# Preliminary Environmental Assessment Report –

## 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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## Appendices

# Revision History

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# List of abbreviations/glossary

AUA - Apia urban Area
Beca - Beca International Consultants Ltd
CEMP – Construction Environmental and Management Plan
COEP - Code of Environmental Practice
CEAR - Comprehensive Environmental Assessment Report
CSEMP - Construction Environmental and Social Management Plan
CSL – Compute Services Limited
DC – Development Consent
EIA – Environmental Impact Assessment
ENSO - El Nino Southern Oscillation
ESIA - Environmental and Social Impact Assessment
ESP - Environmental and Social Policy
EMP - Environmental Management Plan
EPC – Electrical Power Corporation
EWACC – Economy-Wide Adaptation to Climate Change
FPIC - Free, Prior, and Informed Consent
GoS - Government of Samoa
GCF - Green Climate Fund
GHG - Greenhouse gas
IFC – International Finance Corporation
ILO – International Labour Organization
ICP - Informed Consultation and Participation
LTA - Land Transport Authority
LSE Act - Lands, Surveys and Environment Act 1989
MNRE - Ministry of Natural Resources and the Environment
MWCSD - Ministry of Women, Community and Social Development
MWTI - Ministry of Works, Transport and Infrastructure
PEAR – Preliminary Environmental Assessment Report
PMU – Project Management Unit
PPE - Personal Protection Requirement
PUMA - Planning and Urban Management Agency
PAA – Project Affected Area
RoW – Right of Way
SWA - Samoa Water Authority
SIDS - Small Island Developing State
SES - Social and Environmental Standards
SESP - Social and Environmental Screening Procedure
TMP - Traffic Management Plan
UNDP - United Nations Development Programme
VCP - Vaisigano Catchment Project

# Executive Summary

This Preliminary Environmental Assessment Report (PEAR) details the potential adverse and positive environmental and social impacts of the proposed Lelata Bridge Replacement Project. Lelata Bridge is being replaced by the Samoan Land Transport Authority with a new bridge constructed 2.8m higher to tie into flood protection walls that are being installed along the Vaisigano River as part of the Vaisigano Catchment flood protection scheme. The current Lelata bridge sits lower than the proposed Vaisigano flood protection walls. If left as its current height, the bridge would impede flood flows making the flood protection walls less effective increasing the risk of upstream flooding. To fix this problem, the bridge needs to be raised approx. 2.8 metres, the central bridge pier removed, and the bridge tied into the flood walls.

Adverse impacts that require management generally relate to the construction phase only. Impacts of the replacement works are anticipated to include:

- Temporary Noise and vibration impacts – the demolition of the existing bridge (concrete cutting and breaking) may generate medium to significant temporary and short-term impacts on the surrounding residential area. These activities will be temporary, of a limited duration and are expected to only occur during normal working hours. The contractor will be required to minimise noise and vibration impacts as much as practicable.

- Temporary Water Quality impacts – the demolition of the existing bridge and construction activities related to the construction of the new bridge could cause sediment and debris discharge from activities that disturb the riverbed and riverbanks such as the removal of the existing bridge and piers and the installation of new bridge piers and abutments. The contractor will be required to install mitigation measures to ensure impacts on the Vaisgano River are avoided or minimised.

- Temporary air quality and health and safety impacts – associated only with the cutting of concrete generating fine dust, especially silica which could affect workers undertaking this task, due to potential health impacts on lung tissue. Appropriate Personal Protection Equipment (PPE) and monitoring will be required during these activities.

- Temporary traffic and access disruption for adjacent residents – the replacement of Lelata bridge will require the existing bridge to be removed with vehicles detours required which will need to be advertised ahead of time to the resident and wider Apia community. To facilitate continued pedestrian access across the river, pedestrians will be directed via Loto Samasoni Bridge. The rising of the bridge and road approaches will also mean four accessways into private property will need to be reconstructed. The contractor will be required to maintain access to these properties at all times, or if not possible provide alternative arrangements in consultation with residents.
- Impacts on private land – access will be affected for several properties east of the river and north of the bridge. This will require a new access through property requiring either acquisition or an easement. An easement will also be required across the top northern corner of property on the south western side of the bridge to provide for power utilities to run beside the bridge. Agreements are currently being worked through with the affected landowners.

- Permanent change to the visual landscape – rising the bridge 2.8m at the highest point will alter the visual landscape, especially for those properties closest to the bridge. The approaches and abutments of the bridge will be a solid structure, with gabion baskets comprising the external walls. This will be a significant visual change and vegetation planting may be required in consultation with adjacent landowners to provide visual screening of the bridge.

Where possible, these impacts will be avoided, reduced, or mitigated in accordance with the measures outlined in the Environmental

Management Plan (EMP) attached to this PEAR and summarised in Section 8.

There are also significant positive social-economic impacts from the replacement of Lelata Bridge. These include contributing to flood resilience within the Vaisigano River catchment and reducing the risk of upstream flooding caused by the existing bridge. The Vaisigano Catchment Project (VCP) is supporting flood remediation activities within the Vaisigano Catchment. With the new bridge being raised and the central pier removed, the resilience of the bridge against future flooding will also be improved.

Overall, with the implementation of appropriate management and mitigation, adverse environmental impacts will be minor. The Contractor will be required to prepare and implement a Construction Environmental and Social Management Plan (CSEMP) as well as appropriate environmental and social safeguard document to ensure all construction impacts are controlled and managed appropriately. Overall the replacement of the Lelata Bridge will have a positive impact for the surrounding community and Apia in general.

# 1 Introduction

## 1.1 Context

The Land Transport Authority (LTA) has commissioned …….in association with ……to undertake design services for the replacement of the Lelata Bridge, within the Vaisigano River catchment in Apia. This will essentially be a like-for-like replacement, i.e. the same location and layout. However, whilst the existing bridge is relatively modern (constructed in 2001) and in good condition, it sites significantly lower than the proposed Vaisigano Catchment Project flood protection wall proposed along this section of the Vaisigano River. To tie into these walls, Lelata Bridge will need to be raised by 2.8m to ensure the floodway below can pass the design flood with sufficient freeboard thereby increasing flood resilience of the wider Vaisigano catchment.

The Planning and Urban Management Agency (PUMA) has advised that the requirement for the assessment of environmental impacts of the proposed work can be met through the submission of a Preliminary Environmental Assessment Report (PEAR) and Environmental Management Plan (EMP), in accordance with the Environmental Impact Assessment Regulations 2007. This is due to the nature of the work being predominantly improvements to existing infrastructure and therefore, as this assessment report shows, not likely to generate significant adverse impacts.

This PEAR has also been prepared in conjunction with the Environmental and Social Safeguards prepared for the Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa project prepared by the United Nations Development Programme (UNDP) for funding from the Green Climate Fund (GCF).

This PEAR will be submitted by the LTA to the PUMA seeking approval under the Planning and Urban Management Act 2004 (the Act) and the associated Environmental Impact Assessment Regulations 2007 (the Regulations) to undertake the proposed works as described in Section 2 of this PEAR.

## 1.2 PEAR Structure

The structure of this PEAR is based on the requirements outlined in *Part I (Section 1) Schedule – Content of an EIA* of the Regulations:

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| **Executive Summary** | Provides a summary of key issues and a conclusion of the environmental assessment report. |