd infiltration pond
26 March 2025	Consultation with Affected HH	Follow-up Consultation with Head of Affected HH to agree a moving date and support requirements
28 March 2025	Consultation with Affected HH	Follow-up Consultation with Head of Affected HH regarding moving date and support agreement
04 April 2025	Consultation with Affected HH	Follow-up Consultation with Head of Affected HH regarding moving date and support agreement
8 April 2025	Consultation with Community Leaders	Preparation for Household (HH) Surveys
15 – 24 April 2025	HH level consultation	Conducted HH Surveys Ohlen Mataso
13 May 2025	Meeting with community leaders	Consultation to prepare for upcoming design consultations with DSS
22 May 2025	Community Meeting	Consultation to confirm detailed design for settlement
06 June 2025	Consultation with Affected HH	Conducted HH Survey with Affected HH
24 June 2025	Consultation with Affected HH	Follow-up Consultation with Head of Affected HH regarding moving date and support agreement