

# Environmental Management Plan – Summary Version for Disclosure

## Lelata Bridge Replacement Project

Prepared for the Planning and Urban Management Agency, Minister of Natural Resources and Environment

Prepared by Samoa Land Transport Authority, Beca International Consultants Ltd and OSM Consultants (Samoa)

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## Revision History

Revision N°	Prepared By	Description	Date
1			August 2020
2			September 2020
3		Updated for UNDP comments, for construction purposes only	October 2021
4	UNDP/BECA	Updated for UNDP comments for construction purposes only	November 2021 to February 2022

## Document Acceptance

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# 1 Introduction

## 1.1 Background

This Environmental Management Plan (EMP) has been prepared to manage the assessed environmental and social impacts of the demolition of the existing Lelata Bridge and construction of its replacement.

The EMP forms part of the Land Transport Authority's (LTA) application for Development Consent and shall be implemented in accordance with that consent. The EMP is an Annex to the Preliminary Environmental Assessment Report (PEAR) prepared to provide the Planning and Urban Management Agency (PUMA) with sufficient information to approve consent, as well as ensuring the project will comply with UNDP's Social and Environmental Standards (SES). Through the GCF Accreditation Process, the SES was acknowledged to be in line with the GCF's Environment and Social Standards.

This EMP incorporates best practice environmental management in accordance with the Government of Samoa Codes of Environmental Practice (COEPs) and UNDP SES. These are intended to be included by the contractor in the physical works contract for Lelata Bridge. The awarded contractor will incorporate the goals and objectives as outlined in this EMP in the development of their Construction Environmental Management Plan (CEMP) which they will implement for the duration of the construction works.

This EMP is divided into the following sections:

- Section 1: Introduction, the PEAR, the COEPs and EMP implementation
- Section 2: General Environmental Management
- Section 3: Construction Site Management
- Section 4: Water Quality
- Section 5: Air Quality
- Section 6: Noise and Vibration
- Section 7: Traffic Management
- Section 8: Environmental Management Plan

## 1.2 Preliminary Environmental Assessment Report (PEAR)

A PEAR has been prepared in accordance with the *Environmental Impact Assessment (EIA) Regulations 2007* and UNDP SES to determine the likely impacts and their significance arising from the proposed reconstruction of Lelata Bridge. The following areas were identified as requiring mitigation to avoid or minimise adverse impacts during the construction stage:

- General construction site management.
- Noise and vibration.
- Dust generation and air quality.
- Erosion and sediment control.
- Impacts on water quality; and
- Traffic management and maintenance of community access.

## 1.3 Codes of Environmental Practice and UNDP SES

The current Samoa Codes of Environmental Practice (COEP's) were prepared in 2007 to define methods and procedures to be followed by consultants, designers, and contractors to avoid or mitigate adverse environmental impacts

associated with infrastructure development or maintenance projects.

There are 14 COEP's, including *COEP 1 – Administrative Procedures* which sets out the authority for the codes, definitions and the process for implementation and monitoring of the COEP's. The relevant COEPs for the Lelata Bridge project are:

- *COEP 1 – Administrative Procedures*
- *COEP 2 – Road Planning, Design and Construction*
- *COEP 4 – Land Acquisition and Compensation.*
- *COEP 5 – Construction Camps*
- *COEP 6 – Road Construction Erosion Control*
- *COEP 11 – Drainage*
- *COEP 12 – Traffic Control During Construction*
- *COEP 13 – Earthworks*

All works shall be required to be undertaken in accordance with the relevant COEPs. In addition, all works for this project will comply with UNDP's Social and Environmental Standards (SES), which came into effect 1 January 2015. The SES underpin UNDP's commitment to mainstream social and environmental sustainability in its Programmes and Projects to support sustainable development. Both Samoa national laws and regulations, and UNDP SES, and their compliance requirements for the Lelata bridge are described in Section 3 of the PEAR.

The management measures in sections 2-8 of this EMP refer to the most relevant UNDP SES Standards – however those references are not intended to be exhaustive. The contractor is expected to maintain full compliance with the UNDP SES throughout all stages of its works.

## 1.4 Preparation of Environmental Management Plans

As per *COEP 2 - Road Design and Construction*, and in line with the assessment and management requirements of the UNDP SES, the consultant shall prepare an EMP which is to be completed by the appointed contractor. The EMP shall set out the management, mitigation measures, and monitoring requirements that will be put into place during the project. The final CEMP produced from the EMP will be prepared by the contractor and shall:

- Identify the personnel who will have clearly defined roles and responsibilities in the implementation of the CEMP.
- Establish the chain of responsibility for managing the environmental aspects of the demolition and construction works.
- Identify the records to be maintained which demonstrate compliance with the CEMP.
- Establish the mitigation and contingency measures for at least the following:
  - Spills (i.e., fuel, oil).
  - erosion control.
  - litter control.
  - dust control.
  - water quality management (of the Vaisigano River).
  - noise control.
  - health and safety; and

- traffic management and access.
- Maintain and monitor all treatment devices.
- Undertake any training programmes for personnel to ensure the CEMP is implemented.

No equipment shall be moved onto a site, or works undertaken, prior to the approval of the CEMP by the Project Engineer.

## 1.5 Implementation of Environmental Management Practices

This EMP should be implemented using the following procedures:

1. The awarded contractor will produce a CEMP based on this EMP and their construction methodology. This will require approval from the LTA and Project Engineer, as well as UNDP.
2. Compliance with the CEMP is the responsibility of the Construction Site Manager who is the authorised representative of the Contractor under the conditions of their contract. In their absence from the site, a suitably trained deputy will take responsibility as Site Manager and therefore responsibility for compliance with this CEMP. The Site Manager will be responsible for:
  - a. daily site inspections.
  - b. weekly reporting to the LTA and PUMA.
  - c. incident reporting.
  - d. following up on complaints.
  - e. identification of where corrective action is required and ensuring these are undertaken.
  - f. maintaining written records of the above; and
  - g. 24 hours contact details for the Contractor and Construction Site Manager shall be always available on site.
3. Training of Contractors' staff will be undertaken in respect to environmental management expectations and a training record will be kept. All construction staff will be briefed on the CEMP and its requirements.
4. All sub-contractors or suppliers who have the potential to undertake activities that may result in adverse impacts will be required to read the CEMP and sign a declaration that they have read and understood it and will abide by the requirements therein. No sub-contractor will be allowed to commence work until this form is completed.
5. Where necessary, sub-contractors must supply evidence that they have undertaken the necessary action to adhere to the requirements of the CEMP.
6. The CEMP will be reviewed on an 'as required' basis.
7. No access shall be given to the contractor to the site until such time as a complete Traffic Management Plan (TMP) has been developed by the Contractor and approved by PUMA and LTA. If, in the opinion of the Project Engineer, the Contractor is not in compliance with the approved plans at any time during the execution of the site work the Engineer shall notify the Contractor and may suspend the work if the Contractor fails to rectify the deficiencies within the period specified by the Engineer.
8. The contractor shall make sure a copy of this EMP, the CEMP and Development Consent are always located on site for ease of reference. The contractor shall ensure construction works always

comply with these documents, and report any actually or potential variations to LTA as soon as possible. The contractor will be responsible for obtaining any variations to the PUMA development consent if required.

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