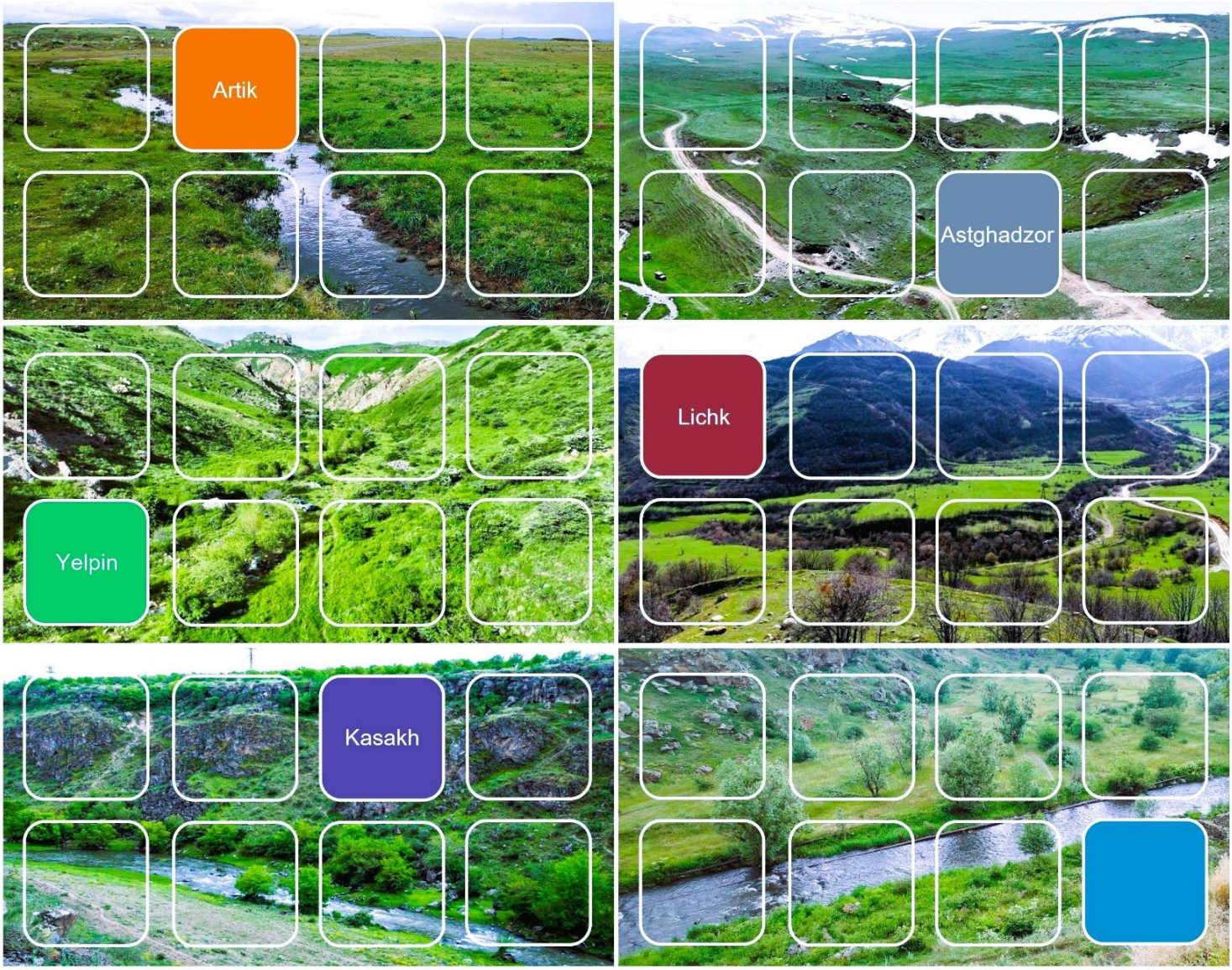

Source: Photos taken by the Consultant during the site visits

WATER RESERVOIRS PROJECT - ARMENIA

ESIA for the Reservoirs Construction Project

ENVIRONMENTAL AND SOCIAL ACTION PLAN

Rev03

February 2026

Prepared for:
European Bank for Reconstruction and Development
and
Water Committee under the Ministry of Territorial Administration and Infrastructure of the Republic of Armenia

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Disclaimer

This Environmental and Social Action Plan (ESAP) has been developed as part of the Environmental and Social Impact Assessment (ESIA) for the Reservoirs Construction Project (hereinafter referred to as "the Project"). It outlines the measures required for the Project to achieve compliance with the EBRD's Performance Requirements.

Responsibility for implementing the mitigation measures, monitoring activities, and stakeholder engagement strategies outlined herein rests solely with the Project Client and its contractors. Any use of this document by third parties is at their own risk, and the Consultant shall not be held liable for any consequences arising from such use.

List of Abbreviations

AESR	Annual Environmental and Social Report
BAP	- Biodiversity Action Plan
BMP	- Biodiversity Management Plan
BOMP	- Biodiversity Offset Management Plan
CESMP	- Construction Environmental and Social Management Plan
CH	- Critical Habitat
CJSC	- Close Joint Stock Company
EBRD	- European Bank for Reconstruction and Development
EIA	- Environmental Impact Assessment
EPRP	- Emergency Preparedness and Response Plan
ESAP	- Environmental and Social Action Plan
ESIA	- Environmental and Social Impact Assessment
ESHS	- Environmental, Social, Health, and Safety
ESMP	- Environmental and Social Management Plan
ESMS	- Environmental and Social Management System
ESP	- Environmental and Social Policy
EU	- European Union
E&S	- Environmental and Social
GBVH	- Gender-Based Violence and Harassment
GHG	- Greenhouse Gas
GIP	- Good International Practice
HR	- Human Resources
LMP	- Labour Management Plan
ME	- Ministry of Environment
MTAI	- Ministry of Territorial Administration and Infrastructure
OHS	- Occupational Health and Safety
OHSMP	- Occupational Health and Safety Management Plan
GA	- Government of Armenia
PAP	- Project Affected Person
PBF	- Priority Biodiversity Features
PIS	- Project Implementation Support
PIT	- Project Implementation Team
PR	- Performance Requirement
RA	- Republic of Armenia
SPMP	- Spill Prevention and Management Plan
SSESMP	- Site-Specific Environmental and Social Management Plan
ToR	- Terms of Reference
WCRA	- RA Water Committee
WMP	- Waste Management Plan
IFC	- International Finance Corporation

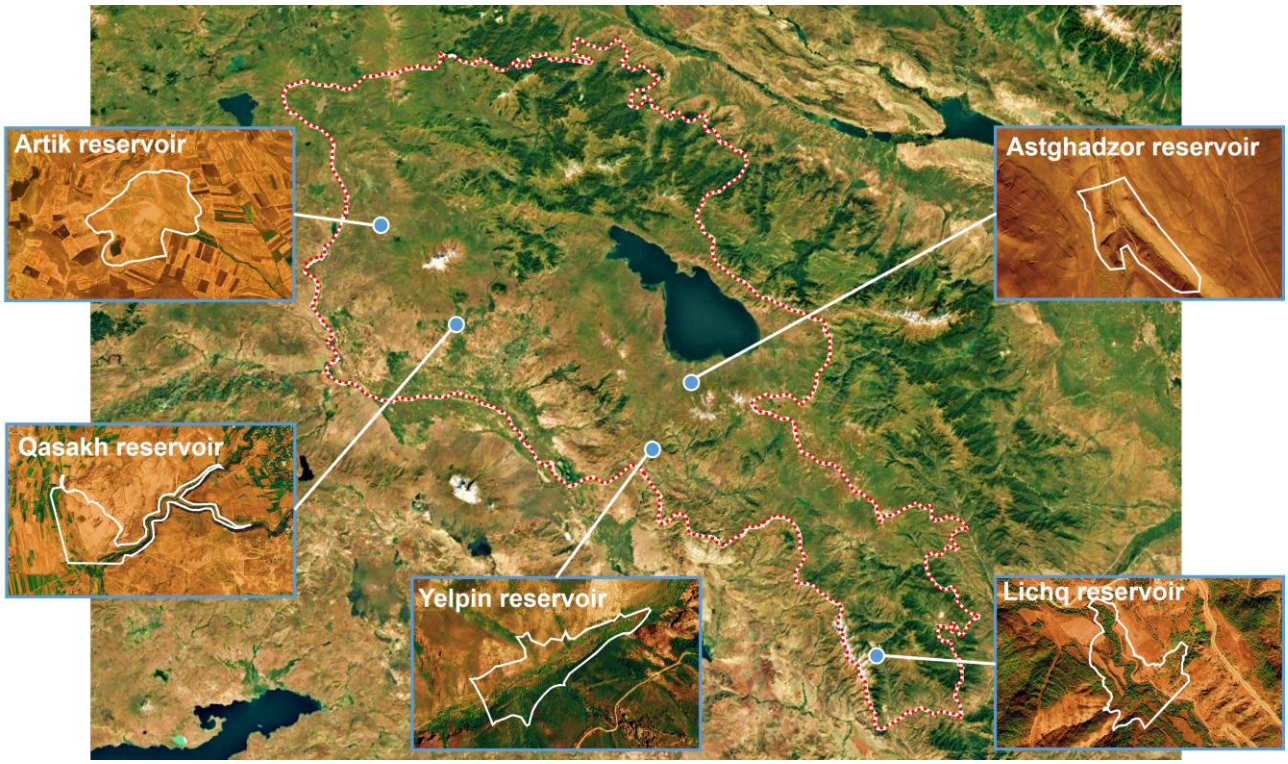
Project Background

The Government of the Republic of Armenia ('RA') plans to construct 17 reservoirs within the EU support initiative 'Recovery, resilience and reform: post 2020 Eastern Partnership priorities' to the Government of Armenia (GA) to enhance the water and food security level in the country. The European Bank for Reconstruction and Development ('EBRD' or the 'Bank') is considering provision of a loan to the GA to finance the construction of six water reservoirs in different regions (Marzes) of Armenia (the Project):

- Kassakh reservoir in Aragatsotn Marz[1],
- Lichk reservoir in Syunik Marz,
- Yelpin reservoir in Vayots Dzor Marz,
- Artik reservoir in Shirak Marz,
- Astghadzor and Argichi[2] reservoirs in Gegharkunik Marz.

The locations of the Project reservoirs are shown in **Figure 1**.

Figure 1. Map of the Project reservoirs



The EBRD has categorized this greenfield project as 'A' in line with its Environmental and Social Policy ('ESP') (2019) because it may cause significant environmental and social impacts. This means that a comprehensive Environmental and Social Impact Assessment ('ESIA') report and associated documents must be elaborated, followed by their public disclosure for a minimum period of 120 days. This Environmental and Social Action Plan (ESAP) has been developed by the Consultant[3] as part of the ESIA package for the Project.

[1]«Marz» means «Region» in Armenian
[2]Design documents for the Argichi reservoir are planned to be developed later
[3]A consortium consisting of ATMS Solutions Ltd. (Armenia) and Ecoline International Ltd. (Bulgaria)

The ESAP (**Table 1**) is an overarching document describing the measures needed to bring the Project implementation in compliance with the requirements of the EBRD Performance Requirements (PRs), the national legislation of Armenia and Good International Practices (GIPs).

The RA Water Committee ('WCRA' or the 'Client') under the Ministry of Territorial Development and Infrastructure (MTAI) will be responsible for the implementation of the Project activities and ESAP, on behalf of the MTAI and the RA.

Purpose and Scope

The ESAP is a standalone document associated with the Project's ESIA Report. It outlines the specific measures, actions, and improvements required for the Project to achieve compliance with the EBRD ESP (2019) and its PRs. It translates the findings of the environmental and social assessment into a practical set of commitments that address identified risks, impacts, and gaps in performance. The ESAP serves as a binding agreement between the Client and the EBRD to ensure the Project is developed and operated in line with good international practice.

The ESAP covers all actions necessary to bring the Project into compliance with applicable national legislation and the EBRD PRs throughout the Project life cycle, including design, planning, construction, operation, and, where relevant, decommissioning. Its scope typically includes actions related to:

- Environmental and social management systems and operational controls,
- Resource efficiency and pollution prevention,
- Occupational health and safety,
- Labor and working conditions
- Community health, safety, and security,
- Land acquisition and involuntary resettlement (if applicable),
- Biodiversity conservation and sustainable resource management,
- Cultural heritage protection,
- Stakeholder engagement, information disclosure, and grievance management.

The scope of the ESAP encompasses all five Project sites, namely, the Artik, Astghadzor, Kasakh, Lichk, and Yelpin reservoirs. Unless otherwise stated, all actions outlined in the ESAP are intended to be implemented across every reservoir included in the Project.

However, it is recognised that certain actions may be site-specific due to differences in reservoir conditions, design features, environmental sensitivities or operational contexts. In such cases, where an action is not applicable to all reservoirs, this is clearly indicated in the "Status/Comments" column of the ESAP table below, along with any relevant explanation or justification.

Environmental and Social Action Plan

Note:

The scope of the ESAP encompasses all five Project sites, namely, the Artik, Astghadzor, Kasakh, Lichk, and Yelpin reservoirs. Unless otherwise stated, all actions outlined in the ESAP are intended to be implemented across every reservoir included in the Project.

However, it is recognised that certain actions may be site-specific due to differences in reservoir conditions, design features, environmental sensitivities or operational contexts. In such cases, where an action is not applicable to all reservoirs, this is clearly indicated in the "Status/Comments" column of the ESAP table below, along with any relevant explanation or justification.

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
PR1	**Assessment and Management of Environmental and Social Risks and Impacts**						
1.1	Establish a Project Implementation Team (PIT) or Entity under the Water Committee of the MTAI. The PIT or Entity shall include dedicated and qualified environmental and social staff with robust expertise on IFI projects and assigned specific Environmental, Social, Health, and Safety (ESHS) monitoring and oversight roles and responsibilities, and shall be provided with sufficient technical resources required to fulfil these functions (at minimum four specialists: an environmental and health and safety specialist, a social specialist with human resources and labour expertise, a resettlement specialist, and a	Compliance with the EBRD PRs and national E&S requirements. Regular E&S monitoring of the Project.	EBRD PR1 - Organisational Capacity and Commitment.	PIT or Entity budget. WCRA and MTAI.	At least 6 months prior to the start of construction activities.	The PIT or Entity established, technically equipped, and staffed with qualified E&S experts.	

[4]D - development, I - implementation, A - approval

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
	stakeholder engagement specialist).						
1.2	Include in tendering specifications and contractual documents the requirement for the Design and Build contractor to include sufficient human, technical and financial resources for project implementation and include relevant Bill of Quantities, with adequate competence in national and international E&S requirements, and with dedicated roles assigned for environmental and social management, biodiversity, cultural heritage and occupational and community health and safety, as appropriate to the number of workers.	Enhanced capacity to implement the Project in accordance with applicable E&S requirements.	EBRD PR1 - Organisational Capacity and Commitment.	WCRA (PIT or Entity) with the help of the ESAP Implementation Support consultant mobilised by the Bank.	At the procurement stage and upon signing a contract with Design and Build contractor.	The Design and Build contractor's team is staffed with a competent and adequate number of E&S specialists.	
	Ensure that the Supervising Engineer Team has sufficient qualified personnel for overseeing the project implementation and required expertise in national and international E&S requirements, with clearly assigned roles for environmental and social management, resettlement, biodiversity, cultural heritage, and occupational and community health and safety, scaled appropriately to the workforce size.				Upon signing a contract with Supervising engineer.	The Supervising engineer's is staffed with a competent and adequate number of E&S specialists.	

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
1.3	Develop and implement the Project's Environmental, Social, Health and Safety Management System (ESMS) for both the construction and operation phase of the reservoirs, covering at a minimum the activities of the WCRA (and PIT or Entity), the Design and Build contractor (and its subcontractors), and JRAR CJSC[5], including: • Environmental, Social, Health and Safety (ESHS) policy and objectives, • Organisational structure, roles and responsibilities, • Contractor and Supplier Management Procedure (to manage their E&S and Health & Safety performance), • Environmental and Social Management Plans (ESMPs) for all Project reservoirs, • A framework for monitoring and reporting on E&S performance (including the E&S Monitoring Plan in the ESMP), • Procedures for addressing non-compliances, complaints and incidents, • Change Management	Enhanced management of the Project's ESHS activities. Continuous improvement of the Project's ESHS performance.	EBRD PR1 - Environmental and Social Management Systems, Environmental and Social Policy. ISO 14001 and ISO 45001 standards *(as specified in the below section of the 1st column of 1.3)*.	WCRA (PIT or Entity) with the assistance of the ESAP Implementation Support Consultant mobilised by EBRD.	D: Before the start of construction activities. I: Beginning with the mobilisation of the Design and Build contractor and throughout the operation phase.	The ESMS is developed, implemented, and functioning effectively.	

[5]Operator of irrigation water reservoirs of 1st and 2nd category ()

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
	Procedure to ensure that any modifications to the Project design (capacity, location, technology) are subject to the appropriate E&S assessment commensurate with the risks. New and altered impacts or newly-emerged impacts shall be assessed, and mitigated in line with the defined materiality threshold and EBRD PRs. Any material changes shall be submitted to and agreed with the Bank prior to implementation, • Stakeholder Engagement Plan (SEP) with Project's Grievance Mechanism. *As a criterion, the principles and elements of the ISO 14001 and ISO 45001 standards may be applied, but formal certification is not required.*						
1.4	Ensure that all subcontractors are aware of relevant Project E&S commitments, as stipulated in the ESIAs, the ESMPs and this ESAP and tendering specifications and comply with the applicable EBRD E&S requirements, and duly implement the Project's ESMS and construction SSESMPs developed by the Design and Build contractor by including:	A synchronized approach to E&S management matters by the Design and Build contractor and its subcontractors. An improved ESHS management system.	EBRD PR1 - Third Party Risk. National requirements.	WCRA (PIT or Entity) with the support of the ESAP Implementation Support Consultant and Lenders Engineer to verify contractual arrangements are in place. Design and Build contractor to monitor the implementation of these	At the procurement stage and prior to signing a contract with the Design and Build contractor. Before signing specific sub-contracts.	Specific provisions are included in the contract with the Design and Build contractor. Specific provisions are included in all subcontractor contracts.	

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
	i) ESIA, ESMP, RAP, BMP, BAP and ESAP compliance requirements in tendering specifications, ii) Specific E&S performance clauses in the Design and Build contractor's contract.			requirements by the subcontractors.			
1.5	Develop, formally approve and implement the construction phase site-specific ESMPs (SSESMPs[6]) in accordance with the EBRDs PRs including, but not limited to: • Traffic Management Plan, • Topsoil Management Plan, • Borrow Pit Management Plan, • Spoil Disposal Management Plan, • Hazardous Materials Management Plan, • Spill Prevention and Management Plan, • Waste Management Plan, • Occupational Health and Safety Management Plan, • Construction Camp Management Plan, including sub-plans for Camp Code of Conduct and Camp Management, • Aggregate Extraction Plan • Blasting Management Plan, • Cultural Heritage	Minimisation and mitigation of the Project's impacts on the environmental and social environments. Improved working conditions and minimized community and occupational health and safety risks.	EBRD PR1 - Environmental and Social Management Plan. EBRD PR1-6, 8, 10. National E&S requirements. GIP.	Within the Design and Build contractor budget. Design and Build contractor to prepare and implement. Supervising engineer to approve. Supervising engineer and WCRA (PIT or Entity) to monitor.	D: before the start of construction activities. I: from the start of construction and throughout the construction phase.	The SSESMPs for the construction phase are prepared and effectively implemented.	

[6]The proposed SSESMPs may vary depending on the Project reservoirs. Please refer to the ESIA reports and the corresponding ESMPs for details

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
	Management Plan, • Chance Finds Procedure, • Riverine Habitat Construction and Management Plan, • Air, Water, and Soil Quality Monitoring Plan, • Noise and Vibration Monitoring Plan. Update these SSESMPs based on additional E&S assessments, studies, monitoring findings, and other relevant information, and agree the updates with the Supervising engineer, WCRA (PIT or Entity), and the Bank. Design and Build contractor should comply with the principles of the Client's Stakeholder Engagement Plan and reservoir-specific Resettlement Plans (RPs).						
1.6	Include in operational agreement with JRAR CJSC or any other company who will be responsible for the operation of reservoirs, mandatory requirement for compliance with the EBRD Performance Requirements, relevant ESAP provisions for the operational phase and Management Plans throughout the operation of the reservoirs. Define and agree with JRAR and Water Users Association water use efficiency measures,	Ensure compliance of reservoirs operator with national E&S requirements and GIPs. Reduced ESHS risks and hazards.	EBRD PR1 - Environmental and Social Management Plan. National E&S requirements. GIP.	Water Committee. JRAR CJSC - reservoirs operator	Before the start of reservoirs operations.	The E&S management plans and procedures for the operation phase are prepared and effectively implemented.	

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
	including metered water intake, consumption limits and financial incentives for farmers for using efficient and sustainable irrigation techniques. Update the relevant construction SSESMPs so that to meet the E&S requirements of the reservoir operation phase (only those SSESMPs that will remain applicable during the operation phase). Implement the updated E&S management plans and procedures, including, but not limited to the following: • Irrigation Water and Environmental Flow Releases Management Plan, • Reservoir Operation and Maintenance Plan, • Traffic Management Plan, • Emergency Response Plan, • Occupational Health and Safety (OHS) procedure (Plan), • Waste Management Plan, • Stakeholder Engagement Plan, • Biodiversity Action Plan.						
1.7	Provide access to the sites and project documentation to an independent external social and	Compliance with the Project E&S commitments.	EBRD PR1 - Project Monitoring and Reporting.	WCRA (PIT or Entity).	Consultants shall be hired before the start of construction works.	Competent consultants are hired.	The Terms of Reference

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	environmental consultant, hired by the Bank, to assess and monitor the Project's social performance in accordance with EBRD environmental and social requirements, management plans and RAPs.		EBRD requirements for 'A' category projects.		During the construction phase and first two years of operations[7].	E&S performance monitoring reports submitted to the EBRD and RD.	for these consultants are to be agreed with the EBRD before hiring.
1.8	Obtain all required permits, authorizations, and approvals from the relevant state authorities, and ensure ongoing compliance with their conditions and requirements, at a minimum including: • Construction permits, • Blasting permits, • Aggregate extraction permit for the reservoirs construction material, • Air emissions permits (if required), • Water use permits (if required), • Hazardous waste passports, Waste generation norms and their disposal limits, • Permits/agreements from the affected communities for the spoil and topsoil storage and disposal areas, borrow-pits, etc., • Agreements with specialised waste management	Compliance with national regulatory and permitting framework. Risk of penalties from the State environmental inspection body.	Requirements of the national E&S legislation.	Design and Build contractor.	As required by the national regulations.	All required permits have been obtained and registered. All agreements related to the Project's E&S matters have been signed and registered.	

[7]Unless otherwise is requested by the EBRD

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
	companies, • Approval of RAPs.						
1.9	Develop and implement a construction-phase monitoring programme to ensure compliance with applicable national and international requirements, as outlined in the relevant ESMPs and SESMPs, and to demonstrate the Design and Build contractor's E&S performance.	Assessment of the effectiveness of mitigation measures established for the construction phase.	EBRD PR1 - Project Monitoring and Reporting. National requirements.	Design and Build contractor to develop. Supervising engineer to approve. WCRA (PIT or Entity) - no objection.	D: Before the start of construction activities. I: During the construction phase.	Monitoring programme developed and implemented.	
1.10	Prepare and submit semi-annual E&S Reports to the EBRD on the ESAP progress and the Project's E&S performance (during construction or until otherwise instructed by EBRD).	Timely monitoring and reporting on the Project's E&S commitments.	EBRD PR1 - Project Monitoring and Reporting.	WCRA (PIT or Entity) with support of the Supervising engineer.	During the construction phase.	Semi-annual E&S monitoring reports submitted to the EBRD.	
	Prepare and submit Annual E&S Reports (AESRs) on the ESAP progress and the Project's E&S performance until the loan is repaid.			WCRA (PIU).	Annually during operation phase and until the loan is re-paid.	Annual E&S monitoring reports submitted to the EBRD.	
PR2	**Labour and Working Conditions**						
2.1	Develop and implement a Human Resources (HR) Policy formally committing to comply with the EBRD's PR2 and national requirements. The HR Policy shall include clear commitments on: • Non-discrimination and equal opportunities, • Temporary worker accommodation,	Improved labour standards and working conditions through clear communication of HR policies and procedures. Reduced risk of labour violations, such as discrimination, unfair treatment, or unsafe working conditions.	EBRD PR2 - Management of Worker Relationships and Grievance Mechanism. National requirements. International Labour	WCRA and Design-Build Contractor respective to their workforce to develop, implement and maintain the HR Policy.	Before the start of construction activities.	HR Policy and supporting procedures adopted, submitted to the EBRD and regularly monitored. Workers' grievance log maintained and submitted to EBRD annually.	

№	Action	Environmental & Social Risks (Liability/ Benefits)	Requirement (legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable[4]	Target and Evaluation Criteria for Successful Implementation	Status/ Comments
	• Principles for preventing and responding to Gender-Based Violence and Harassment (GBVH), • Minimum wage, working hours, and paid overtime, • Prohibition of forced and child labour, • Workers' grievance mechanisms, • Workers' Code of Conduct, • Access to information on workers' rights, • Freedom of association and collective bargaining, • Informing workers and non-worker employees about the provisions of the Project HR Policy. The HR Policy and supporting procedures shall be communicated to all workers and non-employee personnel. The workers' grievance mechanism shall be accessible to all workers, including non-employees and supply-chain workers.		Organization's Conventions.				
2.2	Ensure transparent information is available publicly for affected communities and businesses regarding employment and procurement opportunities at both the construction and operation phases of the Project.	Managing employment expectations.	EBRD PR 2.	WCRA, Design and Build Contractor.	Prior to the commencement of construction and ongoing during construction.	SEP includes clear provisions for the modality of communication of Project-related opportunities.	

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	As part of SEP implementation, organise specific information sessions and engagement events on employment and procurement opportunities for the affected communities.					Local employment subplan of construction labour management plan includes tailor made actions to facilitate access to opportunities.	
2.3	Ensure that key labour requirements outlined in the HR Policy are cascaded to all project contractors and subcontractors by incorporating them into tender documentation and contractual agreements.	Proper HR management of contractors and sub-contractors.	EBRD PR2 - Management of Worker Relationships.	WCRA (PIT or Entity). Design and Build Contractor	During the tender documents and contracts preparation phases. During the construction when involving new subcontractors.	Labour requirements are incorporated into the tender documents and contracts for the Design and Build contractor and subcontractors.	
2.4	Ensure that the Design and Build contractor develops and implements a construction phase Labour Management Plan (LMP), including a Local Recruitment sub-plan, a Workers' Code of Conduct and Internal Labour Control and Monitoring Plan for subcontractors. If temporary accommodation facilities are required for the construction phase, the Design and Build contractor shall ensure that the accommodation meets the standards set out in the IFC/EBRD Worker Accommodation Guidance Note.	Improved management of labour and working conditions. Safe working and living conditions of workers.	EBRD PR2 - Management of Worker Relationships. IFC Guidance Note: Worker's Accommodation: Processes and Standards (2009).	D&I: Design and Build contractor. A: Supervising engineer for approval. WCRA - Non objection.	Developed and implemented before the start of construction activities.	LMP developed, approved and implemented by the Design and Build contractor.	
2.5	As part of the Lenders E&S monitoring consultants' assignment, allow conducting independent labour audits during	Improved safe labour conditions and worker rights.	EBRD PR2 - Management of Worker Relationships.	WCRA to hire an independent labour auditor(s) and	1st audit: immediately before the start of construction.	Labour audit reports accepted by the EBRD ToR and CVs for the labour auditor(s)	

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	the construction phase to verify that the Project complies with the EBRD's labour requirements.	Compliance with international and national labour requirements.		commission two labour audits of the Project.	2nd audit: during the peak of the construction phase.	submitted and approved by the EBRD.	
PR3	**Resource Efficiency and Pollution Prevention and Control**						
3.1	Ensure that the technical specifications of the tender and approved Design of the reservoirs incorporates anti-filtration measures to prevent water losses.	The geological structure of the proposed water reservoirs' locations has fissures and is highly porous, which poses the risk of water infiltration and losses.	EBRD PR3. Good International Practice.	WCRA, Design and Build Contractor.	At procurement and contract signing stage.	Tendering specifications contain a clear requirements to incorporate technical anti infiltration measures in the design.	
3.2	Implement additional and consistent hydrological modelling and flow monitoring at both the reservoir locations and sensitive sites, as identified in the Transboundary Impact Assessment Report, to validate the current hydrology and impact assessment.	The Transboundary Impact Assessment and relevant modelling conclude that significant impacts to downstream users are unlikely. Obtaining measurement at key locations, such as sensitive sites and reservoirs, would help to confirm this conclusion with greater certainty.	EBRD PR 3, Good International Practice.	WRCA and Design-Build Contractor.	Prior to the first Drawdown of the loan and in any case prior to commencement of construction.	Flow monitors installed at all sites. Modelling results and report are submitted to EBRD.	
3.3	Conduct ichthyological studies at Site 2 for Kasakh reservoir, as identified in the Transboundary Impacts Assessment Report, including analysis of fish migration patterns, to ascertain the absence of impacts to downstream users due to Kasakh reservoir operation.	The Transboundary Impact Assessment concludes that significant transboundary impacts on fish are unlikely. Conducting an ichthyological study focusing on migration patterns at defined sites	EBRD PR 3.	WCRA and Design-Build Contractor.	Prior to the first Drawdown of the loan and in any case prior to commencement of construction.	Report on ichthyological studies at Transboundary Site 2 and fish migration patterns submitted to EBRD for review and approval.	

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	Update/complete the national EIA on Kasakh reservoir to assess impacts on fish migration during the operations. Build and maintain fish passage throughout the construction and operation of the Kasakh reservoir.	could help confirm this conclusion with greater confidence.					
3.4	Evaluate the local impact of the Kasakh reservoir on fish migration during the operational phase.	The national EIA did not include impacts on fish during operation.	EBRD PR3.	WCRA, Design-Build Contractor.	Prior to the first Drawdown of the loan and in any case prior to the commencement of construction.	Report on fish migration impact submitted to EBRD for review and approval.	
3.5	Begin daily flow measurements at all reservoir sites as soon as possible to establish a baseline for future hydrological studies and verify the design's hydrology order of magnitude.	The Bank's environmental and social due diligence identified significant discrepancies between the design inflow estimates and those generated by the model, which could have important implications for the design and operation of the reservoirs. These inconsistencies are largely due to the absence of robust measurement data. Flow data collection will allow Design-Build contractors to develop more reliable hydrological assessment.	EBRD PR3.	WRCA, Design-Build Contractor.	Prior to the first Drawdown of the loan and in any case prior to the commencement of construction.	Flow measurement logs are maintained by the WRCA and provided to the EBRD.	

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3.6	Require the Design-Build Contractor to conduct an independent and robust hydrological assessment by qualified third-party experts.	There are significant gaps in inconsistencies in currently available design data.	EBRD PR3.	WCRA, Design-Build Contractor.	Prior to the first Drawdown of the loan and in any case prior to commencement of construction.	Requirements to conduct hydrological assessment are included in tender specifications and Design-Build contracts.	
3.7	Ensure that reservoir designs are revised or robustly justified by Design-Build Contractors based on the findings and conclusions of the hydrological assessment.	There are significant gaps in inconsistencies in currently available design data.	EBRD PR3.	WCRA, Design-Build Contractor.	Prior to the first Drawdown of the loan and in any case prior to commencement of construction.	The Final Design is based on the latest hydrological assessment and is approved by EBRD.	
3.8	Implement erosion control measures by installing slope-breakers, rip rap, geotextile mats and other slope stability measures, etc during the construction and operation.	The construction may trigger significant erosion and landslide impacts.	EBRD PR3.	Design and Build contractor and any subcontractors involved in the construction.	Initiate the process at the design and construction phase. Relevant measures are included in the detailed design documents and construction plans.	Evidence of erosion control design and engineering measures and their application is provided to EBRD.	
3.9	Ensure that the design, construction and operation of the reservoirs incorporate technical measures to maintain the environmental flow of the impounded rivers at all times.	Failure to ensure the environmental flow may trigger significant impacts especially to downstream users.	EBRD PR3, Good International Practice.	WCRA, Design and Build Contractor, JRAR CJSC.	Initiate the process at the design and construction phase. Relevant design, engineering and operational measures are included in the design documentation and construction and operation management plans.	Environmental flow is measured and logged on a regular basis.	
3.10	Incorporate feasible technical, engineering and maintenance measures, as identified in the ESIA studies, into the operational design of the water reservoirs to prevent eutrophication process in the reservoirs.	Lack of maintenance may trigger deterioration of the water quality and impacts on downstream users.	EBRD PR 3, Good International Practice.	WCRA, Design and Build Contractor, Irrigation Design Engineer, JRAR JCSC.	Initiate the process at the design and construction phase. Relevant Design, operational and maintenance plans.	Evidence of required technical and operational measures submitted to EBRD.	
3.11	Prevent the discharge of untreated wastewater, agricultural	Pollution of irrigation water may trigger risks	EBRD PR3.	WCRA, Design and Build Contractor,	Initiate the process at the design and construction phase.	Evidence of technical measures and	

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	run-off and other polluted water into the reservoirs by using technical measures and awareness raising activities involving agricultural users, industries and relevant authorities.	and impacts through the food chain.		Irrigation Reservoir and Irrigation Design Engineers, funded by the Bank, JRAR CJSC, Water Users Association.	Relevant measures are included in the Design and management plans.	consultations with relevant users and authorities is submitted to EBRD.	
3.12	In addition to specific impact mitigation measures proposed in the Project's SSESMPs, develop and implement resource and energy efficiency strategy for the Project construction phase, including the following commitments: • Use energy-efficient site equipment (e.g., LED site lighting with motion sensors or timers), • Turn off non-essential equipment when not in use through site management controls, • Use Euro V or higher standard machinery where feasible, • Prioritise electric or hybrid machinery and heavy-duty vehicles over petrol, diesel, or CNG options, • Maintain equipment regularly to optimise fuel burn and reduce emissions, • Use non-potable or recycled water for dust suppression	Reduced consumption of resources and energy. Improved environmental performance of the Project.	EBRD PR3 - Resource Efficiency. GIP.	Design and Build contractor to develop and implement the resource and energy efficiency strategy. Supervising engineer to approve the resource and energy efficiency strategy. WCRA and EBRD - no objection.	D: Before the start of construction activities. I: During the construction activities.	Resource and energy efficiency strategy developed, approved, and effectively implemented. KPIs for fuel, electricity, water, and materials established, routinely monitored, and reported.	

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	and site cleaning where feasible, • Introduce water-saving fixtures (low-flow taps, trigger nozzles), • Optimise material ordering based on detailed quantity assessments/Bill of Quantity, • Source materials locally to reduce transportation fuel use and emissions, • Prioritise materials with recycled content (recycled aggregates, steel, etc.), • Use energy-efficient modular site offices with insulation and efficient HVAC, • Install low-energy appliances in site camps, • Optimise catering operations to reduce waste and promote reusable items, • Provide eco-driving training to operators and introduce fuel-use monitoring (logbooks or telematics) for construction vehicles. Establish KPIs for fuel, electricity, water, and materials consumption and re-use. Track and report resource efficiency performance quarterly to the WCRA and EBRD (see also **Action 1.10**).						

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3.13	Implement all SSESMPs related to air, noise, vibration, soil, waste, water, hazardous materials, biodiversity and so forth as listed in **Action 1.5** specifically and in other actions across the ESAP.	Effective control of air, noise, and vibration emissions, as well as soil and water pollution.	EBRD PR3. National requirements.	Design-Build contractor and any subcontractors involved in construction.	Baseline monitoring to be conducted at least 21 days prior to the start of construction and continued regularly throughout the construction period.	Monitoring reports regularly prepared and submitted to the Supervising engineer.	
3.14	Develop and submit environmental reports to the authorised state bodies as required by national legislation, including: a) Quarterly reports on environmental protection and resource use to the Tax Service, b) Annual statistical reports on air emissions, water use, and waste generation to the RA Statistical Committee.	Risk of penalties by the State environmental inspection body.	National requirements (Tax Code, Water Code, Waste law, Air emissions law, etc.).	Design and Build contractor.	Starting from the construction phase.	Quarterly and annual environmental reports prepared and submitted to the relevant state authorities.	
PR4	**Health, Safety and Security**						
4.1	Develop and implement Dam Safety Plans and Emergency Preparedness and Response plans to address the risks of floods, extreme heat events, landslides, etc.	Potential emergency events might jeopardise the safety of the employees and communities	EBRD PR4, ICOLD, Good International Practice.	Development by the Design and Build contractor. Approval by the WCRA and Jrar CJSC. Implementation by the Constrictor during construction phase and Jrar CJSC during operation phase.	Prior to the commencement of construction.	Dam Safety Plan and Emergency Preparedness and Response Plans are submitted to EBRD for review and comments.	
4.2	All construction equipment classified as hazardous industrial	Risk of penalties by the Urban development, technical and fire safety inspection body.	EBRD PR4 - Specific Requirements for	Design and Build contractor.	Prior to the commencement of construction activities and annually throughout the construction period.	All hazardous industrial objects are registered in the State Register and have valid technical	

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	objects under national legislation[8] must be registered in the State Register and undergo an annual technical safety inspection. Examples of such equipment include: • Auto cranes, • Loaders, • High-pressure vessels, etc.		Health and Safety Management. RA law on State regulation of ensuring the technical safety.			safety inspection conclusions.	
4.3	Develop and implement an Occupational Health and Safety Management Plan (OHSMP), covering the key elements of the OHS performance management during the construction stage, including: • Allocation of OHS roles and responsibilities, • Identification of OHS risks and hazards, • Induction, briefing, training and knowledge check, • OHS procedures and regulations, including the Permit to Work procedure, • Medical examination, • Management of hazardous materials, chemicals and oil / fuel, • Fire safety and emergency response, • Performance of high hazard	Effective management of OHS activities. Minimised risks of accidents and incidents.	EBRD PR4 - General Requirements for Health and Safety Management.	Design and Build contractor. Supervision Engineer – approval. WCRA and EBRD - no objection.	Prior to the commencement of construction.	OHSMP is developed, agreed with the Supervising engineer and implemented.	

[8]RA law on state regulation of ensuring the technical safety (https://www.arlis.am/hy/acts/215607)

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	tasks • Use of PPE, • Supervision of sub-contractors, • Investigation of safety accidents, etc.						
4.5	Develop an OHS procedure/instructions for maintenance and repair works on the reservoirs.	Effective management of OHS activities. Minimised risks of accidents and incidents.	EBRD PR4 - General Requirements for Health and Safety Management.	Design and Build contractor. Supervision Engineer – approval. WCRA and EBRD - no objection.	Prior to the start of operation phase.	OHS procedures for then operational phase is developed and implemented.	
PR5	**Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**						
5.1	Prepare, disclose, and implement the Resettlement Plans (RP) for the reservoirs in accordance with the principles and requirements set out in the Project Resettlement Framework (RF). RPs shall be compliant with the approved RF and contain provisions for any potential new land acquisitions, not known at this stage, in line with the Management of Change principle. Implementation of the RPs shall be verified through Compliance Report(s) prepared by a Social & Resettlement Specialist of FIDIC Engineer and submitted to the EBRD for acceptance (see **Action 1.7**).	Avoiding or mitigating impacts on the livelihoods of Project Affected Persons (PAPs). Preventing conflicts and fostering positive relations with PAPs.	EBRD PR5. National requirements.	WCRA with support of the Resettlement and Livelihood Restoration Consultants. FIDIC Engineer hired by the WCRA to do monitoring of RP implementation.	The RP is implemented and compensation for lost assets is paid prior to the land entry and commencement of construction. Livelihood restoration measures are completed for all affected persons before the final disbursement and maintained thereafter.	The RP is approved by all relevant parties, disclosed, and implemented. Compliance Report(s) are submitted to and accepted by the EBRD.	

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5.2	Conduct a Resettlement Completion Audit after the full implementation of the Resettlement Plans, including the (almost) complete delivery of livelihood restoration measures.	Evaluated effectiveness of the RP implementation and ensure that no negative impacts occur on the PAP.	EBRD PR5. National requirements.	External Resettlement Consultant hired by the WCRA, or EBRD.	Upon completion of the livelihood restoration measures, in accordance with the schedule outlined in the RP.	The Terms of Reference for the Completion Audit agreed with the EBRD. Completion Audit Report approved by the EBRD.	
PR6	**Biodiversity Conservation and Sustainable Management of Living Natural Resources**						
6.1	Based on findings and recommendations of the ESIA reports, develop the detailed Biodiversity Management Plan (BMP) for the construction phase to achieve No Net Loss for Priority Biodiversity Features. Submit the BMP to EBRD for approval. Disclose the BMP and implement accordingly.	Relevant avoidance, seasonal restrictions and mitigation measures to avoid the loss of biodiversity need to be identified and included in the construction schedule and plans.	EBRD PR6.	Design and Build contractor with the assistance of ESAP Implementation Support Consultants.	At the detailed design phase and in any case at least 6 months prior to the commencement of construction.	Draft BMP is submitted to EBRD for review and approval.	
6.2	Implement the Biodiversity Action Plans (BAPs) across all five reservoirs, incorporating targeted mitigation and monitoring measures to achieve, where appropriate, biodiversity ‘net gain’ or 'no net loss'.	Avoidance of biodiversity loss and protection of Critical Habitat (CH) and Priority Biodiversity Features (PBF).	EBRD PR6 - Biodiversity conservation. EBRD Guidance note - Biodiversity conservation and sustainable management of living natural resources (2023). National requirements.	Design and Build contractor with support of biodiversity consultants. EBRD to approve. Supervising engineer to monitor.	BAPs finalised prior to construction and implemented throughout the construction period and updated as appropriate.	BAPs are effectively implemented. 'No net loss' of natural habitats and a 'net gain' of critical habitats is achieved.	
6.3	Ensure qualified staff (biodiversity experts) are appointed by the Design and Build contractor and Supervising engineer for		EBRD PR6 - Biodiversity conservation.	Design and Build contractor. Supervising engineer.	Upon signing contracts with Design and Build contractor and Supervising engineer.	The Design and Build contractor and Supervising engineer teams are staffed with a	

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	biodiversity measures implementation and monitoring, respectively, and relevant budgets approved (see also **Action 1.2**).		National requirements.			competent and adequate number of E&S specialists.	
6.4	Develop, disclose and implement the Biodiversity Offset Management Plan (BOMP) based on the principles developed in the BAP (Biodiversity Offsetting Strategy section).		EBRD PR6 - Biodiversity conservation. National requirements.	Design and Build contractor with support of specialised contractor. Supervision Engineer - to review and approve.	D: before the start of construction activities. I: at the early stages of construction.	BOMP is developed and implemented.	
6.5	Implement pre-construction field biodiversity surveys in the right season as defined in the BAP and additional field surveys for those Project's components, the locations of which are currently unknown and will be proposed outside the studied areas. Based on the studies, update the BAP (if needed) accordingly, and agree with EBRD.		EBRD PR6 - Biodiversity conservation. National requirements.	Design and Build contractor.	Pre-construction surveys - before the start of construction activities. Additional surveys - when needed. Supervising engineer - to approve.	Studies completed and mitigation measures developed as needed. BAP is updated and agreed with the EBRD.	
PR8	**Cultural Heritage**						
8.1	Avoid and minimise impacts and restrictions of access to local cemeteries, worship sites and archaeological sites. Consult affected communities and relevant authorities in case any relocation of graveyards or archaeological artefacts is required or in case the Project will trigger restrictions of access to worship sites, etc.	The Project may trigger impacts on local cemeteries, access road to the worship places and identified archaeological artefacts.	EBRD PR8	Design and Build Contractor.	At the detailed design stage and in any case prior to landtake and ground clearance.	Evidence of consultations and measures to avoid and minimise impacts are provided to EBRD.	

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8.2	Develop and implement the Chance Finds Procedure[9]. Ensure that its implementation is supervised by the on-site Cultural Heritage Expert of the Design and Build contractor and overseen by the Cultural Heritage Monitor of the Supervising engineer.	Preservation of cultural heritage. Reduction of risk of impacts on known cultural heritage.	EBRD PR8 - Chance Finds Procedure. EBRD Guidance Note - Cultural heritage (2023). National requirements.	Design and Build contractor - to develop and implement. Supervising engineer - to approve the Chance Finds Procedure.	Before the start of construction activities. Implementation - during the earth works.	Chance Finds Procedure is developed, approved and effectively implemented.	
8.3	Prepare, disclose and implement the cultural heritage mitigation measures outlined in the Cultural Heritage Management Plan (CHMP) and ESMP, including the registration of identified cultural heritage sites and the enforcement of all legally required protection measures.			WCRA (PIT or Entity) in cooperation with the Authorised state body[10].	The CHMP finalized and disclosed prior to the start of the construction.	CHMP submitted to EBRD for approval.	CHMPs are required only for Kasakh and Astghadzor sites.
8.4	Verify the implementation of the CHMP via an External Audit Completion Report to be approved by the EBRD. The ToR for preparing an External Audit Completion Report submitted to EBRD.			WCRA to hire cultural heritage experts.	Before the end of the construction period.	External Audit Completion Report prepared and approved by the EBRD.	CHMPs are required only for Kasakh and Astghadzor sites.
PR10	**Information Disclosure and Stakeholder Engagement**						
10.1	Implement the Project's Stakeholder Engagement Plan (SEP), ensuring compliance with all disclosure and information-access obligations.	Continuous information dissemination and engagement with affected stakeholders.	EBRD PR10. EBRD Guidance Note to PR 10 - Information	WCRA (PIT or Entity).	Throughout the Project lifecycle.	The SEP is implemented (evidence can be provided), updated and disclosed.	

[9]EBRD Guidance Note - Cultural heritage (2023) and RA Law HO-261 (1998) "On the protection and use of immovable historical and cultural monuments and historical environment"
[10]Ministry of Education, Science, Culture and Sport

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	The SEP shall be reviewed, updated, and publicly disclosed on a regular basis, as required.	Improving relations with stakeholders and local communities.	disclosure and stakeholder engagement (2023).				
10.2	Appoint a competent communication / liaison / stakeholder engagement specialist to be responsible for the implementation of the SEP.			WCRA (PIT or Entity).	Before the start of construction activities.	SEP implementation specialist / liaison officer appointed and guides the SEP delivery / prepares reports.	
10.3	Appoint Community Liaison Officers responsible for the implementation of the SEP at the level of the Project sites (ensure that at least one such officer at each reservoir location is a female) under the supervision of PIU stakeholder engagement expert.			Design and Build contractor.	Before the start of construction activities.	Community Liaison Officers appointed and monthly reports on the SEP implementation activities submitted to the WCRA.	
10.4	Implement and communicate the grievance mechanism for communities and external stakeholders in line with EBRD's requirements, to include, inter alia, anonymous and confidential grievance channels and redress. The grievance mechanism shall include: • confidential reporting pathways for GBVH grievances, • designated staff experienced in GBVH response, • protection of complainants and witnesses from retaliation or adverse consequences, etc.	Ensuring that grievances are communicated and resolved.		WCRA (PIT or Entity).	Before the start of construction activities and throughout the Project lifecycle.	The grievance mechanism effectively implemented and communicated; results monitored.	

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	The enhanced GM shall be communicated to workers and communities and become fully operational prior to commencement of construction.						