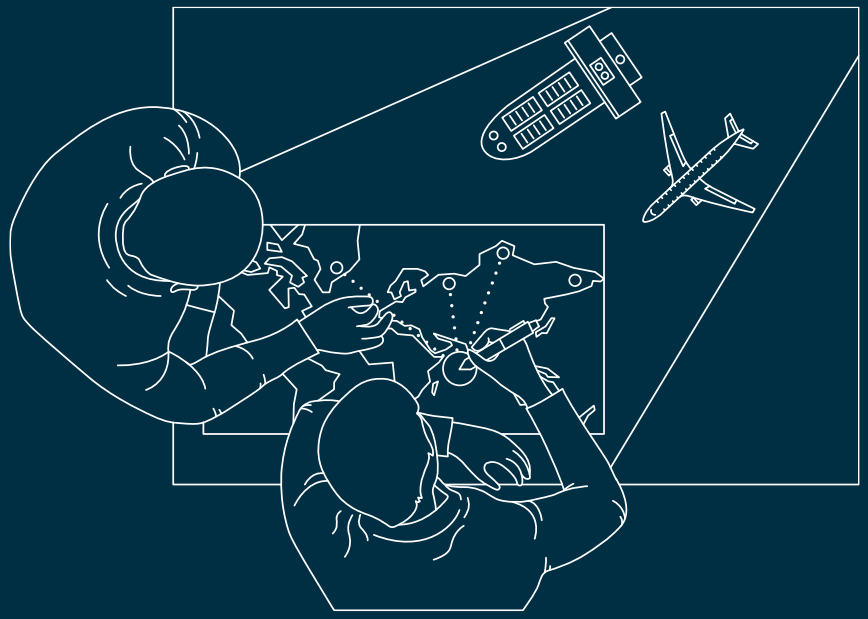
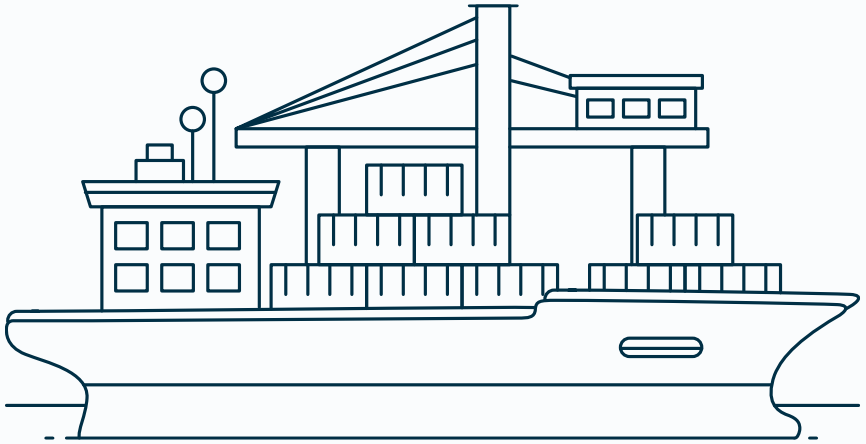


Aktau Port Modernisation

Non-Technical Summary

Prepared for: European Bank for Reconstruction and Development – 02 June 2025



Aktau Port Modernisation

Contents

Introduction

The European Bank for Reconstruction and Development (EBRD) is considering providing finance to JSC National Company Aktau Sea Commercial Port (the "Company"). It is wholly owned by the Republic of Kazakhstan (RK) through the Sovereign Wealth Fund Samruk-Kazyna JSC. This fund also owns 100% of Kazakhstan Railways (KTZ), the operator in Aktau Port.

This Non-Technical Summary summarises the outcomes of the study undertaken, including assessment of the potentially significant existing and future adverse environmental and social impacts and risks associated with the Port's current operations and the Project, and review of compliance with applicable Kazakhstani environmental and social legislation and the EBRD's 2019 Environmental and Social Policy.

Where any aspects have been determined to be non-compliant during the study, actions to rectify this have been identified. These actions are tabulated in a separate Environmental and Social Action Plan.

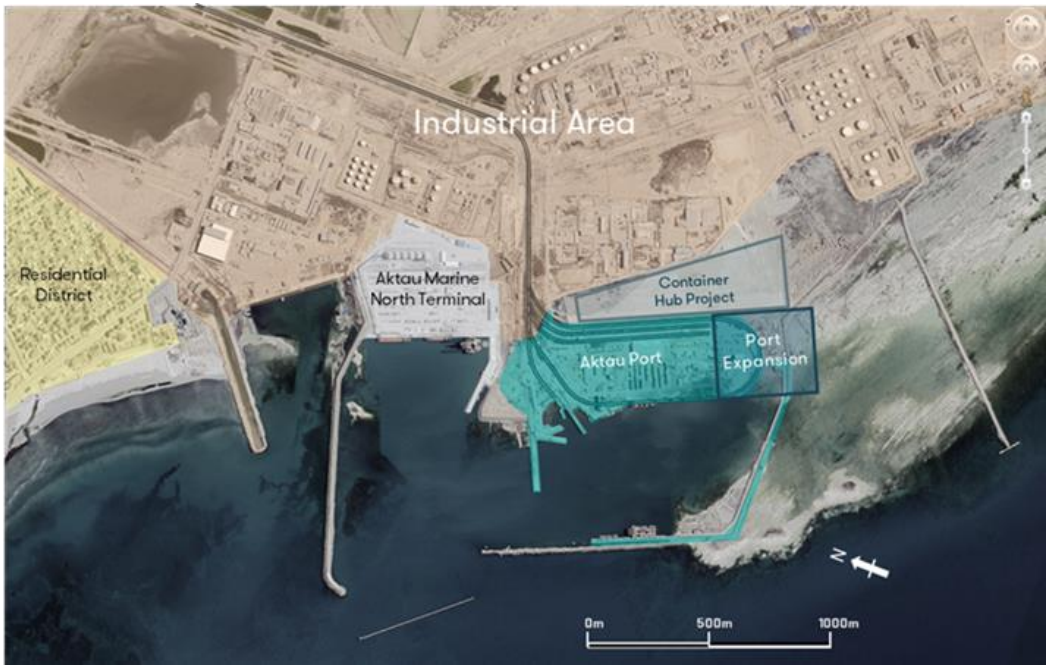
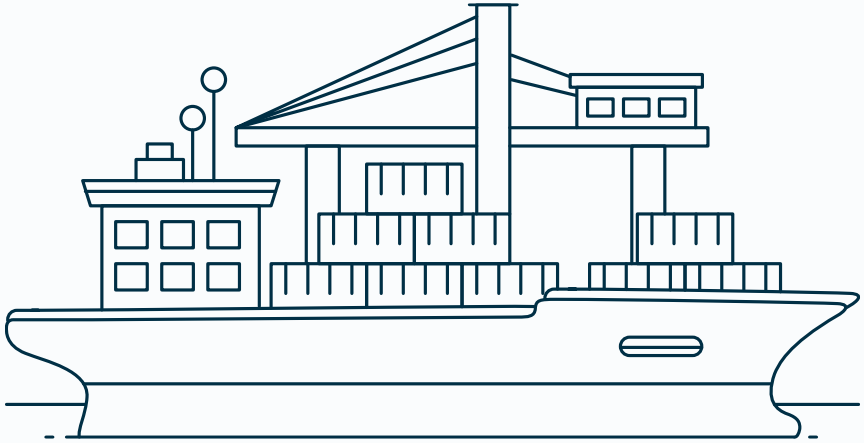


Figure 1: Map showing the location of the Port Expansion Project.

Source: The E&S Consultant, using Google Earth.



Aktau Port Modernisation

Project Overview

Project Location

Aktau Port is situated on the eastern coast of the Caspian Sea in Mangystau Region, western Kazakhstan. Aktau is a strategic maritime gateway and the country's only commercial seaport with direct access to the open sea. The Port lies within the administrative boundaries of the city of Aktau, southeast of the city centre.

The Port is located in an industrial area. It was designed for international transportation of various dry cargoes, crude oil and oil products, as well as for servicing passenger and cargo ferries. It started its operations in the early 1980s and since then has been through several extensions and modernisations.

To the north, the Port borders the territory of Aktau Sea Northern Terminal LLP. Approximately 2 km further north lies the Primorskiy residential area of Aktau, situated adjacent to a public beach.

The closest residential area to the Port is the village of Umirzak located at a distance of approximately 1.6 km from the Port.

Figure 2: Location of Aktau Port.

Source: Google Earth, 2025

Project Description

As Kazakhstan's main Capsian Sea port which facilitates the country's access to the 'Middle Corridor' for transporting goods between East Asia and Europe, the modernisation of Aktau Port, through its extension, is a part of an important strategic objective of the Government of Kazakhstan to enhance its inter-regional connectivity.

The extension of Aktau Port was stipulated in the *Kazakhstan-2030 Strategy: Prosperity, Security and Improvement of Welfare of the Citizens of Kazakhstan (1997)* as a means to pursue its regional development goals and create new job opportunities.

The Project being evaluated by EBRD aims to enable the port to increase its container throughput to 240,000 TEU. The main components include the extension of Berth 3, construction of a new Berth 12, and installation of two new quay *cranes* at Berth 1.

As part of the project, the existing rail track will be expanded to accommodate the anticipated increase in cargo volumes. In addition, land reclamation works will be carried out to support both the berth construction and the railway extension.

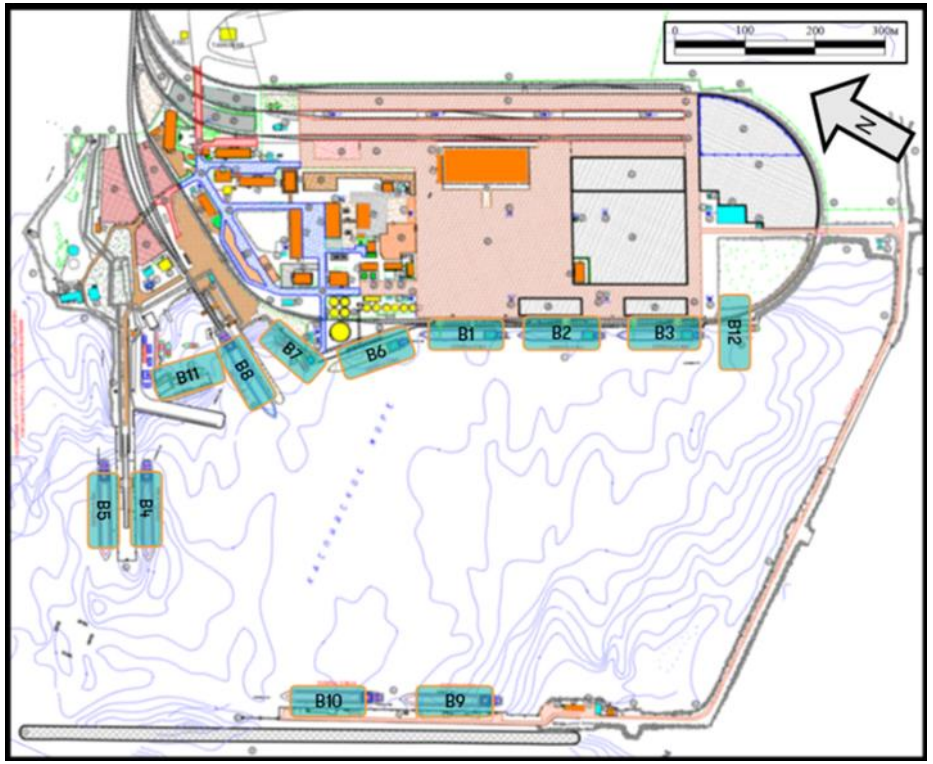


Figure 3: Aktau Port Berth Layout.

Source: Aktau Port

Project Categorisation

In accordance with the EBRD's Environmental and Social Policy, the EBRD has categorised the Project as a 'Category B' project. This is an extension project to the existing Port and although there is an expectation of adverse environmental and social risks/ impacts, these are likely to be limited, few in number and can be readily mitigated by adhering to generally recognised methods, guidelines and design criteria.

Figure 4: Aktau Port

Source: Site Visit, 2025

Project Area of Influence

The areas, facilities and communities potentially impacted by the Project are:

- The direct area of influence of the Project, which is the Project footprint including the extension of Berth 3, construction of the new berth as well as the rail track extension.
- Closest residential areas due to potential impacts on air quality.
- Businesses and other stakeholders that will be both indirectly and directly affected by the construction and operational phases of the Project.
- Waste disposal areas and facilities to be used during the construction and operational phases of the Project.
- Communities that will provide labour and services to the expanded Port.
- The footprint of an associated dredging project, without which the new berths cannot be used.

Associated Dredging Project

The dredging project is being implemented by the Company as a separate process and has undergone its own environmental assessment and national permitting process. Although it is not financed by the EBRD, it is essential to ensure vessel access to the berths supported by the Project. Therefore, in line with EBRD requirements, the dredging is considered an Associated Facility and has been assessed accordingly in the Environmental and Social Audit and Assessment study. While the exact start date of the dredging works has not been officially confirmed, the operations are planned to be carried out in three phases using a dredger, as illustrated in the adjacent figure:

- Phase 1: Excavation activities are carried out in Zones A and B.
- Phase 2: Further excavation is performed in Zone B.
- Phase 3: The final excavation activities are conducted in Zone C.

Figure 5: Associated Dredging Project *(Areas to be filled with seabed material are shown in red.)*

Source: Aktau Port

Analysis of Project Alternatives

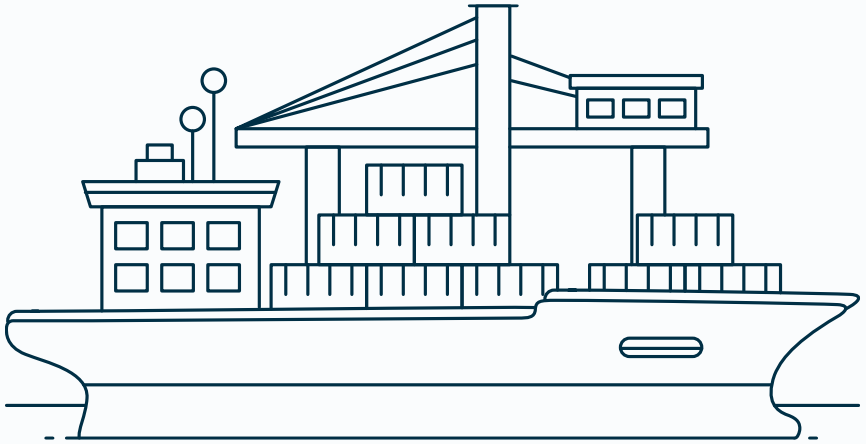
Project alternatives including the 'No Development Alternative' and a scenario of Gradual Development were identified and analysed.

The No Development Alternative would see the status quo remaining on the site. This option will not allow Kazakhstan to pursue its strategic and regional development goals and will not lead to the creation of new job opportunities. The No Development Alternative is therefore not considered realistic.

The option of 'Gradual Development' could bring about similar environmental and socio-economic benefits and risks as the Project option, but at a smaller scale and over a longer period. However, the Gradual Development option may not fully deliver the targets and commitments established by Kazakhstani policies for the Port.

Figure 6: Aktau Port during nighttime operations

Source: Aktau Port Website - https://portaktau.kz/en/about-the-port/



Aktau Port Modernisation

Potential Environmental and Social Impacts and Risks

Potential Environmental and Social Impacts of the Project

The Project's feasibility study includes an environmental assessment, in line with the requirements of the Environmental Code of the Republic of Kazakhstan. Additionally, the Port prepared a report on the Project's environmental impacts in accordance with local legislation. The conclusions regarding the Project's environmental impacts are consistent with those of the environmental assessment included in the feasibility study. Additionally, an Environmental Protection Chapter was developed as part of the project design documentation of the associated dredging project.

The key environmental and social topics considered are listed below:

- Biodiversity
- Air Emissions and Air Quality
- Climate Risks and Greenhouse Gas Emissions
- Water Resources
- Waste Management
- Noise
- Health, Safety and Security

The following sections of this Non-Technical Summary give an overview of these key environmental and social topics for Project and the dredging project where relevant, They also outline the mitigation measures to prevent, reduce or offset potential adverse effects.

Figure 7: Aktau Port

Source: Site Visit, 2025

Biodiversity

Two marine biodiversity studies were undertaken in 2024 for the associated dredging project, collecting data necessary to assess potential impacts on fisheries in accordance with the state methodology. The surveys were conducted at various locations in the Port water area; however, the navigation channel, due to technical and safety constraints, and the land reclamation areas were not covered. To address these gaps, a pre-dredging biodiversity survey of the shallow and coastal land areas which will be filled by the excavated seabed material, will be carried out to ensure alignment with PR6 of the EBRD Environmental and Social Policy.

The environmental assessment concluded that the fish forage base and juvenile fish will be affected during construction of the Project. The extent of impact on fisheries and marine animals will be assessed during project design approval, with compensation determined under state methodology. In addition, the current feasibility study lacks baseline biodiversity data for the small bay and southern coastal and shallow water areas, which are to be filled. A marine biodiversity study along with a biodiversity assessment of the shallow and coastal land areas will be carried out before construction or the Project to address data gaps and ensure compliance with PR6 of the EBRD Environmental and Social Policy.

The Port does not currently monitor seals within its territory. According to a May 2025 interview with the Kazakhstan Agency of Applied Ecology, Caspian seals are regularly observed within 10–15 km of the Port during summer and autumn as part of their migration. The Port is therefore advised to liaise with the Fishery Committee to consider including the navigation channel and ship waiting area in their survey programme. This would allow the Port to benefit from the state monitoring initiative while also contributing to national efforts to protect the Caspian seal.

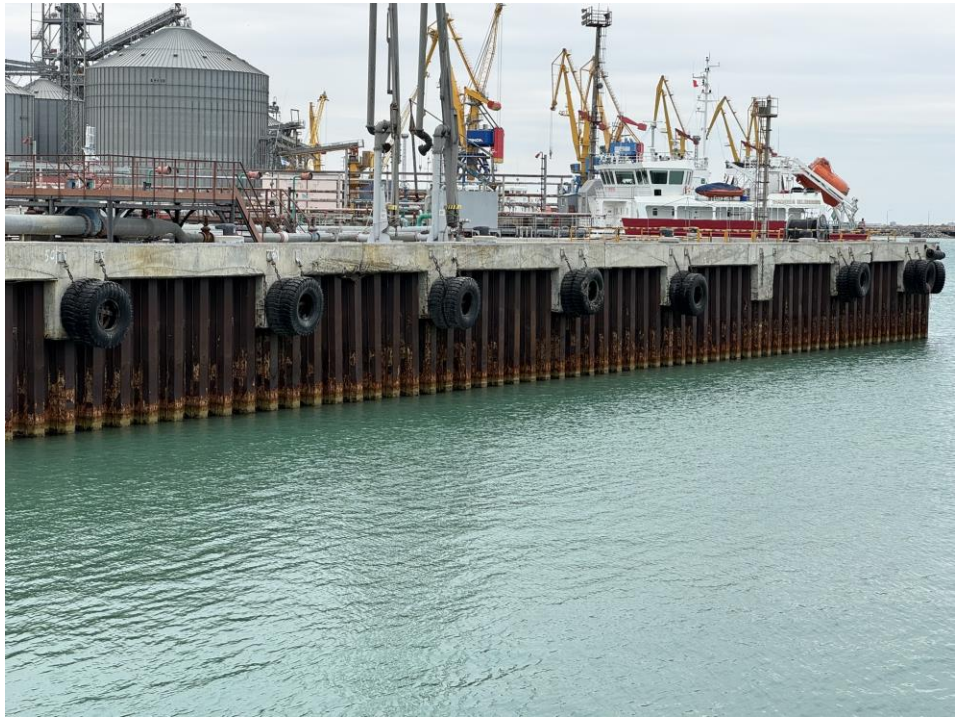


Figure 8: Aktau Port

Source: Site Visit, 2025

Air Emissions and Air Quality

The Project's environmental assessment documents include an air quality dispersion modelling study for both the construction and operation phases of the Project. For the construction phase, 18 air pollutant sources were identified and for the operation phase, three sources were identified.

During construction, pollutant levels were assessed to be generally low. However, the modelling showed that some pollutants exceeded legal limits in nearby residential areas. Similar results were found in the operational phase modelling, suggesting some pollutants may exceed legal limits.

However, due to the extremely high pollutant concentrations reported and inconsistencies in the data, concerns have been raised about the reliability of the modelling. Despite this, the assessment concluded that the air quality impacts would be of low significance, an outcome that aligns with typical findings for similar projects and established understanding of atmospheric dispersion processes.

It was recommended that the air dispersion modelling be re-evaluated, along with a reassessment of the Project's overall impact on existing air quality.

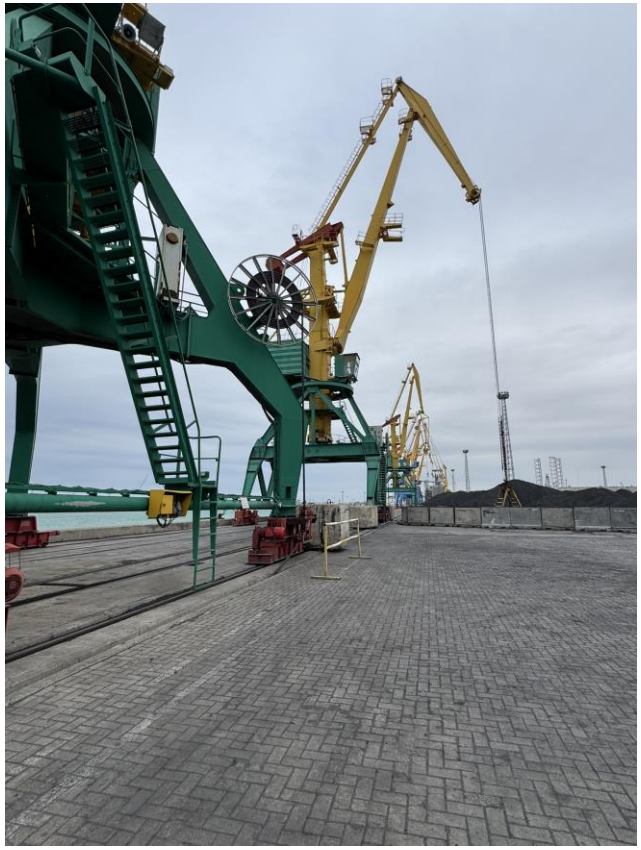


Figure 9: Aktau Port

Source: Site Visit, 2025

Climate Risks and Greenhouse Gas Emissions

A review of the potential risks to the Project as a result of a changing climate was undertaken. The review assessed both the current conditions and future climate projections using global climate models. No high risks were identified. The following medium risks were noted:

- Increasing mean temperatures.
- Extreme heat events.
- Extreme wind events.
- Sea level change.

All other potential climate hazards were assessed low risk.

Separately, it is expected that vessel traffic will increase as the capacity of the Port increases. This will result in increased emissions of greenhouse gases. However, no significant impact is expected.

Figure 10: Aktau Port Car Park

Source: Site Visit, 2025

Water Resources

Water Supply:
No issues are anticipated with water supply for the construction or operational phases of the Project (including the associated dredging works) as the water will be supplied from the existing water network.

Wastewater Management:
Domestic wastewater will be discharged into the existing sewerage system which has the capacity to accommodate the projected increase in volume.

The Project's feasibility study accounted for the projected increase in stormwater volume due to the Project. The study proposed a stormwater drainage system, designed to collect rainwater from concrete surfaces and direct it to treatment facilities. After passing through a device to remove any potential oil contamination, the wastewater will be directed to an evaporation pond. Therefore, no adverse impacts on stormwater management are anticipated.

Water Quality:
The Port has an Environmental Control and Monitoring Programme to check seawater quality, especially around oil-handling areas. However, in 2024 and 2025, monitoring was not fully carried out as planned, and some results showed signs of pollution, such as oil films, odours, and discoloured water. Although there are no official limits for certain pollutants, the findings suggest possible contamination. It is recommended that the Port fully implements its monitoring programme, investigates pollution sources, improves oil-handling practices, and considers measures to prevent untreated water from entering the Port area.

Figure 11: Aktau Port Water Tank

Source: Site Visit, 2025

Waste Management

The Port currently has a Waste Management Programme for the management of both on site waste and waste from visiting vessels. This programme aims to ensure that all waste is handled, transported, and treated in compliance with national environmental legislation.

However, the E&S consultant identified that site practices related to both Port operations and contractor activities on the Port require improvement. Therefore, the Company should establish a properly designated storage area for hazardous and non-hazardous waste, as well as contractors' waste, and ensure that waste is sorted correctly to prevent pest infestation.

Figure 12: Aktau Port Waste Container

Source: Site Visit, 2025

Noise

No significant noise impacts are anticipated during the Project's construction and operational phases.

The construction noise modelling, undertaken as part of the Project feasibility study, confirms that predicated noise levels will be within permissible limits. The report specifies mitigation measures to minimise potential noise impacts during construction activities.

An increase is noise levels due to the operation or port equipment, movement of containers and increase in rail traffic is expected. However, due to the distance between the main Port area and the nearest noise-sensitive receptors – located in the village of Umirzak – the risk of exceeding residential noise thresholds is low.

Figure 13: Port equipment

Source: Site Visit, 2025

Health, Safety and Security

The Port has various procedures to manage Occupational Health and Safety risks and impacts including a management system certified to international standards, mandatory training, regular laboratory assessments of workplace conditions, investigation and reporting of workplace injuries, and maintained firefighting equipment. The Company's Occupational Health and Safety department consists of eight specialists.

The Port has an Emergency Response Plan covering various emergency scenarios including depressurisation of pipelines of the oil loading berths, crane movements due to strong wind, fire on vessels, and accidents involving hazardous goods. Potential emergency situations related to Project implementation are outlined in the feasibility study and will be further assessed during the Project design phase.

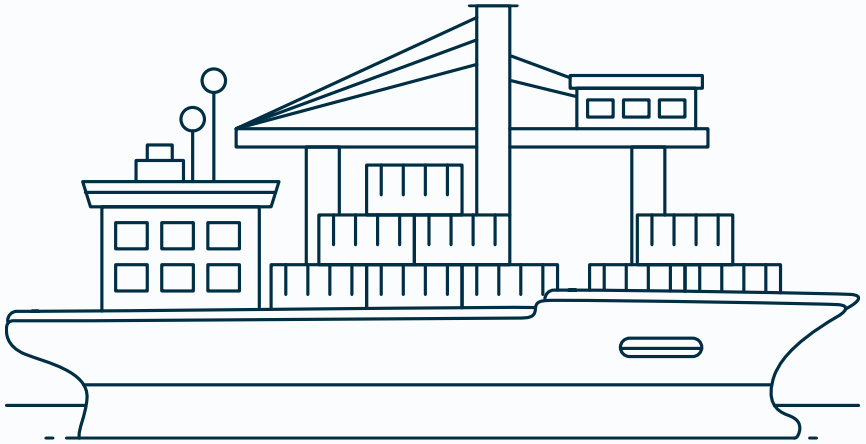
The Port's potential impact on community health and safety is limited due to its location within an industrial zone. A traffic management plan will be required to regulate Project-related vehicle movements during construction, minimise impacts on sensitive receptors, and mitigate potential congestion.

Security services are provided by an external licenced contractor, and all security workers are trained at a specialised training centre.

The Company will conduct regular monitoring of the Project contractors working on site to ensure their compliance with Occupational Health and Safety requirements.

Figure 14: Aktau Port Workers in Personal Protective Equipment

Source: Site Visit, 2025



Aktau Port Modernisation

Stakeholder Engagement

Stakeholder Engagement Plan

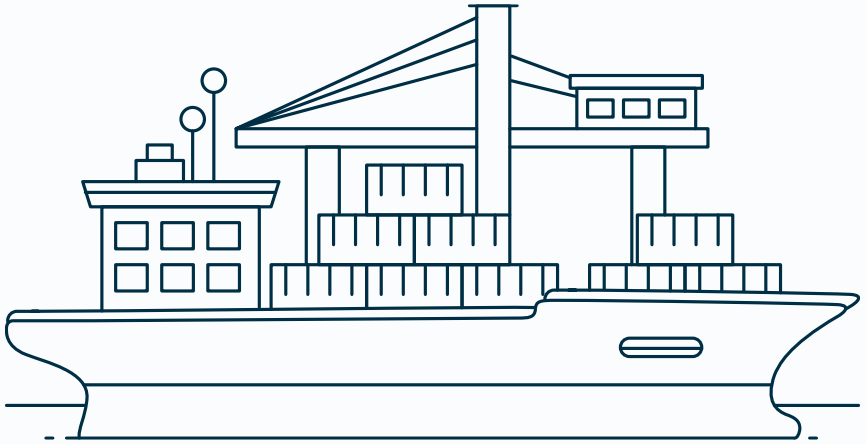
The Company has previously engaged with stakeholders on environmental protection and health and safety matters in line with the national requirements.
A Stakeholder Engagement Plan which outlines the Port's current stakeholder engagement activities as well as future programme that need to be carried out to align with the stakeholder needs of the Project was prepared. The Plan is Project-specific but also covers the existing operations at the Port. The planned activities set out in the Stakeholder Engagement Plan include:

- Public disclosure of the Stakeholder Engagement Plan and Non-Technical Summary.
- Establishment of a Project grievance mechanism.
- Publication of an Annual Environmental and Social Report on the Port's website.
- Annual stakeholder meetings to present and discuss the Environmental and Social Report.
- Updates on the Port's operations, plans, achievements, and E&S matters through the Port's website and mass media.
- Provide updates on the Project's status and E&S information through the Port's website and mass media.
- Public meetings on Project-related matters upon request.
- In-person meetings with interested stakeholders living near the Port.

The Stakeholder Engagement Plan has been published in Kazakh and English on the Port's and EBRD's websites and will be followed throughout the lifetime of the Project.

Figure 15: Supervisory Authority Stakeholders

Source: Aktau Port Website - https://portaktau.kz/en/the-solemn-ceremony-of-sending-trucks-and-railway-containers/



Aktau Port Modernisation

Environmental and Social Management

Environmental and Social Legislation

The national and international legislation and standards applicable to the Project are:

- Kazakhstani environmental and social legislation.
- The EBRD's Environmental and Social Policy together with the associated Performance Requirements.
- Relevant international conventions and protocols relating to environmental and social issues, as transposed into national legislation.
- Good international practice, including but not limited to the EBRD's Sub-sectoral Guidelines on Small Ports.

The applicability of the EBRD's Performance Requirements to the Project is summarised in Table 1.

Table 1: Applicability of the European Bank for Reconstruction and Development Performance Requirements.

EBRD Performance Requirements	Applicable to the Project?
1. Assessment and Management of Environmental and Social Impacts and Issues	Yes
2. Labour and Working Conditions	Yes
3. Resource Efficiency and Pollution Prevention and Control	Yes
4. Health, Safety and Security	Yes
5. Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	No – The Project does not involve acquisition of land or displacement of residences or businesses.
6. Biodiversity Conservation and Sustainable Management of Living Natural Resources	Yes
7. Indigenous Peoples	No – There are no indigenous peoples identified in the Project area.
8. Cultural Heritage	No – Previous studies indicate negligible potential for cultural heritage impacts; therefore assessment against this requirement is not necessary.
9. Financial Intermediaries	No – the EBRD is not using financial intermediaries in relation to the Project.
10. Information Disclosure and Stakeholder Engagement	Yes

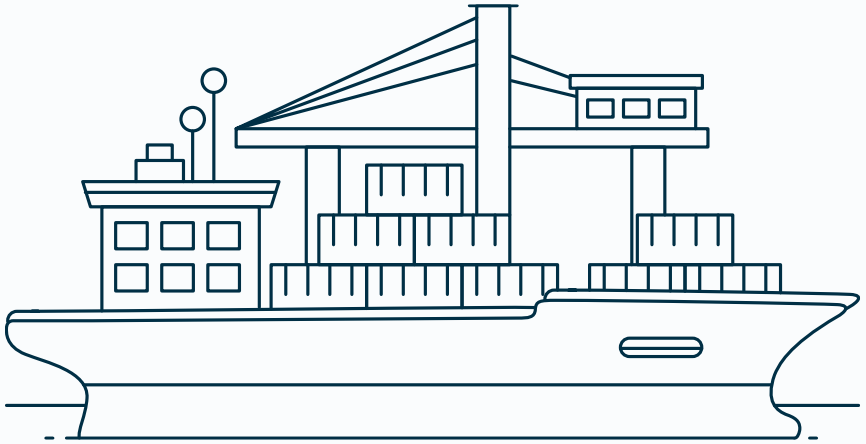
Environmental and Social Management Systems

The Port operates an Integrated Management System that includes a Quality Management System, an Environmental Management System, and an Occupational Health and Safety Management system. The System has been certified in accordance with relevant international standards, indicating good practice in management systems. The System is supported by appropriate policies, plans and procedures to support implementation.

The environmental and social management systems are broadly compliant with the EBRD's Performance Requirements. However, improvements are needed including improvement of the biodiversity assessment, strengthening the management and oversight capacity for both the Port and the Project, and the Key Performance Indicator Framework needs to be updated and expanded to reflect the sustainability targets outlined in the Company's Sustainable Development Policy.

Figure 16: Outside view of Aktau Port

Source: Site Visit, 2025



Aktau Port Modernisation

Environmental and Social Performance Requirements Review

Performance Requirements Review and Mitigation Measures Summary

Overview

No material non-compliances have been identified as part of the Environmental and Social Audit and Assessment study in relation to the EBRD's Performance Requirements. However, some instances of partial compliance have been identified, alongside aspects which are considered fully compliant, and which demonstrate good international practice. These have been summarised in this section.

Where any instances of partial compliances have been identified, corrective actions to rectify these have been identified. These actions are also tabulated in a separate Environmental and Social Action Plan.

1. Assessment and Management of Environmental and Social Risks and Impacts

The environmental assessments for the Project and the dredging project, prepared in line with national legislation, address key environmental and social aspects. The documentation is generally comprehensive, though improvements are needed, especially in terms of biodiversity assessment. The Port operates a certified Integrated Management System (see page 23 for further details) and holds EcoPorts certification, but performance monitoring and policy consistency require strengthening. While most elements of an Environmental and Social Management System are in place, gaps exist in environmental and social capacity for both the Port and the Project, contractor oversight, tenant environmental and safety management, and implementation of the Environmental Control and Monitoring Programme, particularly for seawater and soil. In addition, the Key Performance Indicator framework is limited, and duplication in key Management System components might reduce system efficiency.

A range of mitigation measures have been proposed to align the Project's environmental and social management systems with EBRD Performance Requirement 1. These measures are listed as follows:

- Streamline and consolidate the Port's Integrated Management System to eliminate duplication.
- Update Key Performance Indicators to reflect KTZ's sustainability targets (including occupational health and safety, gender equality, energy efficiency, and environmental performance).
- Conduct a comprehensive review of environmental and social staffing and supervision arrangements, and develop a clear, well-resourced construction phase supervision plan to ensure adequate oversight of key risks with capacity gaps addressed through recruitment, reassignment, or training.
- Strengthen oversight of contractors, formalise environmental and health and safety procedures for tenants, and implement targeted actions to prevent untreated ballast water discharges.
- Monitor water and soil quality as per the Environmental Control and Monitoring Programme.

In addition, implementation of the Environmental and Social Action Plan and annual reporting to the EBRD will be essential to ensure accountability and continuous improvement.

Performance Requirements Review and Mitigation Measures Summary

2. Labour and Working Conditions

The Company ensures the rights of employees provided for by law, pursues a policy aimed at personnel development and provides additional benefits. However, several gaps were identified against Performance Requirement 2 concerning the employees' grievance mechanism, and the lack of minimum control of labour performance by 'third parties' present on site.

The following mitigation measures have been identified to align the Project with EBRD Performance Requirement 2:

- Update human resources documents to include a clause on prohibition of child and forced labour.
- Revise the Policy against Harassment and Discrimination to include protection against reprisal, a feedback mechanism, and gender-based violence and harassment-related provisions, and ensure staff are informed on the revised Policy.
- Enhance the employee grievance mechanism to allow for anonymous complaints, visibly post relevant policies on site, and appoint a female confidant to support female staff.
- Request evidence from contractors and service providers confirming no use of forced or child labour and the provision of employment contracts.
- Regularly monitor and document contractors' labour performance and working conditions during Project delivery.

3. Resource Efficiency and Pollution Prevention and Control

The Project demonstrates partial alignment with Performance Requirement 3. The Port has an established energy management system and a 2022–2026 energy efficiency programme. Dispersion modelling identified exceedances for certain pollutants at residential areas. Given the 1.6 km distance to the nearest receptors, this raises questions about the accuracy of the modelling, as significant impacts would not typically be expected at such distances.

Water supply and wastewater systems are deemed adequate in the feasibility studies, and no additional impacts are anticipated from the Project. However, the 2024 seawater monitoring programme was not fully implemented and some results exceeded thresholds.

Waste management is generally in line with regulatory requirements, with a notable reduction in total volumes in 2024 and established handling procedures. Nonetheless, site observations revealed inadequate hazardous waste storage and poor segregation practices.

To align with Performance Requirement 3, the following mitigations measures need to be implemented:

- The Project should re-evaluate air dispersion modelling.
- Water quality monitoring must be conducted as scheduled, and investigations should identify sources of wastewater pollution, with corrective actions implemented promptly.
- Waste management should be improved through designated, secure storage areas for hazardous and non-hazardous waste, proper segregation, secondary containment, and regular inspections.

Performance Requirements Review and Mitigation Measures Summary

4. Health, Safety and Security

The Company's management of Occupational Health and Safety is generally compliant with national requirements. An Occupational Health and Safety management system is in place and draws upon numerous Occupational Health and Safety standards and instructions adopted by the Port. Based on the document review and visual inspection, further actions are required in the areas of fire safety, electrical safety, hazardous materials management and monitoring of the Occupational Health and Safety performance of tenants and contractors.

The following mitigation measures have been made to align the Project with EBRD Performance Requirement 4 :

- To enhance electrical and fire safety, the Port should ensure electrical panels are lockable and accessible only to authorised staff, standardise fire extinguisher labelling and maintenance, remove non-functional units, and improve the accessibility of fire safety equipment.
- Routine OHS inspections for contractors and tenants should be implemented and documented.
- A traffic management plan should be developed to minimise impacts on sensitive areas prior to construction of the Project.
- Temporary workers should be regularly informed of the Code of Conduct throughout the construction phase and beyond.
- Additional measures include proper labelling and documentation for stored chemicals and clear safety signage in accordance with regulations.
- With increased contractor presence during construction, implement a system to clearly identify external personnel, such as visitor badges, high-visibility vests, or contractor-branded workwear, to improve site security and accountability.

6. Biodiversity Conservation and Sustainable Management of Living Natural Resources

With the potential exception of Caspian seals, the current activities of the Port do not affect living biodiversity resources, fishing and other ecosystem services important to the local population. Additional biodiversity studies are needed to assess the potential impacts of the Project on the shallow and coastal land areas designated for infilling.

The following mitigation measures have been identified to align the Project with Performance Requirement 6:

- Conduct a marine biodiversity study of the bay between Berth No. 12 and the shore before any filling or reclamation.
- Survey biodiversity in shallow and coastal land areas to be filled, focusing on birds, insects, and flora.
- Identify any endemic or invasive species and assess potential impacts on Priority Biodiversity Features and Critical Habitats.
- Based on the findings, develop and implement appropriate mitigation measures.
- Assess Caspian seal interactions with vessels in the Port's access channel and ship waiting area to identify and minimise risks, and define safe vessel routes. Liaise with the Fishery Committee to explore inclusion of these areas in their ongoing seal monitoring programme.

Performance Requirements Review and Mitigation Measures Summary

10. Information Disclosure and Stakeholder Engagement

The Company complies with national requirements on information disclosure and public consultations during the Environmental Impact Assessment procedures and when obtaining emissions permits. The Company mainly uses its official website to disclose environmental information. However, continuous proactive dialogue with the external stakeholders is not currently taking place.

A Stakeholder Engagement Plan has been prepared. This is further described on page 20.

The following mitigation measures have been identified to align the Project with Performance Requirement 10:

- Maintain an up-to-date stakeholder register.
- Implement the Stakeholder Engagement Plan with a focus on affected and vulnerable groups.
- Apply the external grievance mechanism, including anonymous submissions.
- Regularly evaluate the effectiveness of the Stakeholder Engagement Plan using Key Performance Indicators and share results with stakeholders.
- Review and update the Stakeholder Engagement Plan at least every two years.