

**The Kingdom of Saudi Arabia**

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**Saline Water Conversion Corporation (SWCC)**

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**SWCC DESALINATION REBUILD  
AND UPGRADES PROJECT**

**| P000371 |**

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**Environmental and Social Action Plan**

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**November 21, 2024**



## Introduction

The Saudi Water Authority (SWA, formerly known as Saline Water Conversion Corporation (SWCC)) is a Saudi governmental institution mandated and entrusted with seawater desalination and the delivery of desalinated water to various regions of the Kingdom of Saudi Arabia. SWCC was established in 1974 as an independent governmental institution. SWCC is the world's largest producer of desalinated water with a production capacity of 11.5 million cubic meters per day. SWCC runs a total of 30 desalination plants with a production capacity of approximately 7.5 million m<sup>3</sup>/day and 139 purification plants with a production capacity of approximately 4 million m<sup>3</sup> /day, distributed throughout the kingdom and is supported by over 9,000 highly efficient, determined, and passionate employees. Asian Infrastructure Investment Bank (AIIB) is providing SWCC with a loan to support two new seawater reverse osmosis (RO) desalination plants in the Kingdom of Saudi Arabia (KSA), Jubail RO2 and Khobar RO2. These two new plants are assets of and operated and maintained by SWCC, and form part of SWCC's strategy and program of replacing its current cogeneration, Multi-Stage Flash (MSF) distillation plants with RO plants that are more cost efficient and environmentally friendly.

## Environmental and Social Action Plan (ESAP)

Based on the recommendations of the "Gap Assessment Report", the ESAP has been prepared and presented in **Table 1**.

**Table 1: Environmental and Social Action Plan**

Environmental and Social Action		Due Dates	Responsible Department	Completion Indicators
1.	<p>Develop an organizational chart for Environmental, Social, Health, and Safety (ESHS) and Human Resources (HR) to enhance the efficient administration of the corporate ESMS. This chart should explicitly outline roles, responsibilities, and reporting structures, highlighting the individuals accountable for E&amp;S due diligence as well as continuous E&amp;S management.</p> <p>Provide update when there is any material change to the organizational arrangement.</p>	3 months after signing the Loan Agreement	Human Resource (HR) Department	Submission of the corporate ESHS and HR organizational charts, inclusive of roles and responsibilities
2.	Review and consolidate all existing corporate E&S policies and governing documents, and verify that these policies are cross-referenced appropriately.	3 months after signing the Loan Agreement	Environment Department	Confirmation on the cross-check result to lenders
3.	Provisions on labor and working conditions are to be prepared or improved filling the gap between AIIB's ESP requirement and incorporated into the ESMS including the establishment of a Grievance Redress Mechanism (GRM) for direct and contracted workers.	6 months after signing the Loan Agreement	HR, Legal, and Audit Department	Submission of the revised policies acceptable to lenders, such approval not to be unreasonably withheld
4.	Establish an audit program for the two RO plants to assess compliance with corporate HR policies requirements. This will encompass a screening process for directly employed workers, contractors, and throughout the supply chain to ensure no underage workers are within the workforce.	6 months after signing the Loan Agreement	HR, and Audit Department	Submission of the revised audit program



Environmental and Social Action		Due Dates	Responsible Department	Completion Indicators
5.	Carry out audits on ESMS and OHSMS implementation performance in the two RO plants on a regular basis.	Throughout project cycle <sup>1</sup>	OHS Department; Environment Department	Submission of regular <sup>2</sup> E&S audit/monitoring reports to lenders
6.	Upgrade the OHS system to include the assessment and management of community health and safety.	3 months after signing the Loan Agreement	OHS Department	Submission of the upgraded system document to the satisfaction of lenders, such approval not to be unreasonably withheld
7.	Develop new E&S management procedures/plans or improve existing ones in line with ESS1 requirements and standards, include them in the ESMS and implement them in the two RO plants. The procedures/plans include the following: (a) Contractor Management Plan, incorporating all pertinent E&S requirements into the selection process and ensuring ongoing performance monitoring throughout the contract's duration, which shall integrate the key performance indicators (KPIs) as in the existing auditing practices. (b) Energy and water efficiency plans with provisions for data monitoring. (c) Procedures for control of documented information.	12 months after signing the Loan Agreement; implementation throughout project cycle	Environment Department; Desalination Sector	Submission of the finalized procedures acceptable to lenders, such approval not to be unreasonably withheld; implementation monitoring records provided in the regular E&S audit/monitoring reports submitted to lenders

<sup>1</sup> The project cycle lasts from loan approval till full repayment of the loan.

<sup>2</sup> Semi-annually in the first two years and annually in the subsequent years.



Environmental and Social Action	Due Dates	Responsible Department	Completion Indicators
<ul style="list-style-type: none"> <li>(d) Solid waste management and monitoring procedures, along with data tracking for individual waste streams (including sludge, workshop waste, warehouse waste, domestic solid waste), aligning them with local legislation and Good International Industry Practice (GIIP). Separate procedures should be developed for each waste stream.</li> <li>(e) Air emissions management plan, including monitoring requirements in accordance with local legislation and GIIP.</li> <li>(f) Wastewater (including brine and domestic wastewater) management procedures and monitoring requirements in compliance with local legislations and GIIP. Separate procedures should be developed for each wastewater stream.</li> <li>(g) Procedures to ensure the separate management of hazardous materials, including inventory and control of refrigerant and hazardous wastes.</li> <li>(h) Procedures to manage chemical handling and storage at the sites and also spill prevention and management.</li> <li>(i) Noise monitoring procedures to adequately reflect the applicability of local legislation and GIIP.</li> <li>(j) Procedures for site restoration after the completion of construction works.</li> <li>(k) Inclusion of social and labor management aspects (including vulnerable groups, gender, gender-based violence, labor influx, security personnel, labor and working conditions, and traffic and road safety).</li> </ul>			



Environmental and Social Action		Due Dates	Responsible Department	Completion Indicators
8.	Development and implementation of environmental monitoring plans for the two RO plants, covering monitoring of O&M phase environmental impacts including brine and domestic wastewater discharge, and solid waste/sludge disposal. The monitoring plans need to specify the parameters to be tested, methodology, standards to be used/applied, location of sampling, frequency and reporting requirements.	3 months after signing the Loan Agreement; implementation throughout project cycle	Environment Department; Desalination Sector	Submission of the monitoring plans acceptable to lenders, such approval not to be unreasonably withheld; monitoring records provided in the regular E&S audit/monitoring reports submitted to lenders
9.	Check and ensure appropriate bunding and/or secondary containment for liquid chemical storage at the two RO plants.	3 months after signing the Loan Agreement	Environment Department	Confirmation to lenders
10.	Verify/test the hazardous nature of sludge from the backwashing operation of the filters of the two RO plants.	3 months after signing the Loan Agreement	Desalination Sector	Test reports submitted to lenders
11.	Develop an overarching Stakeholder Engagement Framework (SEF) that will serve as the foundation for the development of site specific SEPs, in line with ESS1. Develop and implement site specific SEPs for the two RO plants.	3 months after signing the Loan Agreement; implementation throughout project cycle	Desalination Sector	Submission of the SEPs acceptable to lenders, such approval not to be unreasonably withheld; implementation records provided in the regular E&S audit/monitoring



Environmental and Social Action		Due Dates	Responsible Department	Completion Indicators
				reports submitted to lenders
12.	<p>a) Establish and disclose a grievance redress mechanism (GRM) at corporate level and the two RO plants, including disclosing AIIB's Project-affected People's Mechanism (PPM).</p> <p>b) Provide regular reports on the GRM functioning with statistics.</p>	<p>a) before loan approval; maintain throughout project cycle.</p> <p>b) bi-annual, timeline aligned with AIIB's internal reporting.</p>	Legal Sector	<p>a) Disclosure of GRM with PPM acceptable to lenders, such approval not to be unreasonably withheld;</p> <p>b) GRM statistics provided in the regular E&amp;S audit/monitoring reports submitted to lenders</p>
13.	Establish both corporate and site-specific mechanism for disclosing E&S information to the community and individuals affected by the project in accordance with the AIIB's ESF.	3 months after signing the Loan Agreement	Desalination Sector; Legal sector	Disclosure of regular E&S audit/monitoring reports
14.	Develop a training plan for safe driving applicable to corporate, plant, and contractor's workers and implement the plan.	6 months after signing the Loan Agreement; implementation	OHS Department; Desalination Sector	Submission of the training plan and records acceptable to lenders



Environmental and Social Action		Due Dates	Responsible Department	Completion Indicators
		throughout project cycle		
15.	Develop and implement a management program to oversee the work of security personnel in accordance with the AIIB's ESF.	12 months after signing the Loan Agreement; implementation throughout project cycle	OHS Department	Submission of the management program acceptable to lenders, such approval not to be unreasonably withheld; implementation records provided in the regular E&S audit/monitoring reports submitted to lenders
16.	Notify on serious and severe incidents and provide related information or report requested by the lenders in line with the Loan Agreement.	Throughout project cycle	Legal Sector; Project Directors of Plants	In-time notification and provision of information/report acceptable to lenders, such approval not to



Environmental and Social Action	Due Dates	Responsible Department	Completion Indicators
			be unreasonably withheld