MOTT MACDONALD

Almaty Airport Expansion

ESMP Report

August 2021

Mott MacDonald
10 Fleet Place
London EC4M 7RB
United Kingdom

T +44 (0)20 7651 0300
mottmac.com

TAV Airports Holding
Vadi Istanbul Cendere
Street No:109 2C Blok
34485 Sarıyer / Istanbul
Turkey

Almaty Airport Expansion

Framework Environmental and Social Management Plan

August 2021

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	30 April 2021	L. Bagshaw K. Gareau	J. Stroud	F. Kilmurray	For client comment
B	14 May 2021	L. Bagshaw J. Stroud	J. Stroud	F. Kilmurray	For lender comment
C	20 August 2021	J. Stroud	L. Bagshaw	F. Kilmurray	Updated to comments
D	25 August 2021	T. Cheung	J. Stroud	J. Stroud	For disclosure

Document reference: 100100464 | ESMP | Rev C Almaty Airport

Information class: Standard

Contents

Tables

Figures

Acronyms and Abbreviations Table

Abbreviation/Acronym	Definition
AIS	Alien Invasive Species
ALA	Almaty International Airport (International Air Transport Association code)
APU	Auxiliary Power Unit
CESMP	Construction Environmental and Social Management Plan
E&S	Environment and Social
EHS	Environmental, Health and Safety
EPC	Engineering Procurement and Construction
ERM	Environmental Resources Management, Inc
ESAP	Environmental and Social Action Plan
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
GHG	Greenhouse Gas
GIIP	Good International Industry Practice
GSE	Ground Service Equipment
H&S	Health and Safety
HGV	Heavy Goods Vehicle
HR	Human Resources
IFC	International Finance Corporation
KPIs	Key Performance Indicators
PCB	Polychlorinated biphenyl
PS	Performance Standards
VIP	Very Important Person

1 Introduction

1.1 Background

TAV Airports Holding Co. (hereafter referred to as TAV), alongside partner VPE Capital Ltd, are purchasing Almaty International Airport ('ALA'), Kazakhstan. Financing is provided by international lenders, namely the European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC).

As part of the purchase, a new terminal is proposed as part of a plan to expand and modernise the airport. TAV has appointed TAV Construction, an organisation in the same group, as the lead contractor for the construction works associated with the new terminal.

Mott MacDonald Ltd, supported by EcoSocio Analysts LLC, has been appointed by TAV to undertake an Environmental and Social Impact Assessment (ESIA) to determine the potential impacts, and subsequent effects, of these works, supported by an overarching Environmental and Social Management Plan (ESMP) (i.e. this document).

1.2 Overview and Purpose of the ESMP

This document describes the framework to establish the ESMP for the Almaty Airport expansion works, henceforth referred to as "the Scheme". This ESMP aims to address the impacts identified in the Environmental and Social Impact Assessment (ESIA) by outlining plans, and their contents, for managing these issues and is a requirement of the Scheme's Environmental and Social Action Plan (ESAP) (forming item 2.1 of the ESAP). The ESAP forms part of the financial agreement between TAV and the project lenders (EBRD and IFC) as means to ensure that environmental and social obligations are met by TAV. Therefore, an ESMP forms a requirement in that agreement.

The objective of the plans outlined in the ESMP is to ensure a consistent approach towards the identification, control, management and reduction of environmental and social (E&S) risks and impacts associated with the construction and operation of the following Scheme components (as shown on Figure 1.1):

- New Terminal Building;
- VIP Terminal; and
- Mechanical Engineering Buildings.

In addition to these key areas, associated works to the apron, internal road access, existing terminal modification, and car parking layout are proposed. For a full description of the Scheme components, see Chapter 2 of the ESIA.

This plan has been developed to comply with all national laws as well as good international industry practice (GIIP). The overarching reference laws and standards applied are:

- International Finance Corporation (IFC) Performance Standards (PS) on Environmental and Social Sustainability (2012);
- IFC Environmental, Health and Safety (EHS) Guidelines: General Guidelines (2007);
- IFC Environmental, Health and Safety Guidelines: Airports (2007);
- IFC General EHS Guidelines: Construction and Decommissioning (2007);

- European Bank for Reconstruction and Development (EBRD) Environmental and Social Policy and Performance Requirements (PR) (2019);
- EBRD Sub Sector Environmental and Social Guidelines – Air Transportation (2014).

Figure 1.1: Aerial Plan

Source: Mott MacDonald, 2021

Where relevant, this ESMP consolidates and builds on the mitigation and monitoring requirements identified in the ESIA (Volume II) and establishes a framework under which the engineering procurement and construction (EPC) contractor (intended to be TAV Construction Ltd) should develop mitigation and management plans. TAV (henceforth referred to as the "Project Sponsor") and TAV Construction (henceforth referred to as the "EPC Contractor") will be required to develop standalone mitigation and monitoring policies and plans, implementing the requirements contained within this document as a minimum.

1.3 Scope and Development of ESMP

The ESMP applies to the design, construction and operational phases of the Scheme and to all personnel employed on the Scheme in accordance with their tasks and responsibilities.

This document is an overarching framework for environmental and social management. The EPC Contractor will be required to transpose the measures and principles of this framework document into a Construction Environmental and Social Management Plan (CESMP) prior to site preparation/construction activities taking place.

1.3.1 Construction ESMP

The CESMP details environmental control steps necessary to reduce environmental and social impacts through the entire construction phase of the Scheme, identifying as a minimum:

- Description of the works;
- Regulatory requirements;
- Site organisation and management;
- Roles and responsibilities;
- Review, reporting and auditing procedures;
- Environmental and social risks and impacts;
- Mitigation and protection measures;
- Monitoring requirements;
- Training requirements;
- Emergency response plans; and
- Method statements (where applicable).

The development of the CESMP will be prepared prior to site preparation and construction works and will be supported by the following:

- Policies – overarching system of principles to guide the Scheme's environmental and social performance;
- Plans – additional, more detailed plans prepared by contractors related to specific aspects and areas which are impacted by their scope of works (i.e. waste management plan); and
- Procedures – more specific work instructions developed by the Project Sponsor, in collaboration with construction contractors, to support the implementation of the plans.

The Project Sponsor will be responsible for oversight of the EPC Contractor during the construction phase. The Project Sponsor will also be responsible for ensuring the Scheme complies with mitigation measures outlined within this document for the operational phase.

1.4 Structure of the ESMP

This document comprises the following key elements:

Chapter 2 outlines the institutional arrangements through which the ESMP will be implemented and the relationship and responsibilities between the Project Sponsor and the EPC Contractor. Where relevant, a number of capacity building measures have been identified to ensure that the institutional arrangements are appropriate and qualified for the allocated tasks.

Chapter 3 introduces the training requirements for the Scheme to ensure the right capability and capacity of the staff and organisations involved. It also outlines how to ensure the training is appropriate and records are effectively kept on which staff have received which training.

Chapter 4 provides an outline on the various site-specific ESHS management and monitoring plans to be implemented as part of the ESMP by the Project Sponsor and its EPC Contractor. The sub-plans are intended to ensure that the various mitigation measures / activities identified through the ESIA process are incorporated by the project in a structured way.

Chapter 5 gives an overview of monitoring and reporting requirements associated with the activities and commitments contained within the ESMP documentation. The monitoring and reporting requirements include an adaptive management capacity to the ESMP reflecting that it is intended to be a live document subject to regular review and update as the Scheme evolves.

2 Implementation and Institutional Arrangements

2.1 Overview

Key stakeholders involved in the Scheme's construction and operation will be the Project Sponsor – the owner and project developer, and the EPC Contractor – the lead organisation employed to construct the Scheme. The Project Sponsor has overall accountability for the implementation of the mitigation measures outlined in this ESMP.

The EPC Contractor will be required to transpose the measures and principles of this framework document into a Construction ESMP (CESMP), and the Project Sponsor will be required to transpose the measures and principles of this framework document into an Environmental and Social Management System (ESMS) which will include the operational phase of the Scheme.

Further detail on the management plans that the different organisations will develop and be responsible for implementing is provided in Chapter 4.

2.2 Roles and Responsibilities

This section outlines the roles and responsibilities for the Project Sponsor and EPC Contractor. It is recommended that a "RASCI Matrix" is produced as part of the project ESMS for both construction and operation phases by TAV Construction and TAV respectively. This would show, for each main task, who has **R**esponsibility, who has **A**ccountability, who is **S**upporting, who should be **C**onsulted, and who should be **I**nformed. This would be done once personnel are identified and roles are fully agreed.

2.2.1 The Project Sponsor's Role

The Project Sponsor will have the overall accountability for the compliance of the Scheme during the construction and operation phases. It will be the responsibility of the Project Sponsor to oversee and monitor the implementation of relevant ESMP elements by the EPC Contractor and any of their sub-contractors during the construction phase. This will include auditing and assessing the EPC Contractor's implementation of the relevant aspects of the ESMP, ensuring that corrective actions are taken when necessary to maintain ESHS performance in line with international standards and good international industry practice (GIIP).

As per the project ESAP, the Project Sponsor will be responsible for developing the ESMS which will outline the systems and processes that will be established to manage the environmental and social issues. The ESMS will establish policies for the Scheme and provide more details on the management at an organisational level in order to implement this ESMP and align with other management system requirements.

As the project moves into the operational phase, the Project Sponsor will have an increased direct role in the management and monitoring of environmental and social issues.

2.2.2 The EPC Contractor's Role

The EPC Contractor will be required to meet the specific requirements outlined within the CESMP; this is to be implemented through the agreements between the Project Sponsor, EPC Contractor, and the other contractors. For example, this can be by adding specific provisions to

agreements or annexing this framework ESMP to such agreements. The contractor agreements should ensure compliance with this ESMP and appropriate national and international requirements.

It will be the responsibility of the EPC Contractor to successfully implement the construction phase mitigation and monitoring measures outlined within this document through a dedicated CESMP and to ensure compliance of any construction contractors in meeting the requirements within it. The EPC Contractor will appoint a Worker's Grievance Manager to deal with any labour grievances of the workers and sub-contractors' workers including sensitive complaints for the construction phase. The EPC Contractor will also appoint a Community Liaison Officer (CLO) to interact with local communities as necessary. The EPC Contractor will be required to undertake regular monitoring and inspections of the construction contractors and the Scheme site and will be required to keep up-to-date records as prescribed in this ESMP and report regularly to the Project Sponsor.

2.3 Management of Environmental, Social, Health and Safety

In order to realise the organisational roles and responsibilities outlined above, each organisation needs to staffing structures and roles in place to manage Environmental, Social, Health and Safety (ESHS) issues and risks for both the construction and operational phases. This section outlines these firstly for the construction phase and then for the operational phase.

2.3.1 Construction Phase ESHS Management

During the construction phase, the EPC Contractor will be primarily responsible for developing and implementing the CESMP. The Project Sponsor will provide oversight and has ultimate accountability for the construction phase. Further details on this are provided as follows for each organisation.

2.3.1.1 EPC Contractor

The EPC Contractor will be required to adhere to the principles of ISO 14001:2015[1] and ISO 45001:2018 [2] or equivalent if not already accredited. These standards place strong emphasis on the need for continuous improvement of the ESHS management systems and resultant ESHS management performance.

The EPC Contractor will be required to agree to the following actions:

- Develop a project-specific CESMP.
- Elaborate other parallel sub plans (e.g. Air Quality Management Plan, Construction Traffic Management Plan etc – see Table 4.1 for more information).
- Implement the requirements of the mitigation activities in the CESMP.
- Undertake environmental and social monitoring as specified in this ESMP.
- Provide a construction site layout plan that identifies key activity areas in line with the relevant requirements.
- Produce detailed method statements relating to key activities that include specific reference to requirements of the plans contained herein during the project progression.
- Provide all training necessary to oversee and implement ESMP requirements prior to and throughout construction as appropriate.

[1] ISO 14001:20154 http://www.iso.org/iso/home/standards/management-standards/iso14000.htm

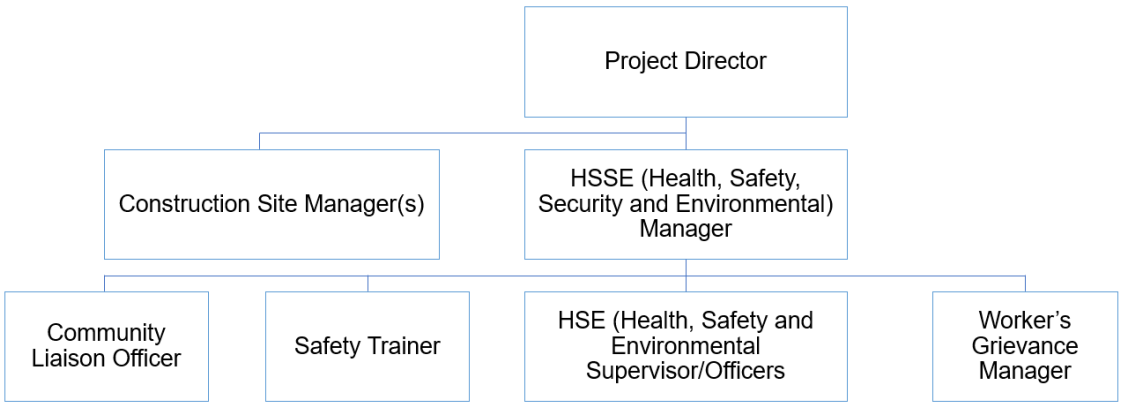
[2] ISO 45001:2018 https://www.iso.org/standard/63787.html

- Be responsible for producing a comprehensive suite of ESHS management and coordination procedures.
- Identify a person to be on site with dedicated ESHS responsibilities to oversee works on site. This person must be full time, appropriately qualified, and have more than ten years of relevant experience. The ESHS manager will be supported by an ESHS team.
- Appoint the Worker's Grievance Manager to manage and monthly report on labour grievances and labour performance monitoring, including all sub-contractors.
- Appoint the CLO to interact with the local communities and receive, register, investigate, manage and monthly report on any community grievances received during the construction period.

All contractor staff will be responsible for EHS management in their specific role. The responsibilities of dedicated ESHS staff is then focused on the monitoring of and reporting on CESMP and ESMS commitments and improvements, and any additional plans outside of the work of construction site staff.

The EPC Contractor will be responsible for construction contractor performance, including contractor adherence to the requirements of the CESMP. All construction contractors will be required to have dedicated environmental and social staff to implement the CESMP and to monitor and manage this on an on-going basis. Contractor staff will be required to liaise closely with the EPC Contractor ESHS staff, including the provision of monthly reports and participation in weekly construction review meetings, for example. A typical construction contractor ESHS staffing structure that could be expected for the Scheme is set out in Figure 2.1 and Table 2.1.

Figure 2.1: Possible EPC Contractor ESHS structure



Source: Mott MacDonald, 2021

Table 2.1: Typical EPC Contractor ESHS staffing

Role	Responsibility	Typical number of staff in role (depending on scale of works)
Project Director	Overall responsibility for the entire EPC contract, including ESHS performance of Scheme contracted works, including sub-contractor(s).	1
Construction Site Manager	Coordination of all construction activities, including practical implementation of ESHS requirements at site and onsite ESHS performance.	1

Role	Responsibility	Typical number of staff in role (depending on scale of works)
HSSE Manager	Monitoring and reporting of Scheme ESHS performance. ESHS regulatory interface. Management and monitoring of CESMP plans implementation and environmental issues and performance Manages the team Reports into the site manager Organising training for staff, including induction training (liaising with Environmental and Social Officers for delivering training) Ensuring project has the right environmental and social permits, consents, and discharged conditions to undertake the works Liaise with HR teams to ensure workers have the appropriate facilities, contracts, permits, qualifications and capacity for their work.	1
HSE Supervisor HSE Officers Safety Trainer	Monitoring and enforcement of CESMP plans implementation and environmental issues and performance Auditing of site activities and any sub-contractor activities, including against permitting and consent requirements or any conditions Monitoring of CESMP plans implementation and report health and safety issues to the ESHS Manager Delivering training as required including “toolbox talks”. The Safety Trainer and Safety Supervisor will support the HSE team with ensuring high standards of health and safety on site, monitoring of health and safety, and providing training, amongst other duties.	1x HSE Supervisor 1x Safety Trainer Number of officers may vary depending on level of activity.
Workers Grievance Manager	Maintaining the workers’ grievance mechanism Managing and resolution of staff grievances Monitoring labour performance of all sub-contractors Monthly reporting on labour grievances and labour performance including at construction contractors	1 + 1 x Workers’ Grievance Managers at construction contractors
Community Liaison Officer	Responsible for community liaison and arranging communications with project affected communities during construction Responsible for receiving, channelling and managing community grievances during construction Responsible for monthly community grievance reporting	1

As the Scheme nears operation and throughout operation, the institutional structure will be adapted to best meet the requirements of the Scheme at the time.

ESHS Senior Manager

The EPC Contractor will be required to nominate a person to take the primary responsibility for day-to-day implementation of the CESMP and parallel management plans, i.e. the ESHS Manager role. The formal job description will be in accordance with the elements provided below. The nominated person will carry out the following responsibilities:

- Take prime responsibility for implementation of the environmental management;

- Oversee and ensure the implementation of the CESMP and sub plans (with support from the Construction Site Manager, detailed below) and ensure all sub-contractors are in compliance with the CESMP requirements;
- Review and report performance to the construction site manager, the EPC Contractor and the Project Sponsor;
- Review sub–contractor(s) environmental protection/mitigation measures to ensure compliance with the CESMP;
- Report on a daily basis any CESMP non-compliances to the EPC Contractor's construction manager;
- Carry out regular environmental awareness sessions and assist personnel in applying environmental standards on site;
- Organising training for staff, including induction training (liaising with Environmental and Social Officers for delivering training)
- Conduct regular audits / inspections to check that committed impact mitigation measures are being implemented;
- Act as the first point of contact on environmental matters for the EPC Contractor, for the government authorities, other external bodies and the general public;
- Ensuring project has the right environmental and social permits, consents, and discharged conditions to undertake the works; and
- Liaise with Human Resources (HR) teams to ensure workers have the appropriate facilities, contracts, permits, qualifications and capacity for their work.

There are certain aspects that the EPC Contractor's ESHS Senior Manager will be required to have knowledge and experience in, including:

- An understanding of the international standard techniques of environmental management;
- Familiarity with local environmental legislation and the likely developments in this field;
- Practical operation of environmental monitoring techniques;
- Ability to summarise environmental data in order to produce concise and conclusive reports;
- Have the confidence to enforce strict, but pragmatic, environmental and social control procedures and to motivate the construction staff to a high level of environmental and social awareness; and
- Minimum of ten years practical experience on construction sites.

Construction Site Manager

The Construction Site Manager will co-ordinate activities based on inputs from the ESHS Manager and assist in the allocation of staff with the skills for applying the CESMP on site. It is envisaged that the Construction Site Manager will:

- Ensure that the ESHS Manager is adequately qualified to understand and implement the CESMP;
- Nominate personnel to assist the environment and social officer as required;
- Be responsible for communications with the Project Sponsor regarding environmental issues and non-compliances;
- Supervise and oversee the direction of the Scheme (or a package of it), ensuring that the specifications and requirements are met, reviewing progress and liaising with quantity surveyors to monitor costs;

- Liaise with the Project Sponsor, other construction professionals and, sometimes, members of the public;
- Provide visible and meaningful support to the ESHS Manager to resolve environmental and social issues on site or within the organisation's structure;
- Coordinate and supervise construction workers;
- Make safety inspections, ensuring construction and site safety;
- Check and prepare site reports, designs and drawings;
- Maintain quality control procedures;
- Assess and minimise risk; and
- Help to negotiate contracts and securing permits and licences.

Environmental, Social, and Health and Safety Monitoring Officers

The EPC Contractor's Environmental, Social and Health and Safety Monitoring Officers will complete surveys and regular site checks to confirm E&S compliance regarding aspects as identified in the CESMP and as required by local authorities, including matters of health and safety and labour performance. Where evidence of E&S, labour or health and safety risks are found, the monitoring officers will contact those responsible and request the issue is rectified. They will be responsible for ensuring previously identified non-conformities are completed to an appropriate standard, enlisting support from the ESHS site manager where required. The officers will have an ability to explain technical matters simply to non-scientific audiences, including providing training. Training will include provision of "toolbox talks" on site on a wide range of environmental, social, labour and health and safety matters.

The officers will support the ESHS Senior Manager with auditing against permits and consents requirements, including any conditions associated with the permits/consents.

2.3.1.2 Project Sponsor

The Project Sponsor has overall accountability for the construction phase and the management of ESHS. As part of this, the Project Sponsor is accountable for the oversight of the EPC Contractor for their performance and that of all contractors on a regular basis. This will include the EPC Contractor's responsibilities with regards to the CESMP and environmental and social management, in accordance with international best practice. This oversight may be implemented through drawing on the services of independent specialists as required.

The Project Sponsor will therefore undertake the following throughout the duration of the construction period:

- Review contractor documents (for example, associated sub-management plans, procedures, and mechanisms for reporting, record keeping and auditing) against the requirements of this ESMP;
- Undertake regular audits;
- Continuously check records to allow for the identification of patterns;
- Set up a contractor reporting structure; and
- Conduct regular meetings where ESHS issues are an agenda item.

The Project Sponsor will include detailed requirements in the Contractors' contracts and agreements, including provisions to incentivise adherence to these requirements such as withheld payments in cases of poor environmental performance or additional payments for

excellent performance. The Project Sponsor will closely monitor all reports received from the Contractors to monitor compliance.

Whilst a management staff structure for the Project Sponsor during construction is not proposed here, roles are to be established to ensure the above responsibilities can be effectively carried out. Additional support from independent specialists should be drawn on to support where needed.

However, aspects of the operational phase management structure for ESHS should be implemented for the construction phase (see Figure 2.2).

The ESHS Director will be responsible for regular review meetings with the Lenders' Technical Advisor(s) (LTA) for the project. This will include submitting reports and auditing results.

2.3.2 Operational Phase

2.3.2.1 EPC Contractor

The EPC Contractor roles are focussed on the construction phase only. Therefore, there is no proposed role or management structure for them during the operational phase.

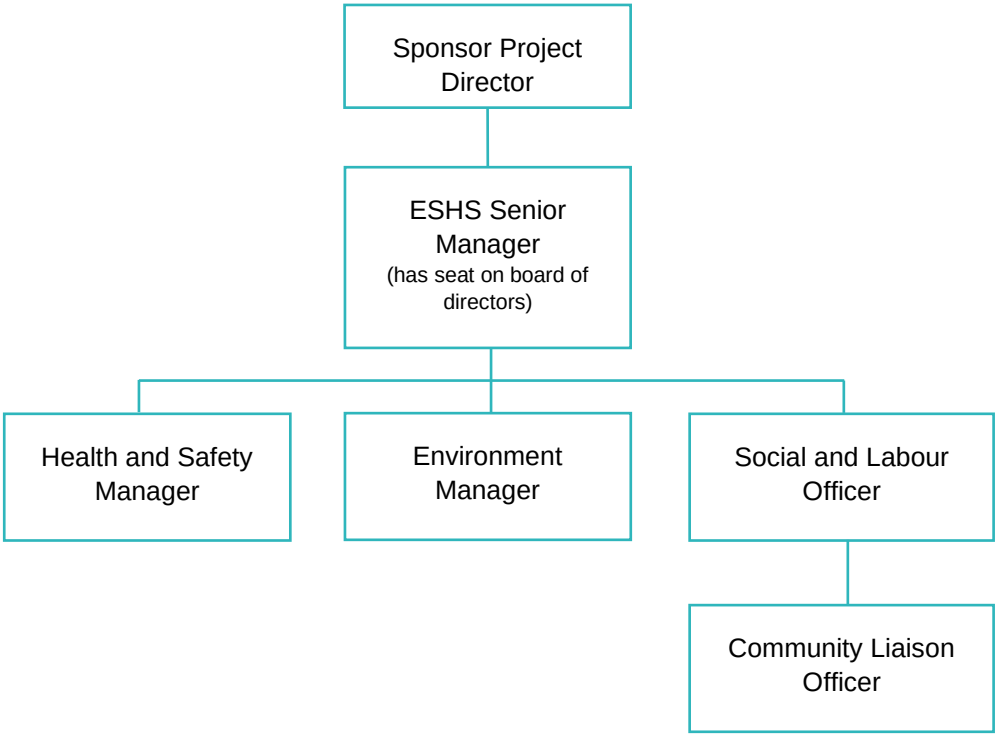
2.3.2.2 Project Sponsor

The Project Sponsor will establish an ESHS department to oversee and manage all ESHS issues during the operational phase; this is likely to build on the existing airport ESHS department but information on its current structure is not known at the time of writing.

Specifically, they will also be responsible for undertaking environmental and social management and monitoring as outlined in this ESMP.

A preliminary staffing structure of the ESHS department is set out in Figure 2.2 and in Table 2.2. Project Sponsor personnel key roles and responsibilities will be set out in procedures created as part of the ESMS, including organisational and individual working procedures.

Figure 2.2: Preliminary operational ESHS organogram



Source: Mott MacDonald, 2021

Table 2.2: Project Sponsor operational ESHS department – key roles and responsibilities

Role	Responsibility	Location
Sponsor Project Director	Policy, overall responsibility, government liaison	Head office with regular visits to site
ESHS Senior Manager	Compliance reporting on all H&S issues to the ESHS Director	On site
Environment Manager	Compliance reporting and day-to-day oversight of environmental issues (may be a shared role with Social and Community Manager).	On site
Social and Labour Officer	Compliance reporting and day-to-day oversight of social and labour-related issues (may be a shared role with Environment Manager).	On site
Health and Safety Manager	Compliance reporting and day-to-day oversight of health and safety issues	On site
Community Liaison Officer	Day-to-day interaction with all people affected by the Scheme. This role may form part of the Environment Manager role, or a shared role with a member of staff from another team (such as Human Resources or general airport management).	On site

Whilst some evolution of the department structure, staff numbers, and responsibilities is expected, the overall structure and roles and responsibilities will be defined during its inception and modifications implemented as required.

3 Training Programme

3.1 Overview

In achieving the approach to environmental and social management described in previous sections, it is implicit that all staff receive the required training in both general and job-specific terms. This training should not be considered a stand-alone exercise but must form an integral part of on-going training programmes.

Environmental and social training will help to ensure that the requirements of the ESIA, ESMP and ESMS are clearly understood and followed by all personnel and that the parties involved have the right capability and capacity for their work.

The chapter describes the requirements training for environmental and social training in both the construction and operation phases.

3.2 Construction Phase

Staff training is a key aspect of managing environmental risks during the construction phase. The EPC Contractor will be responsible for developing and delivering training for construction staff and ensuring that sub-contractors are suitably qualified for their roles. The Project Sponsor is responsible for oversight of the EPC Contractor and is ultimately accountable for appropriate training for construction staff.

The environmental and social training programme for the construction phase will be finalised before the commencement of the construction of the Scheme, taking place during the detailed design phase. Training programmes will be reviewed at least annually to ensure they are meeting the Scheme requirements and international best practice, with updates made accordingly.

Operational airport staff whose period of employment overlaps with the construction works, but whose role is focussed on operational aspects rather than construction aspects, would form part of the operational phase training programme (Section 3.3). The training of such staff would be the responsibility of the Project Sponsor and not of the EPC Contractor.

3.2.1 General Environmental and Social Awareness Training

All construction staff will be required to attend an in-house training course on general environmental and social awareness. This will be delivered in a consistent structure, irrespective of the staff designations attending. The main objective of this type of training is to provide:

- A general understanding of the environmental and social risks associated with the Scheme;
- Local, national and international actions that are required to manage these risks; and
- Clarification of the environmental and social policies for the Scheme (informed by environmental policies of the Project Sponsor and EPC Contractor) and their practical implementation. This will emphasise that the policies carry implications for the working methods and responsibilities for all employees.

Continual awareness of environment and social matters will be maintained. The Scheme's Environmental and Social Policy Statement should be on permanent display in prominent positions around site, such as the administration block, reception area, the control room, staff catering facilities and construction site offices.

Awareness training should include for emergency preparedness to deal with emergency situations that may impact the environment (e.g. chemical / fuel spillage, aircraft crash, terrorist event or natural disaster such as mudflow or earthquake) where relevant for the role. Practice or test sessions for emergency response performance should be undertaken as needed. Where identified, lessons learned and improvements should be incorporated into training and procedures.

3.2.2 Environmental and Social Issues Training

All personnel and third-party visitors entering work sites are to attend a site induction prior to entering.

Specific or specialist E&S training will be provided as follows:

- For employees who carry out the same or similar roles as the Contractor(s) supervisors;
- For construction workers as applicable to their job responsibilities, mainly through toolbox talks; and
- For selected workers responsible for emergency responses to spills.

All organisations involved in the Scheme will develop and maintain a training needs matrix and associated training programme to identify which specific job roles for their respective organisations require additional specialist training.

Specialist training will either be performed by suitably qualified in-house personnel, or by approved external training providers.

3.3 Operational Phase

The environmental and social training programme for the operational phase will build upon the existing training and capability that already exists for the operational airport. It is the responsibility of the Project Sponsor to update the airport's operational training requirements and processes in line with international best practice and lender requirements. This includes reviewing the existing staff capability to identify where changes are to be made.

All operational staff will need to be aware of new ESHS processes and systems that are introduced. This forms part of the remit of the operational ESHS management team (as described in Section 2.3.2).

As new operational staff join, they will receive the updated general environmental and social awareness training, as well as the updated training for their specific role.

Training programmes will be reviewed at least annually to ensure they are meeting the Scheme requirements and international best practice, with updates made accordingly.

3.3.1 General Environmental and Social Awareness Training

As with the construction phase, operational phase staff will be expected to have an understanding of the overarching environmental and social policies for airport operations, including how these policies impact upon their role. All staff should have a general awareness of environmental and social matters.

Awareness training should include for emergency preparedness to deal with emergency situations that may impact the environment (e.g. chemical / fuel spillage, aircraft crash, terrorist event or natural disaster such as mudflow or earthquake) where relevant for the role. Practice or test sessions for emergency response performance should be undertaken as needed. Where

identified, lessons learned and improvements should be incorporated into training and procedures.

3.3.2 Environmental and Social Issues Training

Many operational roles have a greater requirement for training beyond the general environmental and social awareness training. As considered above, there are existing training processes for the operational airport which will be reviewed and updated as required in line with international best practice, with existing operational staff given updated training that is specific for their role. Updates will consider staff current roles, how such roles are currently performed, the associated environmental and social risks, and any gaps found.

3.4 Training Records

Staff will complete and sign an attendance sheet for all courses attended, including the environmental and social awareness training or “toolbox talks”. It would also be recommended that staff complete a course evaluation sheet at the end of each course in order to assess the effectiveness of the training delivered.

All records, including the course evaluation and attendance sheets, will be held in a central location by the Health and Safety team (as part of the EPC Contractor during construction, or as part of the Project Sponsor during operation), and made available during any audit conducted as part of the audit programme.

The frequency and content of the training will be reviewed regularly to ensure it is effective, delivered in the correct manner and to the correct audience. Lessons learned during the Scheme works will be incorporated into the training as they arise.

4 Environmental and Social Management Programme

This section details additional studies and management plans which will be required to avoid, minimise and compensate for the impacts identified in the ESIA. These plans have been identified as part of the ESIA and ESAP processes and are presented in Table 4.1 below.

These measures are grouped into tables to show which stage of the Scheme they are required to be completed in:

- Additional studies required to inform detailed design and CESMP;
- Construction Environmental and Social Management Subplans. To be finalised prior to any site preparation and construction works; and
- ESMS Subplans (to be finalised as part of operations commencing). Note that, given the airport is already operational, most of these plans will need to be prepared as part of the takeover of the airport by TAV, as opposed to waiting until construction of the new terminal approaches completion.

A summary of the plans along with the Scheme phase and responsible party is shown in Table 4.1 below.

Table 4.1: Summary of Scheme plan requirements

Plan Name	Phase	Responsibility
Stormwater Management Plan	Construction	EPC Contractor
Spill Response Plan	Construction	EPC Contractor
Emergency Response Plan (Construction Phase)	Construction	EPC Contractor
Construction Site Water Management Plan	Construction	EPC Contractor
Hazardous Material Management Plan	Construction	EPC Contractor
Topsoil Management Plan	Construction	EPC Contractor
Ecological Management Plan	Construction	EPC Contractor
Air Quality Management Plan	Construction	EPC Contractor
Construction Noise and Vibration Management Plan	Construction	EPC Contractor
Construction Traffic Management Plan	Construction	EPC Contractor
Heritage Integration Plan	Construction	Project Sponsor
Chance Finds Procedure	Construction	EPC Contractor
Significant Fabric Assessment (for heritage at the VIP Terminal)	Construction	EPC Contractor
Construction Site Waste Management Plan	Construction	EPC Contractor
Contractor Management Plan	Construction	EPC Contractor
Stakeholder Engagement Plan	Construction	EPC Contractor
Accommodation Plan	Construction	EPC Contractor
Community Grievance Mechanism	Construction	Project Sponsor / EPC Contractor
Grievance Management Plan	Construction	EPC Contractor
Construction Occupational Health and Safety Plan (including specific prevention and control plans for pandemics including Covid-19)	Construction	EPC Contractor

Plan Name	Phase	Responsibility
Influx Management Plan (if required – based on current information this is considered in the ESIA to not be required, but reassess this if the number and origin of construction workers changes)	Construction	EPC Contractor / Project Sponsor
Emergency Response Plan (Operational Phase)	Operation	Project Sponsor
Operation Water Management Plan	Operation	Project Sponsor
Grass Management Plan and Pesticides Management	Operation	Project Sponsor
Operation Biodiversity Management Plan	Operation	Project Sponsor
Operation Traffic Management Plan	Operation	Project Sponsor
Emissions Control Plan	Operation	Project Sponsor
Operational Noise and Vibration Management Plan	Operation	Project Sponsor
Operational Waste Management Plan	Operation	Project Sponsor
Retrenchment Plan	Operation	Project Sponsor

Table 4.2 details any additional studies that are required to inform the detailed design and construction management.

Table 4.3 details the plans and policies that will be required to inform detailed design and the CESMP. These studies include baseline information that will require further assessment to ensure all avoidance and mitigation measures are appropriately captured and allocated. This table includes the plans and policies that will be required to be produced prior to construction commencing to be included within the CESMP. Table 4.4 provides opportunities for carbon improvements also as part of the detailed design stage.

Policies and processes that need to be established by the EPC Contractor relating to construction workers are presented in Table 4.5.

Table 4.6 details the documents that are required to be produced prior to the Scheme's operational period, to be part of the ESMS.

The plans and procedures identified are framework documents only and will need to be developed further by the Project Sponsor and agreed with Lenders. Plans and policies identified in this section have been taken from the ESIA and ESAP. For information of the mitigation outlined in the ESIA, Appendix A.6 of the ESIA and also contains the mitigation register for the ESIA.

Table 4.2: Additional studies required

Additional study	Purpose	Detail of additional studies	Preparation phase	Responsibility
Water Quality Baseline Assessment	This plan will provide a water quality baseline prior to development.	Assess surface water, groundwater, and wastewater quality at the site.	In parallel with detailed design	Project Sponsor
Flood Risk Assessment	To understand the potential for the airport to be inundated due to fluvial flooding from nearby rivers.	Consider whether there is potential for the nearby waterbodies to flood in a way which would impact the airport and its operations.	Operational phase	Project Sponsor
Land contamination risk assessment	This plan will provide detailed assessment of the land contamination risks and inform mitigation such as the need for pre-construction remediation and soil handling during construction.	The principal recommendation is for a contamination risk assessment to be undertaken to provide scheme wide information on soils and groundwater quality within the footprint of the proposed scheme. This should focus on areas of proposed excavations, earthworks and foundations. Whilst a geotechnical investigation has been undertaken in the new terminal area, this did not include tests for soil or groundwater contamination. Additionally, the investigation did not extend to the area of proposed relocation area for the VIP terminal. However, the investigation does provide useful information on the soil profile and has identified that there are no significant areas of fill/made ground in the areas investigated. The proposed steps are therefore as follows: • Review baseline study findings relating to contamination sources, proposed works and existing ground model from geotechnical investigations. • Undertake an intrusive ground investigation comprising the drilling of boreholes at an appropriate grid spacing (for example 50m to 75m spacing) in areas of proposed ground break, including the new terminal and car park ramp, relocated VIP terminal area and mechanical engineering building. • Boreholes drilled to a minimum of 3m depth to target shallow contamination. • Three boreholes in each area to be extended to target groundwater and be fitted with groundwater monitoring wells, ensuring that these wells do not link any discrete aquifers/groundwater bodies. • Post-fieldwork monitoring of wells.	In parallel with detailed design.	Project Sponsor

Additional study	Purpose	Detail of additional studies	Preparation phase	Responsibility
		• Soil and groundwater laboratory testing of retrieved samples for the contaminants of concern based upon the work contained in the ESIA. • Ground gas risk appears to be low but the investigation should consider local requirements relating to gas or vapour protection in buildings. • Risk assessment report to compare soil and groundwater quality to local and internationally recognised standards where local standards are not available. • Should any significant soil or groundwater contamination be recorded by the investigation then a remediation options appraisal and strategy should be completed to mitigate any identified unacceptable risks. The findings of the assessments should be used to update the CESMP and other related documents relating to waste management and soils re-use.		

4.1.1 Construction Environmental and Social Management Plan

The overarching CESMP will be prepared to provide guidance on ESHS management approach to be adopted by the EPC contractor and sub-contractors for all activities undertaken throughout the construction phase of the project (which shall be overseen by the Project Sponsor).

The CESMP details the control steps necessary to reduce ESHS impacts through the entire construction phase, identifying as a minimum:

- A description of the works;
- Regulatory requirements;
- Site organisation and management;
- Roles and responsibilities;
- Review, reporting and auditing procedures;
- Mitigation and protection measures;
- Monitoring requirements;
- Training requirements;
- Emergency response plans; and
- Method statements (where applicable).

The CESMP will be supplemented by various separate sub-plans and procedures (as detailed in Table 4.3 and Table 4.6) which will be developed to address key ESHS aspects identified during the ESIA process which will detail control procedures and define associated responsibilities for implementation. Table 4.4 meanwhile provides information on construction phase opportunities that are to be considered by the Project Sponsor at the pre-construction stage during detailed design, whilst Table 4.5 outlines the workers process and policies that will need to be established as part of the construction phase.

The EPC Contractor will develop the CESMP whilst the Project Sponsor will review and approve the document. The CESMP will also be shared with local authorities, as required. The EPC Contractor will comply with and implement the CESMP, although the Project Sponsor is ultimately responsible for its implementation in accordance with international requirements.

Operational Phase – Environmental and Social Management System

For the operational phase, an overarching ESMS will be prepared prior to operation of the Scheme in accordance with national legislation, standards and guidelines. The structure and objectives of the report will largely be the same as the CESMP. The Project Sponsor will be responsible for ensuring that the Scheme complies with mitigation measures outlined within this document for the operational phase.

Table 4.3: Plans and policies required for construction phase of the Scheme

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
Stormwater Management Plan	Manage stormwater flows to minimise the risk of flooding	The Stormwater Management Plan should detail the following as a minimum: • Measures to control and regulate any discharge from the site, including the need for permits, if applicable. • Measures to minimise any increase in stormwater runoff or snow melt from any new development. • Measures to reduce diffuse and point source pollution and control potentially hazardous substances from infiltrating the waterways.	Pre-construction	EPC Contractor	CESMP
Spill Response Plan	Minimise the impacts from spills of hazardous liquids	The Spill Response Plan should detail site specific actions to be followed in the event of a hazardous spill. The Plan should also include spill control techniques, locations of spill control equipment and materials, employee training log and spill log. The Plan may also include a map to illustrate locations of specialist spill kit, emergency contact numbers and the correct reporting procedure should a spill occur.	Pre-construction	EPC Contractor	CESMP
Construction Site Water Management Plan	This plan will identify measures to minimise the impact of the development upon water quality and the water environment.	The Site Water Management Plan should detail the site procedures to manage activity to minimise the risk of contamination during the construction phase. The following have been highlighted as options to alleviate the impact on surface water and groundwater quality at the site: • Spill prevention procedures • Handling and storage of materials • Storage and removal of waste • Use of the existing road network delivery of materials • Zoning for construction works within the site. • Strict prohibition of vehicle washing outside of the specially equipped places. • Minimising the creation of dust throughout construction activities. • Vegetate exposed surfaces.	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		Further details on water quality are required. As such a continuous monitoring regime for surface, groundwater, and wastewater quality should be implemented, with detailed records kept.			
Emergency Response Plan	To have a plan in place for when emergency situations occur at the airport during construction.	Consideration of the primary emergencies that would face the construction works. This would likely include: • Natural disasters, including earthquakes, flooding, and mudflows • Terrorist incident (or similar security issue) • Fire • Aircraft crash This should detail the different roles and responsibilities during emergency situations, the training required and what simulation exercises (if any) need to be run. The Emergency Response Plan will reference the Spill Response Plan for how to manage emergency spills during construction.	Pre-construction	EPC Contractor	CESMP
Hazardous Material Management Plan	To minimise the risks to people and the environment from hazardous materials	The Hazardous Material Management Plan should include a description of the correct procedures for storing, using, managing and disposing of hazardous materials in a safe manner.	Pre-construction	EPC Contractor	CESMP
Topsoil Management Plan	Managing topsoil during any works which require its removal	This plan should include detailed guidance for the management and use of topsoil during construction. The following should be included as a minimum: • Measures for any topsoil stripping and associated transport of material. • Measures for any re-use of recovered material on site (if applicable). • Locations where soils may be stockpiled on site. • A monitoring plan to measure topsoil quality and viability and determine final end use on site or suitability for disposal. • Measures to be implemented to protect topsoil quality and conserve function.	Pre-construction	EPC Contractor	CESMP
Ecological Management Plan	To outline the requirements of managing the site's operational activities in a way that protects and	This plan will include details on the potential impacts of construction activities on the site's ecology and biodiversity, and the proposed mitigation measures to be implemented to reduce the effects of these activities.	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
	enhances the biodiversity within and adjacent to the Scheme.	Details on specific mitigation measures for each activity will be provided within the CESMP.			
Air Quality Management Plan	This plan will identify the phases of the construction work and detail the key sources of emissions to air.	To mitigate against construction dust effects at sensitive receptors details to be provided on: • Minimising dust from material handling sources, such as conveyors and bins, by using covers and/or control equipment such as water suppressors • Minimising dust from open area sources, including storage piles, by using control measures such as installing enclosures and covers, and increasing the moisture content • Implementing dust suppression techniques on unpaved roads, such as applying water or non-toxic chemicals to minimize dust from vehicle movements • No bonfires and burning of waste materials shall be allowed • Planning land clearing, removal of topsoil and excess materials, location of haul roads, tips and stockpiles with due consideration to meteorological factors (e.g. precipitation, temperature, wind direction, and speed) and location of sensitive receptors • Designing, installing and applying a simple, linear layout for materials-handling operations to reduce the need for multiple transfer points • Compacting and periodically grading and maintaining roads • Vegetating exposed surfaces of stockpiled materials. Emissions from mobile sources (on-road, off-road vehicles and mobile crushers), will comply with national requirements and the following measures, adapted from the ESHS Guidelines for Air Emissions and Ambient Air Quality, will be considered: • Regardless of the size or type of vehicle, owners / operators will implement the manufacturer recommended engine maintenance programmes • Enforce a speed limit for Heavy Goods Vehicles (HGVs) on-site at 20km per hour • Drivers will be instructed on the benefits of driving practices that reduced both the risk of accidents and fuel consumption,	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		including measured acceleration and driving within safe speed limits • Enforce a 'no-idling' policy • Old construction vehicles will be replaced with newer more fuel-efficient alternatives where possible • Convert high use vehicles to cleaner fuels where possible • Install and maintain emission control devices such as catalytic convertors • Implement a regular vehicle maintenance and repair programme With regards to any generators used on site, consideration will be given to the location and height of exhaust pipes to ensure proper dispersion of pollutants. Generators used will be of a modern design and well-maintained to minimise air pollutant emissions. Managing the blending, packing, loading, unloading and use of bulk cement for batching plants, if required or construction, will also be necessary. The following best available techniques will be incorporated to help manage and control dust emissions from these activities: • Containment of dusty processes: containment and arrestment are the preferred option for control of emissions to air from processes handling cement • Suppression of dust using water or proprietary suppressants. Where water is used for dust suppression, processes require an adequate supply of water. To demonstrate an adequate water supply on tanks, a low-level alarm will be fitted. • Protection of external sources, such as stockpiles and external conveyors, from wind whipping is necessary. There are various methods that may be used to this end. Crushed rock, sand or coarse aggregate, can be delivered, stored and handled so as to minimise dust emissions, for example by dampening or covering. Daily visual inspections will be undertaken at construction areas across the site by a suitably qualified/experienced member of the construction team throughout the construction phase to monitor the implementation and effectiveness of prescribed mitigation measures.			
Noise and Vibration Management Plan	To describe the procedures to be	The Noise and Vibration Management Plan should provide details and measures to be followed to minimise the impact of noise and vibration	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
	adopted to minimise the impact of noise and vibration during construction of the Scheme.	during construction and operation phases. The plan should include specific details on: • Control measures required to manage noise and vibration from construction activities (restricting traffic to main roads away from communities, use of site hoardings, minimising night-time working, speed restrictions, etc.). • Mitigation measures to alleviate noise from fixed plant and other operational sources (screening plant, selecting modern models, silencers prime locations, etc.). • The implementation of Best Practical Means *('measures which are reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications')* to manage noise and vibration impacts. • Guidance and methodology to be adopted for noise monitoring and measurement, as required, as agreed with relevant local authorities. • A clear strategy to address public complaints effectively.			
Construction Traffic Management Plan	To define the requirements that will be implemented to mitigate any potential negative risks to the environment, workers or the community resulting from construction traffic.	The Construction Traffic Management Plan should provide information on the routes to be used by the construction vehicles. Consideration should be given to the possibility of using the railway siding located at the fuel farm to alleviate road transportation. Construction traffic should be restricted to the main roads; construction traffic should avoid local roads where possible. Proposed mitigation measures could include clear signage for construction vehicles (routes to use, entry points into construction site), limiting construction traffic during peak hours and training to be provided to drivers. The Construction Traffic Management Plan should include the following: • Prioritises the use of sustainable transport options where feasible, i.e. explore using the rail network to import material and export waste as much as is practical;	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		• Identifies the number of vehicles, and the highway routes and schedules that are expected to be used for the duration of the scheme (including night and day schedules); • Identifies appropriate dust and noise management measures; • Identifies appropriate dust management measures (tarpaulin use, speed restrictions, wheel washes, construction rumble grids, no use of horns or engine revving, use of banksperson etc.); and • Provides a clear mechanism for public complaints to be addressed effectively.			
Heritage Integration Plan	This plan will define the actions and measures necessary for the overall management of cultural heritage during the project construction phase for both the project beneficiary and contractors, in line with the applicable law and other obligations.	This plan will: • outline the key policies, legislation and standards relating to cultural heritage; • clearly define roles and responsibilities; • outline the actions and measures necessary for the effective management of risks and impacts to cultural heritage; • cover the management of both tangible and non-tangible cultural heritage; • detail the specific control measures to be implemented by the Project Sponsor and its contractors (and subcontractors) to achieve this; and • incorporate the requirements of the ESIA, international standards, Kazakhstani legislation, lenders requirements and the project-specific construction permits.	Pre-construction	Project Sponsor	CESMP
Chance Finds Procedure	Procedural instructions on how individuals and the site management team will respond to a chance find of any buried heritage during construction works. This will ensure that any heritage resources found at the site are not	During the period of the construction of the Scheme infrastructure which involves excavation, it is possible that chance archaeological finds will be encountered. A Chance Finds Procedure in line with the IFC Performance Standard 8: Cultural Heritage will be developed and implemented for all groundworks during construction. The relevant authorities will be consulted to ensure that the procedure is acceptable to them and that it complies with local and national regulations.	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
	adversely affected or disturbed.	If any unexpected finds are encountered during construction, the following mitigation approaches will be employed by the project: • work will be immediately stopped in the area; • the find(s) will be demarked and protected via fencing / blocking off and the appropriate site management will be contacted; • notification will be issued to the relevant authorities; and • further work at the site will not commence until the find has been examined by the relevant authority. In order to avoid potential damage to cultural property discovered during construction, workers must be trained. The plan will outline details on providing inductions and regular toolbox talks to ensure that contactors working on site are aware of the chance find procedures in place. Records should be kept of any induction and toolbox training delivered. Records should also be kept of any chance finds and action taken (including approval from the relevant authority that work can continue).			
Significant Fabric Assessment (for VIP terminal)	This assessment of the VIP terminal building will allow for a better understanding of the building features and inform potential best options for preservation and relocation of features.	This assessment of the VIP terminal building will include: • an analysis of the interior to include significance grading for all elements, layout and spaces; • a provision of heritage significance gradings for all exterior ornamentation in terms of integrity, intactness and tolerance for change; • the landscape design and plantings; and • confirmation of the heritage value of the stained glass windows. The assessment should provide identification of potential 'best candidates' based on condition, to be successfully relocated and restored within the new build.	Prior to finalisation of the design for the new VIP terminal	Project Sponsor	Any measures would be carried through into demolition and construction method statements
Construction Site Waste Management Plan	To identify the measures to minimise waste and the safe disposal of construction waste.	The Construction Site Waste Management Plan should detail the site procedures to manage construction waste, including hazardous waste. It should identify the quantities and categories of waste for processing, confirm the capacity of the local landfills and establish a processing plan for the hazardous waste.	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		More specifically, the management plan should include information on: • Purpose-built waste storage area and segregation of waste streams which will be implemented during construction. • The reuse of construction materials. • Management of the polychlorinated biphenyl (PCB) waste. • Type of waste expected during construction and estimated quantities. • Handling and storage of chemicals, lubricants, solvents, oil and fuel. While information on waste management during construction is provided in the CESMP (August 2020) prepared for the scheme, further details on construction waste management are required. The Construction Site Waste Management Plan should also provide information on the management of wastewater during construction – it is understood that the construction contractor will provide a separate wastewater facility and discharge will be tankered off site rather than in the existing wastewater treatment works.			
Contractor Management Plan	To provide clear information for contractors and their workers to understand and adhere to the Scheme's policies and workplace procedures.	The Contractor Management Plan (CMP) will cover the following: All contractors, sub-contractors and workers of contractors, engaged to perform work on behalf of the Scheme are required to comply with relevant legislation, health and safety policies, and procedures the Project Sponsor has in place. The CMP should be structured to include: • Introduction • Review Procedure • Document Control • Distribution Record Register • Amendment Record Register • References and Applicable Documents • References • Standards and Guidelines	Pre-construction	Project Sponsor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		• Contractor Management Policy • Contractor Management Procedure • Contractor Selection • Induction Training and Instructions • Contractor Evaluation Form • Contractor Register • Contractor Permit to Work Form • Contractor Spot Inspection Form CMP can be used as a stand-alone document or incorporated into the OHS Management System. The CMP should contain the embedded monitoring programme to monitor contractors labour-related and social performance during the contraction phase.			
Stakeholder Engagement Plan	To manage stakeholder interaction for the Scheme	The purpose of a Stakeholder Engagement Plan (SEP) is to manage stakeholder engagement activities for the lifetime of the project. The SEP is a live document which evolves as the project progresses. A continuous approach should be taken so that the SEP is reviewed periodically during implementation of the Scheme and updated as necessary prior to the Scheme major phases, any new or changed operations, modifications in the Scheme design or if new stakeholders are identified. The SEP has already been prepared at the preparation phase in line with the national law and applicable international requirements.	First update at the ESIA phase	Project Sponsor	ESIA disclosure package
Accommodation Plan	Ensure adequate and safe accommodation for non-local staff.	Information on the type of accommodation staff will be housed in, the minimum standards required of the accommodation (including for health and safety) and how staff will be transported safely from the accommodation to the work site. Consideration of the suitability of the accommodation for staff non-work time should be made. Details of who is responsible for organising the accommodation and alternatives if there are issues with the selected accommodation.	Pre-construction	EPC Contractor	CESMP
Community Grievance Mechanism	To have a process in place for managing community grievances.	The community grievance mechanism should address concerns promptly and effectively, in a transparent manner that is culturally appropriate and readily accessible to all segments of the affected communities, at no cost and without retribution. The grievance	ESIA disclosure	Project Sponsor EPC Contractor	SEP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		mechanism must not prevent access to judicial or administrative remedies. Handling of grievances should be done in a culturally appropriate manner and be discreet, objective, sensitive and responsive to the stakeholders' needs and concerns. The mechanism should also allow for anonymous complaints to be raised and addressed. The Scheme's grievance mechanism has been developed and included in the SEP. The Project Sponsor will inform the affected communities about the grievance process in the course of its community engagement activities, and report regularly to the public on its implementation, protecting the privacy of affected individuals.			
Grievance Management Plan	To have a procedure to address, manage, resolve and document community grievances in relation to the construction activities..	The Grievance Management Plan (GMP) should describe the scope, specify roles and responsibilities and detail the steps for the community grievance management process. The GMP will: • Establish a prompt, consistent and fair mechanism for receiving, investigating and responding to community grievances during construction • Ensure the proper documentation of grievances and any corrective actions taken • Contribute to continuous improvement in social performance through the analysis of trends and the preparation and dissemination of lessons learned. The GMP process should be communicated in an understandable manner to the adjacent communities. The GMP should respect confidentiality and take all reasonable steps to protect parties to the process from retaliation. The GMP should be reviewed and updated based on experience and feedback from communities, audit findings and lessons learned.	Pre-construction	EPC Contractor	CESMP
Construction Occupational Health and Safety (OHS) Plan (including specific prevention and control plans for	Minimise the risks to workers' health, safety and wellbeing from work activities on site.	Despite the OHS management system of the EPC Contractor being well-developed and based on examples of good industry practice, these guidelines need to be updated to consider national OHS requirements and included in the Project Method Statement in a form of the Construction OHS Plan envisaged by the national regulations. The OHS Plan will cover as minimum the following aspects:	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
pandemics including Covid-19)		• HSE coordination at the construction site and permit to work for contractors • Demolition safety requirements and asbestos handling • Confined space safety • Electrical safety • Vehicle safety and traffic management • Scaffold safety • Work at height safety • Excavation Safety • Crane rigging and lifting safety • Housekeeping, material transport, storage and handling safety • Control of chemicals • Hot work and welding safety • Fire safety • Personal protective equipment requirements • Food hygiene • Security aspects • COVID-19 Management Plan for the construction			

Table 4.4 Construction Carbon Opportunities

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
Construction carbon assessment	A construction carbon assessment in the early phases of the design to provide insight into the carbon hotpots of the airport, facilitating carbon reduction opportunities.	• It would be recommended to complete a high-level construction carbon assessment and set carbon reduction targets to monitor as the design progresses into later stages.	From early design to detailed design stages	Project Sponsor	Design logs

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
Low carbon opportunities workshop	The workshop will allow for low carbon opportunities to be discussed for inclusion in optioneering phases.	The recommendation is to deliver a workshop with key design and delivery partners, where opportunities for resource efficiency can be discussed. The outcomes of the workshop could be: • An overview of low carbon opportunities that were discussed • Confirmation on feasibility of options to be carried forward into design • Develop a plan to quantify the potential carbon savings	Outline design stage	Project Sponsor	Design logs

Table 4.5 Construction Worker Policies and Procedures

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
Statement on Workers' Rights	A policy statement to guarantee workers' human rights and right to decent work and protection against discrimination.	The Scheme's Statement on Workers' Rights should include but not be limited to: • Commitment for respecting human rights of all workers • Prohibition of child labour and forced labour • Prohibition of payments for recruitment or other fees to attain work on the Scheme • Willingness to collaborate with workers organisations • Non-discrimination and equal opportunity principles • Zero tolerance of on-the-job harassment and bullying • The Workers Statement of Workers' Rights should be disclosed to all staff of the Scheme as well as contractors and sub-contractors' workers.	Pre-construction	Project Sponsor	CESMP
Updated HR Policy and procedures	A policy statement to be updated in line with the international requirement for safeguarding the workforce.	The existing HR Policy should be updated to include provisions that: • Prohibit discrimination of any kind • Prohibit gender-based violence and harassment • Prohibit child and forced labour • Promote equal opportunities at workplace • Describe working relationship • Describe working conditions and terms of employment	Pre-construction	Project Sponsor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		• Promote workers' organisations • Establish a retrenchment process • Establish a workers' grievance mechanism • Promote occupational health and safety • Protect workers engaged by third parties • Supply chain This requirement to comply with the Project HR Policy should be included in contractors' contracts to ensure that contractors and subcontractors manage the workforce in accordance with national and international standards. This will especially help any foreign contractor(s) to understand what is required of them. Toolbox talks on the content of the Project HR Policy and its visibility on noticeboards at site will help workers to understand their rights and will maintain good Project performance on safeguarding the construction workforce.			
Recruitment Policy and procedures	A policy statement and procedures to manage the recruitment process for the Scheme.	The Project Recruitment Policy will be developed by the Project Sponsor for the construction phase and it will be updated for the operation phase. The Project Recruitment Policy should include but not be limited to the following: • Policy statement of the Project Sponsor commitment to meeting national law and international best practice with regards to recruitment and labour management including: – Non-discrimination and equal opportunities – Prohibition of child labour and forced labour – Prohibition of gender-based violence and harassment • A requirement to prioritise local employment for positions that become available: – First priority will be defined as people originating from the ACs in the immediate and wider SAoIs – Second priority will be defined as people from elsewhere in Kazakhstan • A requirement to prioritise employment of vulnerable groups, such as women, young adults, unemployed and unskilled. • Specific operation phase targets for employment and engagement of women	Pre-construction	Project Sponsor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		• Mechanism to identify people of the first, second and third priority for employment and employment procedure • Policy statement on the types and likely numbers of employment opportunities to be provided to the directly affected local people from the construction phase and from the operation phase of the Project including skills levels, indicative timeframes of recruitment, remuneration and benefits packages and likely duration of contracts • Description of the local recruitment processes including timely (at least one month prior to recruitment) disclosure of information bulletins about vacancies including notification of the local employment centres, and local Akimats. • The job application procedures for candidates. • Information about how job opportunities will be advertised in the directly affected communities, local employment centres and local Akimats to ensure equal opportunities for all local people The Project Sponsor will monitor compliance of the contractors with the Project Recruitment Policy during the construction phase.			
Project Procurement Policy and Procedure	To enhance procurement opportunities and share the Scheme's benefits with local suppliers and businesses.	The Procurement Policy should include statements covering health, safety and labour rights in the Scheme's supply chain in compliance with the applicable international requirements. A respective Procurement Procedure should be developed to include: • A requirement to disclose all procurement opportunities and advertise them locally (especially during the construction phase) to attract local suppliers and businesses • Definition of local suppliers and businesses and priority ('local' are suppliers and businesses originating from the immediate and wider SAoIs) • A requirement to prioritise local procurement: – First priority to be assigned to suppliers and businesses originating from the immediate and wider SAoIs – Second priority to be assigned to suppliers/businesses from other regions and Kazakhstan, in that order) • A requirement of communicating future demand with anticipated timeframes	Pre-construction	Project Sponsor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		• Simple tender procedures so it is easier for local companies to participate • A requirement for producing tender documents in local languages • A commitment to hold tender workshops locally to help in understanding of need and process • Lowering the price of tender documentation • Making prequalification efforts match the contract type and amount • Making price preferences for local firms • Unbundling contracts so that local entrepreneurial services can be tapped • Reserving a proportion of a contract value or a whole contract for local businesses to implement • Wavering or lowering the need for performance bonds Instructing, through contract clauses, the EPC Contractor to conduct a comprehensive demand-and-supply-side analysis to identify and quantify local contractors, sub-contractors and suppliers and engage local firms in the supply chain • Setting targets for engaging female-headed business			
Worker Code of Conduct	To govern the behaviour of construction workers on site and in the local communities.	A Workers' Code of Conduct should be developed for the Scheme workers by the EPC Contractor and checked by the Project Sponsor. The Workers' Code of Conduct will include but not be limited to: • Use of drugs, alcohol and smoking with information about testing and penalties for contravention • Rules regarding safe use of PPE and Project equipment including disciplinary procedures for inappropriate use • Maintaining a safe and tidy working area • Reporting of incidents and accidents • Respect for colleagues and behaviour expectations with regards to harassment and bullying • Respect for communities and lines of communication • Rules governing use of resources and utilities including power, water and the Internet • Cultural awareness issues for workers coming from outside of the wider area of influence (if applicable)	Pre-construction	EPC Contractor	CESMP

Plan title	Purpose	Minimum details to be included	Preparation phase	Responsibility	Measures contained in
		• Guidance about how to behave to prevent the spread of HIV/AIDS and other sexually transmitted diseases • Driving rules • Confidentiality of information • Rules for security guards • Ethics rules • Reporting of chance finds • Prohibition of weapons on site or in accommodation • Responsibilities of management. Workers should be issued with the Workers' Code of Conduct upon their recruitment and asked to sign to say that they have received and understand the document.			

Table 4.6: Plans and policies required for Operational phase of the Scheme

Plan title	Purpose	Details	Preparation phase	Responsibility	Measures contained in
Operation Water Management Plan	To present information on the management of water and water quality during operation	The Site Water Management Plan should detail the site procedures to manage activity to minimise the risk of contamination during operation. In addition to the points within the Stormwater Management Plan, the following have been highlighted as options to alleviate the impact on surface water and groundwater quality at the site: • Spill prevention procedures • Handling and storage of materials • Storage and removal of waste • Zoning for operational activity within the site. • Strict prohibition of vehicle washing, and de-icing outside of the specially equipped places. • Minimising the creation of dust throughout operational activities.	Post-TAV airport takeover	Project Sponsor	ESMS

Plan title	Purpose	Details	Preparation phase	Responsibility	Measures contained in
		Further details on water quality are required. As such, a continuous monitoring regime for surface, groundwater, and wastewater quality should be implemented, with detailed records kept.			
Emergency Response Plan	To have a plan in place for when emergency situations occur at the airport during operation.	Consideration of the primary emergencies that would face the operation of the airport. This would likely include: • Natural disasters, including earthquakes, flooding, and mudflows • Terrorist incident (or similar security issue) • Fire • Aircraft crash This should detail the different roles and responsibilities during emergency situations, the training required and what simulation exercises (if any) need to be run.	Pre-operation	Project Sponsor	ESMS
Grass Management Plan and Pesticides Management	To manage pesticide use in a way which minimises environmental pollution or contamination, and so that grassed areas balance the need to minimise interactions between wildlife and aircraft but also can provide a space for biodiversity improvement	This plan should include the following as a minimum: • Measures to protect, improve water quality and minimise pesticides from entering watercourses, such as buffer strips. • Details of the grassland cutting regime including timings, frequency and height of cutting. • A log of pesticide applications, to include quantities, chemicals used, frequency of application and locations of application. • Measures for weed control to manage biodiversity and maintain a diverse grassland sward.	Post-TAV airport takeover	Project Sponsor	ESMS
Operation Biodiversity Management Plan	To outline the biodiversity goals for the Scheme and the means by which they are to be achieved.	This plan will detail the goals for species and habitats on site during operation of the Scheme. This will include proposed enhancement opportunities for biodiversity on site and additional management and monitoring to ensure an increase in the value of the habitats on site for local species, and a decrease in the impacts of operational activities[5].	Post-TAV airport takeover	Project Sponsor	ESMS

[5] Monitoring of bird collision risk will not be included as a part of this plan as Almaty International Airport complete ongoing monitoring and recording of all bird strike incidents and bird activity across the site.

Plan title	Purpose	Details	Preparation phase	Responsibility	Measures contained in
		Specific details on the proposed management and enhancement measures will be outlined within the Operational Environmental and Social Management Plan.			
Operation Traffic Management Plan	To present information on the management of the traffic during the operation of the site.	The Operation Traffic Management Plan should provide information on the routes to be used to access the airport, signage to be put in place and any safety measures (e.g. speed limit) needed. The Operation Traffic Management Plan setting out the approach and commitment to reduce emissions associated with the passengers and airport staff. This should include but may not be limited to: • Details of new bus facility being proposed • Infrastructure to promote the use of electric vehicles should be included to promote the transition to low emission cars and busses and reduce impacts associated with passengers to and from the airport. • Provision for staff travel plans to promote vehicle sharing The structure of the Operation Traffic Management Plan could be the following: 1. Overview of the site 2. Roles and responsibilities 3. Current situation (baseline) 4. Likely impacts from operation on local traffic 5. Proposed mitigation measures 6. Proposed monitoring	Pre-operation for existing facilities, pre-operation for new terminal areas	Project Sponsor	ESMS
Emissions Control Plan	To minimise air emissions from airport operations	The Emissions Control Plan will outline measures for reducing and minimising activities that result in harmful emissions. These do not include landside transport as this will be covered by the Operational Traffic Management Plan. Measures that would form the Emissions Control Plan include: - Single engine operations for plane taxing around the airport	Post-TAV airport takeover	Project Sponsor	ESMS

Plan title	Purpose	Details	Preparation phase	Responsibility	Measures contained in
		- Use of low or no emission ground vehicles by the airport - Target a reduced APU usage in aircraft by at least 50% where possible - Ensure any combustion plant used are compliant with national and international emission limit values - Work with air traffic control and airlines to use reduced thrust take-off where possible.			
Noise and Vibration Management Plan	To describe the procedures to be adopted to minimise the impact of noise and vibration during the operation of the Scheme.	The Noise and Vibration Management Plan should provide details and measures to be followed to minimise the impact of noise and vibration during construction and operation phases. The plan should include specific details on: • Mitigation measures to alleviate noise from fixed plant and other operational sources (screening plant, selecting modern models, silencers prime locations, etc.). • The implementation of Best Practical Means *('measures which are reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications')* to manage noise and vibration impacts. • Guidance and methodology to be adopted for noise monitoring and measurement, as required, as agreed with relevant local authorities. • A clear strategy to address public complaints effectively.	Post-TAV airport takeover	Project Sponsor	ESMS
Operation Waste Management Plan	To present information on the management of waste during operation.	It is understood that the airport operates under an existing waste management plan (2017-2026). The Operation Waste Management Plan should consider the existing waste management plan and detail the site procedures to manage operation waste, including hazardous waste. It should identify: • the waste types and quantities expected; • the frequency and destination of collections; • the waste storage requirements as per Good International Industry Practice (GIIP);	Pre-operation for existing facilities, pre-operation for new terminal areas	Project Sponsor	ESMS

Plan title	Purpose	Details	Preparation phase	Responsibility	Measures contained in
		• a methodology to promote the use of waste segregation using the waste hierarchy; • a programme to promote and educate the public users of the airport on the importance of waste segregation; • a mechanism to ensure waste transfer notes are obtained and monitored; and • a management plan for hazardous waste removal off site to regulated treatment facilities, nationally and transboundary. The Operation Waste Management Plan should also provide information on the management of wastewater during operation – it is understood that the wastewater generated by the operation of the new terminal building will be treated on site in the existing WwTW as its current capacity (2,800m^3) is considered sufficient for future airport operations. It is also proposed the 'blue water' (wastewater from aircraft) continue to use the existing facilities and processes.			
Retrenchment Policy	A policy statement on the principles and commitments of the retrenchment process	The Retrenchment Policy should: • Recognise that the employees are the most important resource • Undertake a commitment of maintaining security of employment for all employees. • State that where circumstances (arising from economic, technical or organisational factors) make it necessary to reduce or change staffing levels, the retrenchment process will seek to avoid or minimise the need for compulsory redundancies. • Provide a formal framework for ensuring that redundancy is managed in a fair, consistent and constructive manner and is based on the principle of non-discrimination. • Outline the commitment to develop a Retrenchment Management Plan in line with national law and EBRD PR2 and IFC PS2 requirements. • Recognise that any retrenchment process will be undertaken in consultation with the recognised trade	Post-TAV airport takeover / when required	Project Sponsor	Standalone Retrenchment Policy

Plan title	Purpose	Details	Preparation phase	Responsibility	Measures contained in
		union organisation, affected employees, employment authorities and the government, where necessary. • Have a provision on collecting, managing and reporting on any workers grievances arising during the retrenchment process. • Recognise that it applies to all full-time and part-time employees and constitutes the key internal regulation in respect of redundancy matters.			
Retrenchment Management Plan	To manage the process of staff redundancy in a fair and transparent way with appropriate compensation.	Prior to implementing any collective dismissals, the Project Sponsor will carry out an analysis of alternatives to retrenchment and consider the possibility of internal transfer or other options first. If the analysis does not identify viable alternatives to retrenchment, a Retrenchment Management Plan should be developed and implemented to reduce the adverse impacts of retrenchment on workers. The Retrenchment Management Plan should be based on the principle of non-discrimination and reflect consultation with workers, their organisations (e.g. worker's unions), and, where appropriate, the employment authorities, social welfare authorities, and where relevant, local government, and comply with the collective bargaining agreement. The Retrenchment Management Plan should describe as follows: • Consideration of alternatives to retrenchment • Legislative framework and collective bargaining agreement • Information disclosure and consultation undertaken with employees and their organisations • Grievance mechanism • Retrenchment methods and procedures • Selection criteria • Number and schedule of dismissals, if unavoidable • Notice periods • Severance payments methodology and record of payments made	Post-TAV airport takeover / when required	Project Sponsor	Standalone Retrenchment Management Plan

Plan title	Purpose	Details	Preparation phase	Responsibility	Measures contained in
		• Offers of alternative employment or assistance in retraining efforts and job placements			
Confidential Workers Grievance Procedure	To manage sensitive complaints including on gender-based violence and sexual harassment (GBVH)	The Confidential Workers Grievance Procedure should: • Describe confidential grievance reporting mechanism • Describe referral and support systems for workers, including those working from home • Include options to report GBVH anonymously • Map formal services (healthcare, counselling) and informal resources (local workers' organisations, women's' organisations) to provide support to those who have experienced GBVH. The Confidential Workers Grievance Procedure should be communicated to all staff, including contractors' workers. Inductions should be provided to all employees and contractor(s)'s staff on GBVH requirements. Periodic mandatory training should be delivered to all HR and other relevant personnel on how to respond to allegations of GBVH in the workplace.	Post-TAV airport takeover	Project Sponsor	Standalone Confidential Workers Grievance Procedure

5 Monitoring and Reporting Requirements

5.1 Overview

Effective reporting and independent auditing are required for continual improvement. Performance monitoring, reporting and auditing will be carried out to ensure compliance with the requirements of the ESIA and this ESMP. The suggested scope and format of all reports proposed below will need to be agreed with the Lenders prior to these being produced, broken down by construction and operational phases.

5.2 Construction Activities: Internal Monitoring

The frequency of these activities and associated reporting will be undertaken as per the CESMP. The Project Sponsor should undertake a review of all the individual management plans, once per year or if an event triggers the update of a management plan.

5.2.1 Day to Day Monitoring

The EPC Contractor will undertake compliance monitoring of the sub-contractors environmental and social activities on a regular basis, proposed to be at least weekly. This will be carried out in accordance with the approved CESMP. It will include regular general environmental and social site walkovers to identify any H&S, labour-related or environmental concerns and ensure compliance. Any notes made during site visits are to be collated on a standard form and saved. This will include any actions that have been taken or that will be taken (if required).

Furthermore, the environmental and social capability across various construction teams should be developed to enable identified team members to be able to recognise and report environmental and social issues beyond general awareness or labour performance and job-specific issues that would form part of the standard E&S training; these would be reported to the site environment and social management team. This system provides more staff able to note day to day issues.

5.2.2 Monthly Reporting

This section represents a framework of what the monthly reporting is likely to include, but the details are to be agreed between the Project Sponsor, EPC Contactor and the Lenders.

The EPC Contractor ESHS team will provide the necessary information for the Project Sponsor to prepare a monthly report to share with the Lenders during construction. These monthly reports should include information on the following:

- Information on the progress with the Scheme, main achievements and challenges of the month ahead.
- Progress in implementing the CESMP and the individual management plans.
- Incidents and accidents, number of staff working on site (including sub-contractors) and security/H&S statistics.
- Labour performance including all construction contractors. The labour performance reporting template is proposed in Appendix A and should be reviewed and agreed with the Lenders. All construction contractors will report on their labour performance using the agreed reporting template.

- Social activities and statistics on complaints received. This should also include information on the actions taken to address the complaints raised.
- Environment activities and statistics on environmental incidents. This should also include actions taken or measures to be put in place to address any non-conformities noted on site.
- Outstanding non-compliance reports and their proposed close-out dates.
- Summary of any complaints by external bodies and actions taken/to be taken.
- Any breaches of the acceptable standards specified by law/construction permits and/or the CESMP, using a non-compliance report.
- List of sub-contractors.
- Update on programme of activities.
- Information on permits, quality assurance, other relevant contractual information.
- Relevant changes or possible changes in legislation, regulations, and international practices.

As part of the project ESAP, the Lenders have outlined the requirement of monthly updates to them of progress against implementation of the ESMP during the construction phase.

5.2.3 Six-monthly Reporting

The Project Sponsor will produce reports every six months, as agreed with the Lenders. These are comprehensive reports on the environmental and social performance of its facilities and operations related to the Scheme and the implementation of the ESMP. They will include a summary of key E&S aspects during the reporting period, action plan status and update, deviations/non-compliance and feedback.

The Project Sponsor will ensure that all the necessary reports are produced and submitted to Lenders in a timely fashion in order to achieve on-going regulatory compliance.

5.2.4 Environmental and Social Baseline Monitoring

The Project Sponsor should ensure environmental monitoring requirements are met in the form of an overarching Environmental Monitoring Programme, as part of the ESMS.

In line with the environmental and social effects identified within the ESIA, and to be in accordance with the project ESAP, monitoring of the environmental and social baseline is a requirement of the mitigation that has been identified. This will ensure that the management measures that have been identified in Chapter 4 for the construction phase of the Scheme are working.

Where monitoring identifies exceedances in the standards that are being applied, then environment and social management measures need to be reviewed for their effectiveness. Changes would be made to these management measures or to construction practices to ensure compliance with the standards.

Table 5.1 outlines the minimum construction phase environmental and social monitoring regime, including responsible parties, frequency of monitoring, and potential actions in the event of an exceedance.

5.3 Operational Activities: Internal Monitoring

During the operational phase, monitoring and reporting are important to ensure the continued implementation of the ESMS; however, monitoring and reporting is typically less frequent than during the construction phase.

The Project Sponsor will undertake regular environmental, social and health & safety site visits. Notes from these site visits should be sent to the ESHS Manager.

The Project Sponsor should prepare a report at least every six months on the activities for the Lenders. The report should include the following information:

- Information on progress, main achievements and challenges.
- Progress in implementing the ESMS and the individual management plans.
- Incidents and accidents, number of staff working on site (including sub-contractors) and security/H&S statistics.
- Social activities and statistics on complaints received. This should also include information on the actions taken to address the complaints raised.
- Environment activities and statistics on environmental incidents. This should also include actions taken or measures to be put in place to address any non-compliance noted on site.
- List of sub-contractors.
- Update on programme of activities.
- Information on permits, quality assurance, other relevant contractual information.

Reviews of all the individual management plans will be undertaken by the Project Sponsor at least once per year, or if an event triggers the update of a management plan.

A register of all necessary external stakeholders, including regulatory reporting requirements, will be listed within the ESMS. The frequency of reporting, format and minimum content along with the person responsible will be contained in the register as agreed with Lenders.

The Project Sponsor will ensure that all the necessary reports are produced and submitted in a timely fashion in order to achieve on-going regulatory compliance throughout the life of the Scheme.

5.3.1 Environmental and Social Baseline Monitoring

The Project Sponsor will undertake land acquisition and land use monitoring in the regulated sanitary protection zone (SPZ), future public safety areas/zones (PSAs/PSZs) and aviation safety zone (ASZ). The land use monitoring would be agreed with the Lender and will include monitoring of the items described in Table 5.2.

The Project Sponsor should also ensure other environmental and social monitoring requirements are met. The environmental and social monitoring will be agreed with the Lender and will include monitoring of the items described in Table 5.2 (in addition to items identified as part of the project ESAP). This will ensure that the management measures that have been identified in Chapter 4 for the construction phase of the Scheme are working.

Where monitoring identifies exceedances in the standards that are being applied, then environment and social management measures need to be reviewed for their effectiveness. Changes would be made to these management measures or to construction practices to ensure compliance with the standards.

In addition, monitoring will be required to confirm compliance with permits/licence conditions, national regulations, and international guidance.

The ESMS will include full details of project monitoring requirements, including frequency and location.

Table 5.1 Construction Phase E&S Monitoring

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Response to Non-Conformity	Location	Frequency and Duration	Responsible Party
Water Environment	Water Quality Monitoring Regime	Operational monitoring is proposed which is assumed to take effect for the operational airport prior to the main phase of construction works. The operational monitoring activities and schedule outlined in Table 5.2 should be continued throughout the construction phase to ensure that any contamination resulting from construction activities is identified. Contractors should record the location and substances involved in all accidental spillages or incidents, and report this to the EPC contractor.	Should significant water contamination be recorded then a remediation options appraisal and strategy should be completed to mitigate any identified unacceptable risks.	Sampling should be undertaken at the locations outlined in Table 5.2. In addition, a temporary borehole will be opened for the construction works for monitoring.	Focus should be on rainy days such as: the first rainy day in a given month, the first rainy day after a spillage, and at least one day in a month even if it is a dry month, throughout construction.	Project Sponsor (for monitoring) EPC Contractor (for managing spillage records and incidents, and for opening the temporary borehole for monitoring by the Project Sponsor)
Soils and Geology	Site Investigation Groundwater Monitoring	The monitoring regime should include groundwater monitoring wells fitted in at least three of the site investigation boreholes. It is assumed that wells are available for longer term monitoring over the entire construction duration and therefore these wells should be located outside of the footprint of the buildings. Monitoring should comprise[6]: • Heavy metals and metalloids including; arsenic, cadmium, copper, chromium (III and VI), lead, mercury, nickel, selenium, zinc). • pH, dissolved organic carbon, ammoniacal nitrogen, suspended solids. • TPH. • PAH. • PCB – in the vicinity of electrical substations or equipment. • VOC	Should significant groundwater contamination be recorded then a remediation options appraisal and strategy should be completed to mitigate any identified unacceptable risks.	Areas of proposed ground break.	Once installed remain in situ for the entire construction duration.	EPC Contractor

[6] The final list of items to be monitored is dependent on local laboratory capability, and this final list will be agreed with lenders.

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Response to Non-Conformity	Location	Frequency and Duration	Responsible Party
		• Pesticides/herbicides. • PFAS -airside or where firefighting foams are used • De-icing suite including: urea, ethylene, propylene glycol based fluids, sodium acetate, potassium acetate, sodium formate, potassium formate.				
Air Quality	Construction emissions and particulate matter	Monitoring during construction will be required to ensure the measures outlined in the ESIA and CEMP are implemented. This will consist of daily visual inspections by a member of the construction team. The following key parameters are to be monitored during construction: • NO_2 • PM_{10} • $PM_{2.5}$	Cease activities until appropriate mitigation can be applied to ensure activities are compliant.	All construction areas	Daily monitoring throughout construction	EPC Contractor
Noise and Vibration	Continuous environmental noise monitoring	The regime will include monitoring of potentially noisy activities to ensure compliance with IFC and BS 5228 guideline levels during construction. Monitoring will be in line with the Noise Management Plan.	Cease activities until appropriate noise mitigation can be applied to ensure activities are compliant with IFC and BS 5228.	All construction areas	Daily monitoring throughout construction.	EPC Contractor
Labour and OHS	Labour performance monitoring	Monthly monitoring of EPC Contractor labour performance including all construction contractors. Monitoring will include: • Workforce information • HR management • Grievance management • OHS management and risks control measures • Workers' accommodation management • COVID-19 management	Cease activities until appropriate health and safety risks control measures will be approved by the Safety officer and implemented Provide COVID – 19 tests and quarantine facilities. Ensure negative test results before approval to work after disease or quarantine	All construction sites	Monthly monitoring throughout construction. COVID – 19 daily monitoring	Project Sponsor
Community Grievances	Community grievance monitoring	Monthly monitoring of EPC Contractor community grievance management, including all construction contractors. Monitoring will include • Number of grievances raised by local communities during construction	All grievances that relate to the direct impacts of the construction activities on the local communities shall be considered immediately. Any works that raised grievances shall be stopped and mitigation applied	All construction sites	Monthly	Project Sponsor

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Response to Non-Conformity	Location	Frequency and Duration	Responsible Party
		• Summary of types of grievances raised by communities (environmental issues, disturbance, etc.) and how they have been resolved • % of grievances resolved • % of grievances unresolved • % of grievances abandoned	before works restart. Report to the Project Sponsor on implemented mitigation measures and any reoccurrence.			
Heritage	Watching brief of the VIP terminal works	The regime will include monitoring, by an international and locally qualified heritage expert, for any movement and rebuild of the heritage building. The heritage expert should monitor rebuilding of the component parts and their relocation, to ensure quality assurance is maintained during the relocation process.	Cease activities until appropriate actions are identified by the heritage expert.	VIP terminal	Daily monitoring during moving and re-build.	Project Sponsor

Table 5.2 Operational Phase E&S Monitoring

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Potential Response in Event of Exceedance	Location	Frequency and Duration	Responsible Party
Water Environment	Water Quality Monitoring Regime	Monitoring regime should be sufficient to establish the water quality baseline, with targeted compounds and chemicals specific to the operations on site. Future monitoring should seek to ensure no deterioration in water quality. Monitoring will comprise: • Mains supply checks for water quality entering/within the airport. • Testing of treated wastewater prior to reuse. • Establish a monitoring regime to target surface water runoff, which focusses on rainy days such as: the first rainy day in a given month, the first rainy day after a spillage, and at least one day in a month even if it is a dry month. • Groundwater quality is to be monitored at regular agreed intervals by taking samples from previously sampled points. Additional monitoring locations should be added where there are gaps in airport coverage.	Should significant water contamination be recorded then a remediation options appraisal and strategy should be completed to mitigate any identified unacceptable risks. This could include removal of water via wastewater tanker to a treatment facility, or appropriate disposal of affected sediment.	Sampling should be undertaken at the following locations: WwTP storage tanks Runway drainage sediment trap Drainage ditch which the runway discharges into (upstream and downstream of discharge point	Monitoring throughout operational lifetime. Focus should be on rainy days such as: the first rainy day in a given month, the first rainy day after a spillage, and at least one day in a month even if it is a	Project Sponsor

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Potential Response in Event of Exceedance	Location	Frequency and Duration	Responsible Party
		• The regime must be in line the EU Directive on Urban Wastewater Treatment. As a minimum should include[7]: – Heavy metals and metalloids including: arsenic, cadmium, copper, chromium (III and IV), lead, mercury, nickel, selenium, zinc. – pH and dissolved organic carbon – Total petroleum hydrocarbons (TPHs) – Polyaromatic hydrocarbons (PAHs) – Polychlorinated biphenols (PCBs) – Volatile Organic Compounds (VOCs) – Per and polyfluroalkyl substances (PFAS) – De-icing suite including: urea, ethylene, propylene glycol based fluids, sodium acetate, potassium acetate, sodium formate, potassium formate. – Asbestos. – Fire-fighting foam.		Kotur-Bulak River (upstream and downstream of culvert) Groundwater wells	dry month, throughout construction.	
Air Quality	Air emissions from airport operations	Monitoring during operation will be required to ensure the measures outlined in the operational traffic management plan and emissions control plan are implemented. As a minimum a detailed emission inventory will be developed, broken down into Air Traffic Movements (ATMs), Auxiliary Power Units (APUs) and Ground Service Equipment (GSE). Monitoring of compliance against this inventory should include checks for the following, and included within an air quality monitoring plan: • Limited run times on APUs • Provision of airside electric charging to facilitate transition to electric GSEs • Requirement of reduced thrust take offs, where applicable • Reduced engine run taxiing	Cease activities until appropriate mitigation can be applied to ensure activities are compliant.	Fixed plant on site, airport apron	Monitoring throughout operational lifetime.	Project Sponsor

[7] The final list of items to be monitored is dependent on local laboratory capability, and this final list will be agreed with lenders.

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Potential Response in Event of Exceedance	Location	Frequency and Duration	Responsible Party
		• Optimisation of service infrastructure to reduced aircraft and ground vehicle movements • Selecting cleaner fuels for firefighting drills The following key parameters are recommended to be monitored during operation: • NO_2 • PM_{10} • $PM_{2.5}$				
Noise and Vibration	Noise pollution from airport operations	The regime will include monitoring of potentially noisy activities to ensure compliance with IFC and BS 5228 guideline levels during construction. Monitoring should be in line with the Noise Management Plan.	Cease activities until appropriate noise mitigation can be applied to ensure activities are compliant with IFC and BS 5228.	Fixed plant on site	Monitoring throughout operational lifetime.	Project Sponsor
Land acquisition and land use	Land acquisition and land use monitoring	Monitoring of land acquisition, land use and properties at-risk within the regulated zones: • Sanitary protection zone (existing properties and permitting for the new properties) – to avoid new residential buildings within the regulated SPZ and identify potential relocation risks and all properties at risk • Public safety areas/zones (future development and land use within PSAs/PSZs must be limited or not allowed) – monitoring of land plots identified in the TYPSA report • Aviation safety zone (existing properties lacking aviation safety permit, existing and future land use to be in line with aviation safety permitting) – to avoid non-permitted buildings, facilities and land use within the regulated ASZ. • A monitoring plan for these is to be developed, which will include consideration of properties which have been identified as being specifically at-risk (such as four properties within the ASZ area which are understood to not be in compliance with their permits).	Should a decision on land acquisition and/or relocation of the affected households / land users from any of the regulated zones around the ALA be taken by the Regulator/Government, EBRD PR5 and IFC PS5 will be triggered meaning that a Livelihood Restoration Plan (LRP) or Resettlement Action Plan (RAP) must be developed in compliance with EBRD and IFC requirements as well as policies and principles set out in the LARF, including impact assessment and census of the PAPs, consultation and disclosure, grievance	Areas located within the zones	During the period of zone establishment and for any period that resettlement may be required	Project Sponsor

ESIA Topic	Monitoring Activity	Monitoring Description and Standards Applied	Potential Response in Event of Exceedance	Location	Frequency and Duration	Responsible Party
			mechanism, reporting and monitoring.			
Labour and OHS	Monitoring of OHS hazards and risks and control measures in place	OHS monitoring should ensure all hazards and risks are managed in line with management plan and national requirements. New constructions, facilities, processes, operations and substances should be assessed within the OHS management system. Control and monitoring measures should be identified and included into the hazards and risks list and management plan	All unsafe works should be stopped until Safety Officer approval of appropriate control measure. State labour monitoring (in line with labour authority audits plan)	All airport and airdrome territory	Daily	Project Sponsor
Traffic	Monitoring change in vehicle numbers of nearby roads to the airport	The monitoring regime should ensure compliance with the Operational Traffic Management Plan, to monitor traffic movements and vehicle numbers. Monitoring will be undertaken and results provided to the Almaty City authorities to review the need for upgrades to the local transport network.	To be determined by future Traffic Management Plan	Key access roads to the Airport including Mailin Street and Ulitsa Bukhtarminskaya.	Commencing five years following operation	Project Sponsor

5.4 Independent Auditing

The Lenders will be accountable for arranging independent auditing of the Scheme. This is considered to be required given the IFC Performance Standards guidance notes state that projects require an independent environmental and/or a social expert to verify project monitoring information. This will also be a requirement of the certified ESMS. It is recommended that the independent audit takes at least place every quarter over the construction period and every six months during the first years of operation.

The key objectives of the independent audits will be as follows:

- The practical implementation of the ESMP and ESMS, including progress since the previous visit/review; and
- Feasible improvement objectives for completion before the next visit/review.

These audits will be used to re-examine the continued appropriateness of the ESMP and ESMS, and also to provide advice on any updates required. Attention will be given to lessons learned in the light of experience. In particular, consideration will be given to the implementation of the management plans and monitoring programmes.

These audits will consider all the environmental issues that form part of the ESMP and ESMS in both construction and operation phases. Of likely particular importance will be:

- Waste management;
- Storage of chemicals and hazardous materials;
- Air quality;
- Noise and vibration;
- Water and groundwater monitoring;
- VIP terminal heritage monitoring; and
- Biodiversity.

Auditing social issues will also be important, especially regarding worker management, workers' terms and conditions, occupational health and safety, and grievances. The audit will need to verify that the Scheme commitments to worker's rights are implemented, with particular regards to:

- Use of child labour;
- Payment of minimum wages and overtime;
- Not taking any action to prevent employees from exercising their right of association and their right to organise and bargain collectively;
- Ensuring no workers are charged fees to gain employment on the Scheme;
- Implementation of plans, procedures and training for occupational health and safety;
- Non-discrimination and equal opportunity;
- Use of the labour grievance mechanism;
- The existence of human resource policies, job descriptions, written contracts;
- Provision of information to labour force regarding rights and working conditions; and
- Sufficiency of employee training activities.

Appendices

A. Monthly Labour Performance Reporting Toolkit for Contractors

General requirements

The EPC Contractor will use the proposed templated reporting forms to receive information and monitor labour performance and will instruct all construction contractors to use this template in their labour performance reporting. The EPC Contractor should ensure that EBRD PR2/IFC PS2 labour requirements are met for all workers on site, not just their own employees.

The Project Sponsor and the EPC Contractor will review, modify as necessary and agree the reporting template with the Lenders based on the labour rights issues they are confronted with and mandatory reporting requirements resulting from the Environmental and Social Action Plan as well as other commitments in labour reporting that may arise as the Project progresses.

The EPC Contractor and all construction contractors should keep sex-disaggregated data.

Any instance of a severe infringement of labour standards must be reported immediately to the Project Sponsor. Instances of such severity are:

- Occurrence of fatalities, serious or permanent injuries
- Instances of forced labour
- Instances of child labour
- Occurrence of strike(s)

Reporting templated forms

A.1.1 Form 1 – EPC Contractor information

Information	Response
EPC Contractor name:	
EPC Contractor address:	
EPC Contractor representative responsible for human resources (HR):	Name: Title: Telephone: Mobile: E-mail:
EPC Contractor representative responsible for occupational health and safety (OHS):	Name: Title: Telephone: Mobile: E-mail:

A.1.2 Form 2 – Site information

Information	Response
Site location:	
Expected peak construction phase:	

Information	Response
Expected workforce:	

A.1.3 Form 3 – Sub-contractor information (for each sub-contractor)

Information	Response
Name:	Please provide information on all subcontractors engaged in the Project
Staff responsible for sub-contractor engagement:	Name: Title: Telephone: Mobile: E-mail:
Activities performed by the sub-contractor:	
Number of workers employed by the sub-contractor:	
Subcontractor HR representative:	Name: Title: Telephone: Mobile: E-mail:
Subcontractor OHS representative:	Name: Title: Telephone: Mobile: E-mail:
Labour policies covering sub-contracted workers	Please attach as evidence
OHS policies covering sub-contracted workers	Please attach as evidence
Copy of contractual clauses used in contracts with subcontractors related to labour and health and safety	Please attach as evidence

A.1.4 Form 4 – Workforce information

Worker information	Male	Female	Total
Number of permanent employees			
Number of temporary employees			
Number of subcontractor workers			
Number of workers provided by employment centres			
Number of day / casual workers employed in reporting period			
Number of workers from local communities			
Number of foreign workers			
Number of skilled workers			
Number of unskilled workers			
Number of unskilled workers trained			
Number of workers from other regions within the country			
Number of workers below the age of 18			
Number of workers above the age of 60			

A.1.5 Form 5 – HR management

Information	Response
Number of HR personnel employed:	Please name and provide job title
HR policy / policies:	Please list here and attach as evidence
Labour management plans and procedures in place:	Please list here and attach as evidence
% of workers with individual contracts of employment:	
Hours worked per worker / week:	

A.1.6 Form 6 – Grievance management

Information	Response
Number of grievances raised by workers in reporting period	
Summary of types of grievances raised by workers and how they have been resolved	Please provide details of the complaints how the complaints have been resolved
No. of complaints related to gender based violence and harassment	Please provide details of these complaints and how they have been resolved (DO NOT share information about the victim or alleged perpetrator here)
No. of reported instances of delayed or unpaid wages	Please provide details of these complaints and how they have been resolved
No. of reported instances of excessive hours / overtime	Please provide details of these complaints and how they have been resolved
No. of reported instances of unpaid overtime premia	Please provide details of these complaints and how they have been resolved
No. of reported instances of poor-quality housing and sanitary facilities / amenities	Please provide details of these complaints and how they have been resolved
% of grievances resolved	

A.1.7 Form 7 – OHS management

Information	Response
List of hazardous jobs on the site	Please list and describe hazards for each
Measures in place to reduce hazards for each hazardous job	Please list
Procedures in place on chemical storage and handling	Please attach as evidence
Procedures in place to ensure safe PPE	Please attach as evidence
Procedures in place for risk assessment	Please attach as evidence
No. of fatal accidents	
No. of first aid cases	
No. of qualified Health and Safety Managers	
No. of sick days	
No. of OHS inductions / trainings	
No. of ‘Toolbox Talks’ (regular, short presentation to the workforce on a single aspect of health and safety)	Please list topics
No. of OHS inspections	

A.1.8 Form 8 – Workers' accommodation management

Information	Response
No. of Accommodation Managers employed	Please name
No. of workers living in rented accommodation	
Rented accommodation details	
No. of workers on site living in employer-provided accommodation	Please provide details of the rented accommodation
How many workers are living in each room, and how much space is there per worker	Please list all rooms, the numbers of workers in them, and m^2 per worker in these rooms
How many workers are there per toilet in the accommodation	
How many showers are there per worker in the accommodation	
No. of grievances received on worker accommodation	Please also provide details of the complaints how the complaints have been resolved
Procedures in place for monitoring worker accommodation	Please attach as evidence
Number of worker accommodation sites that are critical risk	Please use the worker accommodation inspection form to help determine whether the accommodation site is a critical risk. Also attach the inspection form her if the inspection has been carried out.

A.1.9 Form 9 – COVID-19 management

Information	Response
No. of tests Covid-19 tests carried out on workers	
No. of identified Covid-19 cases	
No. of suspected Covid-19 cases	
No. of sick days due to Covid-19 (full-time equivalent person-days – FTE)	
Measures in place to reduce Covid-19 transmission risks in the workplace	
Measures in place to reduce Covid-19 transmission risks in accommodation	
No. of Covid-19 trainings and awareness raising sessions	

A.1.10 Form 10 – Declaration

I certify that the data contained in this report completely and accurately represents operations during this reporting period.

Name:

Signature:

Date:

mottmac.com