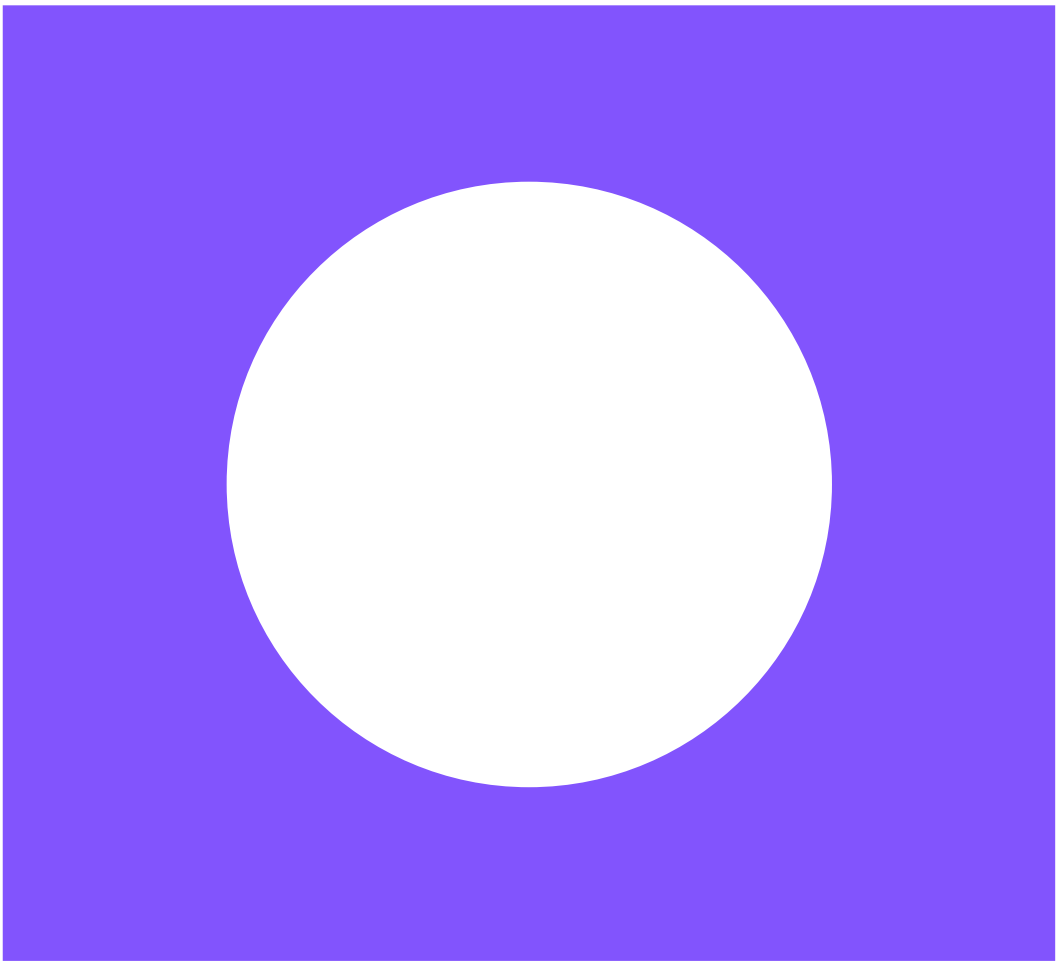
MOTT MACDONALD



Almaty International Airport

ESIA Non-Technical Summary

October 2025

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Almaty International Airport

ESIA Non-Technical Summary

October 2025

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Introduction

Almaty International Airport (ALA) is proposing several upgrades to existing airport facilities and the construction of new facilities predominantly within land owned by the airport. This is known as Project Horizon (the 'Project').

To understand the impacts of the Project on the environment and people in the area around the airport, an Environmental and Social Impact Assessment (ESIA) has been undertaken by Mott MacDonald, supported by EcoSocio Analysts LLC, a specialist environmental and social consultancy based in Almaty, on behalf of ALA.

The ESIA assesses what the Project's environmental and social impacts are likely to be, and outlines mitigation measures that the Project needs to include to reduce potentially negative effects. This summary document uses non-technical language to present the findings of the ESIA. The main ESIA report should be referred to for full information regarding the assessments.

Finance for the Project is being sought from the International Finance Corporation (IFC), the European Bank for Reconstruction and Development (EBRD), Deutsche Investitions - und Entwicklungsgesellschaft (DEG), and the Eurasian Development Bank (EDB). As such, their international standards and requirements have been followed for the assessments.

Construction works for the Project are expected to be undertaken by several engineering, procurement and construction (EPC) contractors, between 2025-2028.

Location

The airport is located approximately 12km to the north-east of central Almaty. It is bordered by a mix of open land and residential settlements. The airport is located north of the settlement of Guldala, and north-east of other city districts, including Tbilisskaya and Kolhozshy. The neighbourhoods of Almerek and Panfilovo are situated to the north-east of the airport.

The Project

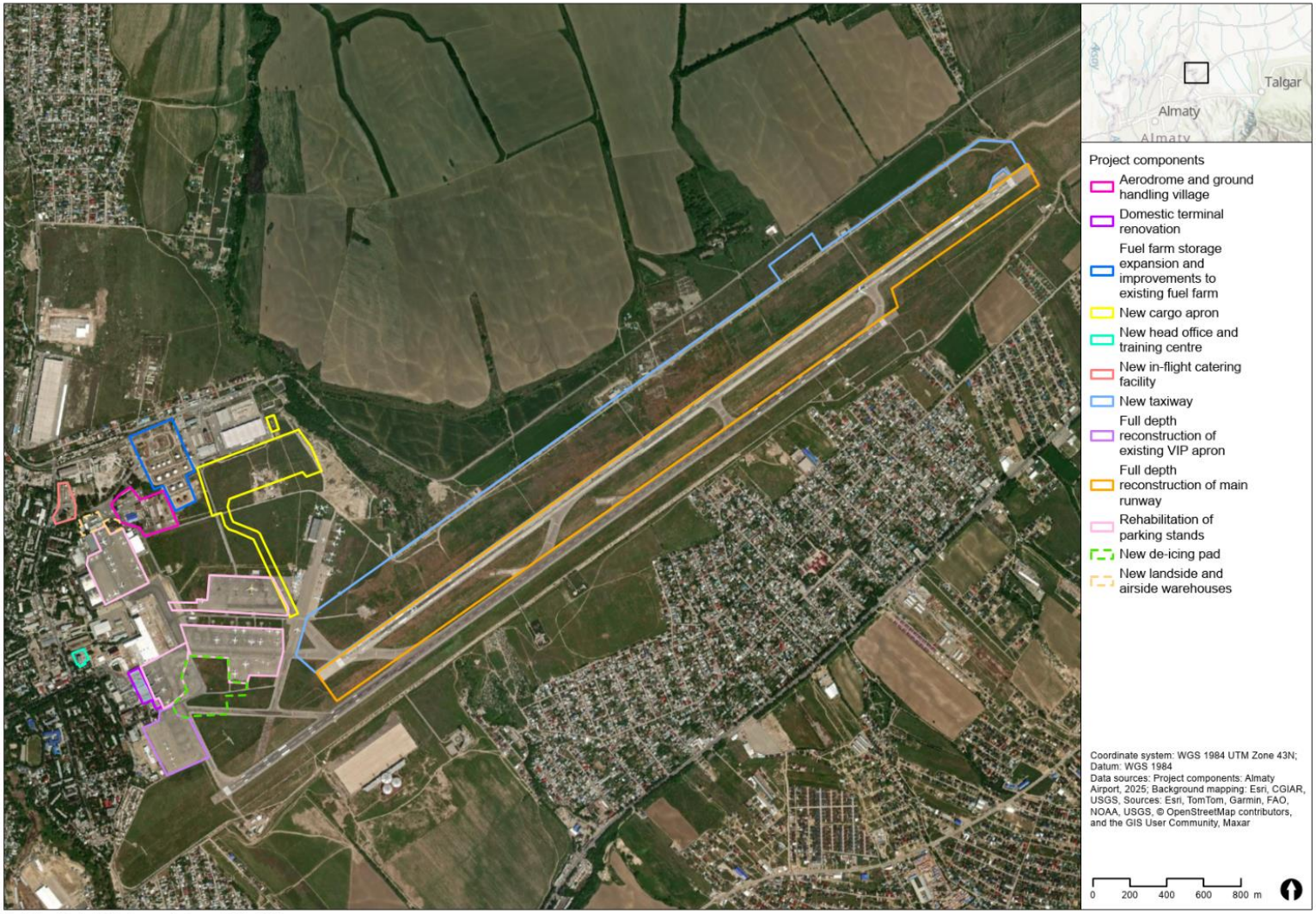
ALA is the busiest international airport in Kazakhstan, handling over 11 million passengers in 2024. The airport currently consists of two runways, associated taxiways, domestic and international terminals, a VIP building, a fuel farm, and other auxiliary facilities.

ALA serves more than 35 airlines, and its total traffic has experienced strong growth since 2005, including a steady and substantial increase in air traffic numbers in recent years. This trend is putting pressure on existing infrastructure and services. Without the Project, future growth will be constrained due to limitations in key infrastructure, such as the aprons, runway, taxiway, fuel farm, and domestic terminal.

The Project aims to expand and upgrade key infrastructure at the airport to ensure that capacity aligns with current and future demand, while maintaining service quality. Project Horizon also seeks to improve environmental protection equipment and systems at the airport, reinforcing its commitment to sustainability and regulatory compliance. The Project components are:

- Full depth reconstruction of main runway
- New taxiway
- New cargo apron
- Full depth reconstruction of existing VIP apron
- New de-icing pad
- Rehabilitation of parking stands
- New in-flight catering facility
- Fuel farm storage expansion and improvements to existing fuel farm
- Domestic terminal (T1) renovation
- Drainage and wastewater treatment
- New head office and training centre
- Aerodrome and ground handling village
- New landside and airside warehouses
- Other improvements

Figure 1: Project components



Almaty Airport Scoping | Project components - Imagery | 21 Aug 2025

The assessment

The ESIA for the Project has been undertaken to comply with international best practice guidance for the development of international ESIAs (in particular the IFC Performance Standards (PSs) and the EBRD Environmental and Social Requirements (ESRs)).

The ESIA has taken into consideration the existing environmental and social conditions and how this may change due to the Project. The assessment also identified measures that can be used to reduce the effects that these changes may have, known as ‘mitigation’.

The Project is located within the existing operational airport boundary, with limited exceptions, including the new head office and training centre and a small parcel as part of the new taxiway, and no additional land acquisition is required for the development of Project Horizon. A Land Acquisition and Resettlement Framework (LARF) was prepared previously and remains applicable to the Project Horizon. Should any land acquisition be required in future, a Resettlement Plan will need to be prepared and implemented in line with the provisions of the LARF and aligned with lenders’ policy requirements.

Assessment topics

The assessment has been broken down by topic to reflect the scope of the ESIA, developed in consultation with key stakeholders. These topics are as follows:

- Air quality
- Biodiversity
- Climate resilience
- Community
- Geology and soils
- Greenhouse gases
- Noise
- Traffic and transport
- Waste and resources
- Water resources
- Workers

Air Quality

An assessment has been undertaken to consider the potential air quality effects for the construction and operational phases of the Project.

During construction, there will be impacts on air quality as a result of dust generated from construction activities, which would impact nearby people or places that might be sensitive to air pollution. Measures will be implemented to manage these impacts, including minimising dust from on-site sources, using dust suppression techniques, limiting dusty processes, etc. There will also be impacts from emissions from mobile sources (on-road and off-road vehicles) and generators, however these are considered to be negligible.

During the operation of the Project, there is an expected increase in operational traffic (air and road), which will result in an increase in pollutant concentrations for nearby receptors that might be sensitive to air pollution. To manage these impacts, a strategy will be developed and implemented to reduce emissions associated with increased operational traffic. There will also be an increase in emissions from airport activities on airport workers and on receptors located in nearby villages, however these are considered to be negligible.

Following the implementation of the mitigation measures noted above, the construction effects are considered negligible, however operational effects associated with the increase in pollutant concentrations as a result of increased operational traffic (air and road) remain significant.

Biodiversity

The biodiversity assessment considered impacts on habitats, plants and animals. The current airport habitats consist of hardstanding and areas of vegetation that are managed in order to reduce the risk to airport operations from wildlife movements.

For the construction of the Project components, only small areas of vegetation will be taken, with the majority of the area being existing buildings or hardstanding. No ecologically protected sites or rare habitats are anticipated to be affected by the Project.

During construction, wildlife could be disturbed due to increased noise levels, artificial lighting and vibration from construction activities, and exposed excavations where wildlife may be entrapped. To manage these impacts, mitigation measures such as fencing off excavations, minimising lighting, noise and vibration disturbance, carrying our bird nesting checks, and implementing a vehicle movement plan, will be undertaken.

During operation, the main identified threat is the increased risk of birds strikes due to the increased number of air traffic movements. To manage this impact, wildlife management procedures, such as regular bird watch patrols and the use of chemical, auditory, visual deterrents for birds, will continue to be implemented to discourage bird species from the airport area. The results will be monitored to ensure their effectiveness is maintained.

Disturbance caused by other operational activities is considered negligible in the context of the already operational airport. Operational activities are not expected to result in significant effects on other wildlife beyond birds.

Following the implementation of the mitigation measures noted above, there will be no significant effects on habitats, plants or animals.

Climate resilience

An assessment was undertaken to determine the impacts of climate change on the operation of the Project. The construction phase was not assessed, since construction is planned to be complete by 2028 and therefore will be subject to the current climate.

Potential impacts relate to changes in temperature, increases in precipitation and flooding, high winds and storms, wildfires and ground stability, which may negatively affect the airport infrastructure and systems, through overheating, deterioration, and damage.

Mitigation measures to manage these impacts include:

- Integrating projected climate trends into the design process, through incorporating shading and natural or mechanical ventilation and cooling systems.
- Regular inspection of taxiways and runways to identify early signs of degradation.
- A dedicated Extreme Weather Management Plan (EWMP), with protocols for rainfall monitoring, flood preparedness, emergency response coordination and drainage maintenance.

Following the implementation of the mitigation measures noted above, no significant effects are expected from climate change.

Community

An assessment was carried out to understand how local communities, workers, airport passengers, and businesses may be affected as a result of the Project.

During construction, opportunities and revenue for local/ regional and national suppliers will be generated as the Project will need supplies and materials. This will boost the local economy from the use of local suppliers and the temporary presence of non-local workers, who are expected to spend locally on goods and services.

Minor disruption to existing businesses in or around the airport is also expected and increased traffic during construction is expected to cause

increased congestion around the airport. To minimise these impacts, EPCs will develop and implement traffic management plans. Regular and timely communication via ALA with affected businesses will be established to inform them of construction schedules, anticipated disruptions, and available support measures.

The local community may be temporarily disturbed during construction due to noise, dust, increased road traffic and waste generation. However, by carefully managing construction activities through locally tailored Construction Environmental and Social Management Plans (C-EMSP), the effects on the community will be minimised.

During the operational phase, direct jobs will be created within the airport itself as well as indirect employment in sectors like hospitality, retail, and transportation. In addition, the Project will stimulate tourism by making Almaty more accessible, which benefits local hotels, restaurants, and cultural attractions.

Once the second runway becomes functional, local communities will be affected by an increase in air traffic noise. Noise mitigation measures, including implementation of the Noise Insulation Programme will need to be expanded.

An increase in road traffic in and around the airport is also expected as a result of the Project. Given that traffic congestion is already a concern in Almaty, it is expected that many drivers will continue to use alternative routes through residential neighbourhoods in an effort to avoid the heavily congested main highways. The Project will coordinate with local authorities to improve traffic flow and reduce congestion on key access routes, including Mailin Road, while discouraging the use of residential streets through signage and digital navigation updates.

Should protection and safety zones (such as a public safety zone or a sanitary protection zone) be formally established in response to the anticipated intensification of airport operations, future development (both residential and commercial) in the vicinity would be constrained. Currently, agreements on any protection and safety zones are still under discussion. ALA will need to respond accordingly with any corporate positions or procedures in adherence once decisions are made.

During the construction phase, no significant effects on the community are expected, provided that mitigation measures are properly implemented.

However, during the operational phase, some significant adverse effects may still occur, particularly related to community disturbance from increased air traffic, and the definition and enforcement of safety zones. At the same time, the Project is expected to bring significant beneficial effects through localised economic development.

Geology and soils

An assessment was undertaken to determine the impacts to geology and soils from the construction of the Project. This included consideration of land contamination as well as seismicity and other natural ground hazards.

Historical contamination is potentially present within the ground at the airport due to its historic use as an airport including as a military airport. The fuel farm and other construction areas are being assessed for potential historic contamination.

During construction, excavation and movement (including off-site disposal) of potentially contaminated soils may result in mobilisation or exposure of contamination. During both construction and operation, there may be accidental spillages and leaks with potential to result in ground and/or groundwater contamination, which will be managed through a Spill Prevention Plan.

The Project is located within a region known for its seismic activity and history of powerful earthquakes. Seismic hazards that may affect the Project include ground shaking, liquefaction potential, fault movement, landslides, secondary hazards such as fires or spills, and operational disruption.

In order to prevent harm from ground contamination and seismic hazards to people and the environment, mitigation measures have been developed, including the following:

- Ground investigation to collect information on the quality of soils or groundwater.
- Soil remediation as part of the fuel farm upgrade and implementation of the recommendations and mitigation measures arising from the fuel farm assessment.
- Development and implementation of an action plan for soil and groundwater remediation.
- During operation, ensuring continued use of specific zones for loading and unloading (if concerning potentially polluting substances), including refuelling and maintenance of support vehicles.
- The water quality monitoring regime for both surface water and groundwater should be continued throughout the operational life of the Project.
- In case of a spillage accident, emergency pollution prevention plans will be maintained to the appropriate international standards.
- The management of de-icing fluids will be enhanced through the use of the dedicated de-icing pad included in the Project Horizon design.

Following the implementation of the mitigation measures noted above, no significant effects are expected for geology and soils.

Greenhouse gases

An assessment was undertaken on the potential greenhouse gas (GHG) emissions associated with the construction and operation of the Project.

GHG are gases in the atmosphere that trap heat. These gases are naturally occurring, but human activities that burn fossil fuels (such as from petrol or diesel vehicles, and airplanes) produce GHGs which increases the amount of these gases in the atmosphere. This leads to changes in weather patterns, such as increased temperatures.

During the construction of the Project, GHG emissions will result from the manufacturing and transportation of materials and fuel use for construction equipment. To manage these impacts, during construction, the following mitigation will be implemented:

- Using the carbon reduction hierarchy to focus efforts on ‘build less’, challenging the requirement for materials and exploring alternative approaches. This could include use of recycled materials in construction where possible, and reuse of materials on site.
- Implementing waste management strategies during construction works.
- Sourcing materials wherever possible locally to avoid transport-related emissions.
- Toolbox talks for workers about switching off plant and equipment when not in use.
- Regular plant and equipment servicing and using grid electricity to power instead of fuel where possible given the lower carbon intensity.

During the operation of the Project, GHG emissions will result from operational electricity consumption and the increase in flights. To manage these impacts during operation, the following mitigation will be implemented:

- Electrify operations where possible, including airside vehicles.
- Use or purchase renewable electricity for use in operations.
- Complete regular maintenance of on-site equipment and vehicles to ensure optimal operational efficiency.
- Implement buildings energy efficiency measures to reduce heating, cooling, and energy demands.

Despite the implementation of the mitigation measures noted above, the effects associated with GHG emissions remain significant during both construction and operation.

Noise

The noise assessment considered impacts from both construction and operation of the Project. Sensitive receptors include homes, schools, hospitals, and places of worship in nearby communities.

During construction, noise impacts will result from machinery, equipment, and vehicle movements. Mitigation measures will include noise barriers, low-noise equipment, restricted working hours, and regular monitoring.

During operation, noise impacts will be related to aircraft movements, ground support equipment, and increased road traffic. Some residential, hospital, and educational buildings may experience moderate to major noise impacts, particularly in Turksib and Almerek. Measures to reduce these impacts include fleet modernisation, improved flight paths, and insulation programmes in the vicinity of the airport. Noise monitoring will also be undertaken.

The Noise Management Plan will define the measures to be applied and will be developed in response to changing conditions and requirements, in line with good international industry practice (i.e. ICAO balanced approach). The Noise Insulation Program will also be expanded to include households and public facilities in high-exposure zones.

Following the implementation of the mitigation measures noted above, no significant effects are expected during construction. However, some operational noise effects may remain significant, especially in high-sensitivity areas.

Traffic and transport

An assessment was undertaken to determine the impacts on traffic and transport as a result of the Project.

During construction, there will be an increase in traffic due to construction activities, potential deterioration of roads due to truck movements, decrease in road safety with the likely increase in truck movements and increased nuisance on sensitive receptors. To manage these impacts, a construction traffic management plan will be developed, outlining specific control and mitigation measures to reduce the effects of construction traffic on local roads and communities.

During operation, there will be additional traffic load on the existing road network (albeit lower than construction) primarily due to truck movements related to cargo transport and airport servicing activities. In addition, road traffic is expected to grow due to passenger movements including the use of private cars, shuttle buses and taxis, which will increase stress on an already congested local road network outside of the airport. To manage these impacts, an operational traffic management plan will be developed, outlining safety measures for traffic management. A Surface Access Strategy is also recommended to help inform more effective mitigation measures, improve connectivity, and support long-term sustainability planning.

Following the implementation of the mitigation measures noted above, no significant effects are expected for traffic and transport.

Waste and resources

An assessment was undertaken to determine the impacts on waste and resources as a result of the Project.

During construction, a significant volume of construction waste is expected to be generated by the Project (construction waste, mishandling/surplus construction material, packing material, municipal solid waste).

During operation, there will be additional capacity for passengers and cargo. Therefore, the volume of waste from the catering and hospitality of workers and passengers, packaging waste, and waste generated from maintenance and cleaning will be increased.

Effects associated with waste include contamination of the environment due to mismanagement of waste; dust from poor handling and storage; visual impacts from poor storage; health and safety hazards from poor storage; and increased pressure on existing landfill capacities and increase in waste transportation.

To manage these impacts, Waste Management Plans will be implemented during the construction and operational phases, including measures such as:

- Implementation of the waste hierarchy and appropriate waste segregation.
- Creation and implementation of construction and operational Waste Management Plans.
- Appropriate procedures for the handling and storage of hazardous materials such as waste storage areas being located away from sensitive receptors, limiting access to only authorised personnel, etc.
- All wastes will be transported offsite by vehicles with the appropriate capacity to safely transport the waste material and be accompanied by chain-of-custody documentation and an up-to-date authorised hazardous passport for hazardous waste.

Following the implementation of the mitigation measures noted above, no significant effects are expected for waste and resources.

Water resources

The assessment considered how water resources on the site may be affected during both construction and operation of the Project.

During the construction of the Project, there may be an increase in the risk of contamination to the surface water through accidental spills and dust generation. There may be a temporary increase in flood risk due to construction activities altering the flow paths of the surface water or increasing the amount of surface water runoff in localised areas. Additionally, disturbance of the ground from piling could lead to disruption of natural groundwater flow paths.

Measures will be undertaken during the construction phase to mitigate these potential effects as follows:

- Accidental spill prevention through implementing the Spill Response Plan.
- Compliance with rules of material storage and use, waste storage and its timely removal.
- Use of the existing roads for material delivery.
- Work performed strictly within the construction site.
- Strict prohibition of vehicle washing outside of the specially equipped places.
- Implementation of dust suppression methods.
- Implementation of a water quality monitoring regime of both surface water and groundwater during construction and operational phases.

During operation, the increase in the number of aircraft and support vehicles is expected to result in higher levels of pollution, particularly through routine surface runoff, potentially damaging the water quality of both surface water and groundwater. The existing main drainage network does not provide sufficient capacity to accommodate for the increase in stormwater discharge capacity. The Project will see an increase in impermeable surfaces impacting flow and runoff. However, one of the Project components is concerned with improving the drainage system within the airport. Rising passenger numbers over the Project's lifetime are expected to increase the demand for drinking water.

To manage these effects during operation, the following measures will be implemented:

- Continue the use of specific zones for loading and unloading (if concerning potentially polluting substances), including refuelling and maintenance of support vehicles, so that any accidental spills can be carefully managed to prevent them getting into rivers or streams.
- A water quality monitoring regime of both surface water and groundwater should be continued throughout the operational life of the Project.
- To manage pluvial flood risk, site drainage and the existing culvert should be kept well maintained to prevent blockages that would reduce its effectiveness.

- Undertake a detailed flood risk assessment, to better understand the flood risk and associated operational risk to the airport.
- An emergency pollution prevention plan will be in place, including training of staff to ensure correct use of emergency equipment and protocols.
- Formalisation of the management of de-icing fluids, including associated treatment.
- Establish capacity of municipal supply of water and incorporate water saving measures throughout the Project.

Following the implementation of the mitigation measures noted above, no significant effects are expected for water resources.

Workers

The assessment considered how workers would be affected during the construction and operation of the Project.

During construction, there would be temporary employment opportunities with 85% (360 workers) of the planned workforce for one of the EPC contractors being locally sourced. The project may also produce in-migration, although the number of non-local workers is small. There are also risks to workers' occupational health, safety and wellbeing, and labour rights during construction, such as insufficient, late or non-payment of wages, use of excessive overtime, lack of contract or insufficiently documented contract conditions. Construction activities can cause increased noise and air pollution due to increased traffic movements and dust.

Measures will be undertaken during the construction phase to mitigate these potential effects including:

- Outlining and requiring a fair and transparent, gender-neutral recruitment process for all jobs.
- Prioritising employment of the local workforce.
- Maintaining and making accessible the grievance process to all employees and workers.
- Require contractors to have occupational health, safety and wellbeing plans and procedures to mitigate any health and safety risks.
- Requiring EPC contractors to provide monthly reports of their workforce working hours, overtime use, timely payment of wages, training activities including toolbox talks, labour grievances, protests, union activities, worker accommodation provisions.

During operation, there will be permanent and longer-term employment opportunities as a result of the increased passenger and air traffic. There are also risks to workers' occupational health, safety and wellbeing, and labour rights during operation. Policies are already in place and will be reviewed to confirm whether additions need to be made to the plans and procedures, or if new method statements are required.

Measures will be undertaken during the operational phase to mitigate these potential effects including:

- Outlining and requiring a fair and transparent, gender-neutral recruitment process for all jobs.
- Continually monitoring the implementation of the HR Policy and ensuring the Policy is up to date, to promote equal opportunities for the workers.
- Continually monitoring the implementation of the Occupational Health, Safety and Wellbeing (OHSW) Policy and ensuring the Policy is up to date, to mitigate operational risks for the workers.
- Including contractual requirements to align with Kazakhstan requirements.

Following the implementation of the mitigation measures noted above, there will be no significant adverse effects on workers. A significant beneficial effect on permanent employment generation is expected during long-term operation.

Cumulative effects

Cumulative effects occur when the same location, environmental factor or group of people are affected by multiple environmental or social impacts at the same time. The ESIA assessed two types of cumulative effects:

- Intra-project cumulative effects: multiple impacts from the same project occurring at the same time and location. For example, a resident may experience an increase in both air and noise emissions at the same time.
- Inter-project cumulative effects: combined impacts from the project and other nearby developments. For example, multiple projects may be producing noise emissions that could affect the same residents.

Significant intra-project and inter-project cumulative effects have been identified as resulting from:

- Noise and air quality: Combined effects from construction machinery, aircraft operations, and increased road traffic may lead to persistent nuisance and health concerns for nearby communities.
- Traffic congestion: Cumulative traffic from construction vehicles, airport users, and workers may exacerbate existing road capacity issues, particularly during peak hours.
- Community wellbeing: Repeated and prolonged exposure to noise, air pollution, and traffic congestion may lead to cumulative stress and reduced quality of life for local residents.
- Safety and security risks: Overlapping risks from construction activities, increased traffic, and operational hazards (e.g., wildlife strikes, emergency events) may place additional pressure on local emergency response and safety systems.
- Business and economic impacts: Local businesses may be adversely affected during construction due to access disruptions, noise, and dust. However increased passenger and cargo volumes are expected to stimulate economic activity during the operational phase, leading to beneficial impacts.

These effects will be managed through the implementation of mitigation already described in the sections above, as well as some additional mitigation measures including:

- Updating the Noise Management Plan to reflect cumulative impacts from co-located developments (e.g. railway bypass, industrial parks).
- Coordinating with city planners to avoid placing new sensitive receptors in areas with high noise exposure.
- Coordinating with city authorities to manage emissions from industrial zones and freight corridors.
- Coordinating with city authorities to fast-track the metro extension and improve last-mile connectivity.
- Monitoring traffic volumes and travel times on key access roads (e.g. Mailin Road, Big Almaty Ring Road (BAKAD) connectors).
- Tracking accident rates and near-miss incidents in high-traffic areas.
- Establishing a joint traffic coordination task force with city transport planners and developers of co-located projects.

Environmental and social management framework

ALA has an established an Environmental and Social Management System (ESMS) that provides the foundation for environmental and social risk management. This system includes policies, procedures, and tools aligned with international good practice. The airport is also certified under ISO 14001, demonstrating its commitment to systematic environmental management and continual improvement. The ESMS will be updated to incorporate project-specific risks and mitigation measures identified through the ESIA, ensuring alignment with the evolving scope and scale of the Project.

An Environmental and Social Management Plan (ESMP) will be developed to establish measures that manage Project activities in order to minimise environmental and social risks during both construction (C-ESMP) and operational phases. The ESMP will outline the measures and plans that both

ALA and the EPC Contractors are responsible for actioning; this includes independent monitoring and reporting to lenders on the implementation of environmental and social management.

Conclusion

Overall, with the implementation of the proposed mitigation and management measures, the Project is expected to remain environmentally and socially acceptable, with residual and cumulative effects managed through established frameworks and ongoing monitoring.

What happens next?

A disclosure plan in line with international standards will be implemented, and comments on the Project and the ESIA will be welcome. Information on the ESIA, its findings, and where to access it will be shared with stakeholders, which includes the local community.

A public meeting was held on 7 September 2025 at the House of Culture, 42 Mailin Street, Almaty, for the purpose of presenting the ESIA findings for Project Horizon. Before the meeting, advertisements were placed in local newspapers and on the airport website identifying the date, time, and location for the public meeting.

The event was attended by approximately 60 members of the local community. During the meeting, members of the community raised questions and concerns, which were responded to or noted for further consideration.

After 60 days of disclosure and consultation period, responses will be collated and the ESIA documentation will be finalised. A comment and response table will be released providing information about how the final ESIA has taken into consideration the feedback provided by stakeholders. The Final ESIA Report and documentation will be disclosed via the airport website.

Project contact details

A Community Liaison Officer (CLO) is available to support communication and engagement. Contact details are provided below:

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