CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

SITE DETAILS

Site: **Sindh Engro Coal Mine - Islamkot, Pakistan**
Address: Thar Block II Islamkot Sindh, 69240, Islamkot, PAKISTAN
Contact Person: Fawad Nisar
AWS Reference Number: AWS-000707
Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Gold
Date of certification decision: 2025-May-14
Validity of certificate: 2028-May-13

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)
Audit Type(s): Initial Audit
Audit Start Date: 2024-Oct-07
Audit End Date: 2024-Oct-11
Lead Auditor: Rizwan Masood

WSAS
2 Quality StreetNorth Berwick, EH39 4HW, UNITED KINGDOM

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

Site Participants:

Muhammad Murtaza Ali, Manager Security
Dileep Kumar, Manager Productions & Coal Supply
Imam Ali Detho, Manager CSR
Imran Aslam, GM HSE
Ali Iqtidar, Manager Geology QA/QC
Armughan, DM Utilities & Control
Salman Saeed, Manager Electrical & Instrument
Muhammad Amir Khan, Manager Project Planning & Assist Management
Marwan Ameer, Manager Filed Manintenance
Amna Aftab, DM Environment & Sustainability
Nimra Hussain (Lead), DM Environment & Sustainability
Muhammad Ali Muzammil, DM PP&AM
Azhar Malik, VP Site Operations
Farhan Ansari, GM CSR
Abdul Alam Shaikh, AM Utilities Operations
Aarj Najam Farooqui, Manager Admin & Warehouse
Mushtaq Vighio, Manager Land & Govt Affairs
Faisal Sahafiq, GM Mining Operation & PPAM
Muhammad Umer Farooq, AM Utilities Operations
Fawad Nisar (Lead), DM Environment & Sustainability
Saad Hussain, DM Geo Technical
Jaffar Mehmood, Manager Utilities Operations
Asim Shahbaz, GM Non-Mining Operations & Maintenance
Naila Somoro, Office CSR
Ali Haider Kazmi, Manager Mine Excellence
Imran Kaim Khani, AM RO Process & Operation
Fayaz Ali Soomro, GM Admin & External Affairs

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

ADDITIONAL INFO

Summary of Audit Findings: During the certification audit, 10 major non-conformities, 20 minor non-conformities, and 4 observations were raised. The major non-conformities were of sufficient concern to warrant the categorisation of the non-conformity as major and related to all AWS outcomes.

The Client is requested to perform a root cause analysis and define corrective actions for each of the non-conformities and to submit these to WSAS within 30 days of receipt of the audit report by 19 January 2025.

The major non-conformities must be closed within 90 days of receipt of the report, by 20 March 2025. Due to the number and nature of major non-conformities, a further assessment (remote) will be required to close the major findings and recommend certification.

Minor non-conformities must be closed out by the time of the next annual audit.
CLOSURE OF FINDINGS AND CORRECTIVE ACTION PLAN:

The Client has successfully resolved the corrective action plans addressing all findings.
Proof of implementation has been requested for the Minors and this will be evaluated during the Surveillance Audit. The client is requested to upload evidence of implementation prior to the Surveillance Audit.

Scope of Assessment: The scope of services covers the Initial certification audit for assessing conformity of Sindh Engro Coal Mining Company, Islamkot against the AWS International Water Stewardship Standard Version 2.

Sindh Engro Coal Mining Company (SECMC) is involved in coal extraction in thar coal block II, using open pit mining methodology. SECMC has been allocated area of 95.5km2 by government of Sindh, Pakistan for the mining. the allocated area is called Thar Coal Block II. However, the possession of land has not been completed for 95.5km2 area. Site has marked/mapped its boundaries based on possessed land. Site has an active open pit coal mine, from where coal is extracted and sent to power plants after crushing screening and quality assurance. The open coal seam of open pit mine is between two confined aquifers: roof seam and floor seam aquifers. Roof seam aquifer is exposed to extract coal and cause water seepage in mine which is removed through surfacing dewatering/pumping system. Site also has 29 periphery dewatering bore holes around to mine to avoid the flooding of mine due to floor seam aquifer. Both roof seam and floor seam aquifers are saline and not it for use. Site treat a portion of dewatering borehole water for its use and a portion of untreated ground water is sent to adjacent power plant. Rest water from ground dewatering and surface dewatering is sent to Gorano area for disposal. A dewatering dam/pond has been created from the mine effluent disposal in Gorano area. Historically, there was no waterbody before the mining activity.

The audit was conducted onsite on 07 - 11 Oct, 2024.

The site visit included the assessment of Mining area, water infrastructure at site, water disposal area and etc. as part of the audit.

SCORE

51.00

FINDINGS

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

NUMBER OF FINDINGS PER LEVEL

Observation	4
Minor	20
Major	10

WSAS
2 Quality StreetNorth Berwick, EH39 4HW, UNITED KINGDOM

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

FINDING DETAILS

Finding No:	TNR-014699
Checklist Item No:	1.1.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including: - Site boundaries; - Water-related infrastructure, including piping network, owned or managed by the site or its parent organization; - Any water sources providing water to the site that are owned or managed by the site or its parent organization; - Water service provider (if applicable) and its ultimate water source; - Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies; - Catchment(s) that the site affect(s) and is reliant upon for water.
Findings:	Site has not documented following water related infrastructure. - Dewatering bore map/locations and dewatering piping network for both (ground and surface dewatering) - Sewage network at site and connectivity of areas - RO reject storage location and capacity
Corrective action:	Detailed Piping layout having dewatering wells identification and sewage network connectivity marked, evidence of updated layout shall be shared. RO reject storage location capacity and quantity shall be shared separately.

Finding No:	TNR-014700
Checklist Item No:	1.2.1
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall: - Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people; - Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies; - Provide evidence of stakeholder consultation on water-related interests and challenges; - Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups; - Identify the degree of stakeholder engagement based on their level of interest and influence.
Findings:	Site has not effectively consulted the stakeholders to understand their water related challenges. Also, The prominent stakeholders not identified/ consulted are; - Nearby Communities to the Gorano water disposal area - Shanghai Electric (involved in coal mining and power generation in Thar Block 1, i.e. neighboring mining company)
Corrective action:	Community of 05 villages around Gorano shall be engaged to identify their water related challenges. Engagement with Shanghai electric shall be done to discuss shared water challenges. Shared water challenges list shall be updated Water Stewardship plan shall be modified accordingly

Evidence of implementation:	In response to the finding regarding stakeholder consultation on water-related challenges, all identified corrective actions have been completed as follows: 1.Engagement with Nearby Communities A structured engagement program was conducted with five villages around the Gorano site to identify their specific shared water challenges A community consultation survey was carried out, covering key aspects such as drinking water availability, RO water quality, and SECMC initiative on good water governance, A summary report of engagement survey identified shared water challenges, hard copies of filled form and photographic evidence, has been uploaded for reference. 2. A formal coordination meeting was held with Shanghai Electric (Thar Block-1) to discuss shared water challenges and identify potential areas for collaboration on AWS outcome The discussions covered shared water Challanges of both Block-1 and Block-II . Collaboration to start Bio saline initiative at Block-1. Collective WASH awareness campaign around communities Block-1 . Block-II and Gornao The meeting minutes, email correspondences, and pictorial evidence of engagements, has been uploaded for reference.
Finding No:	TNR-014726
Checklist Item No:	1.2.2
Status:	In Progress - CA plan approved
Finding level:	Observation
Checklist item:	Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site's ultimate water source and ultimate receiving water body for wastewater.
Findings:	Site has documented degree of influence between site and stakeholder. However, the Gorano area community has not been identified as stakeholder, consequently the influence is not identified.
Corrective action:	As outline in indicator 1.2.1 water stewardship plan will be revised based on engagement with remaining stakeholders specifically including Block-1 and Goran, consequently the Influence shall be identified. Evidence of engagement and identified influence to be updated

Finding No:	TNR-014727
Checklist Item No:	1.3.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Existing water-related incident response plans shall be identified.
Findings:	The site has identified mine flooding, contamination/spills, and water-related operational failures as potential incidents and provided response plans for the former two. However, response plans for operational failures, including those involving the RO and sewage treatment plants, are missing. Also, the site has not considered potential incident of noncompliant effluent discharge from the site.
Corrective action:	Contingency plan based on deviation from approved monitoring regime shall be developed and implemented. Remarks: Regime is currently proposed to SEPA (regulator) for discharge monitoring and is currently under review. Hence plan will be developed once it will be approved.

Finding No:	TNR-014728
Checklist Item No:	1.3.3
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Site water balance, inflows, losses, storage, and outflows, including indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an indication of annual high and low variances shall be quantified.
Findings:	Site has not provided the details (piping and flow meters) of dewatering network. Apparently, the water extraction and discharge values are estimated values instead of reliably measured values.
Corrective action:	Evidence of Flow monitoring SOP shall be shared for dewatering network to indicate that water extraction values are not estimated values Evidence of Flowmeter locations shall be marked on Piping layout and Updated piping layout indicating all major streams (dewatering network, sewage network etc.) shall be shared Evidence of log sheet developed based on monitoring of flow meters to be uploaded
Evidence of implementation:	A comprehensive Flow Monitoring SOP for the SECMC site is uploaded as evidence. This SOP outlines standardized procedures for accurately measuring water inflows and outflows , ensuring that all data collected for water monitoring and water balance calculation is reliable measured and not based on estimations, but flow meter readings. SOP outline the flow meter locations and protocol of water monitoring at SECMC site. All flow meter locations within the site have been identified and marked on the updated piping layout. The updated piping layout, highlighting flow meter locations, has been uploaded as reference . Flow meter are installed on all major streams as mentioned in piping layout including • Buffer Pump House (Water Supply to EPTL) • RO • Surface Dewatering • Peripheral dewatering (Flow meter installed on main header called as main header valve pit located at the end of south series well, which measures complete flow of peripheral dewatering pumps. • STP

Finding No:	TNR-014774
Checklist Item No:	1.3.4
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.
Findings:	The site has not provided sufficient evidence to demonstrate its monitoring program for its discharge. Separate quality report was provided. The parameters and values have not been referenced by any regulatory or international standard for discharges. Also, site has not quantified annual seasonal variance in its source and discharge water quality.
Corrective action:	Endorsement shall be taken form SEPA on discharge monitoring regime Annual variance of approved parameters shall be provided based on available reports
Evidence of implementation:	1.Endorsement from SEPA on Discharge Monitoring Regime A formal submission was made to the Sindh Environmental Protection Agency (SEPA), referring US EPA (PH, TSS, Iron, Manganese) and 04 Heavy metals (Arsenic, Lead, Mercury, Selenium) proposed by SEPA on Discharge (Water disposed at Gorano) monitoring Regime for Quality parameters approved (Letter attached as official letter to SEPA) SEPA's endorsement has been obtained, ensuring that the monitoring program aligns with regulatory requirements. (Letter attached as official letter from SEPA) Official correspondence, approval documentation, and letter from SEPA have been uploaded as reference document. 2. Annual Variance of approved parameters provided for all available reports of 2024 3. New monitoring regime is being followed from month of Jan'25. Reference document attached 4. Revised water monitoring plan is attached and email communication to monitoring consultant (Third party) is attached

Finding No:	TNR-015214
Checklist Item No:	1.3.5
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.
Findings:	The site did not identify the pit and dewatering ponds as potential sources of pollution.
Corrective action:	Pit and Dewatering ponds shall be marked as source of pollutant. Evidence of marking will be provided

Finding No:	TNR-015204
Checklist Item No:	1.5.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.
Findings:	Water related governance initiatives in the catchment found not identified adequately.
Corrective action:	Updated file of all Water related governance initiatives in the catchment will be attached including Water governance target of the catchment area as outline in Sindh Water Policy 22nd July,2023 and PCRWR 2023 Beneath the Sands: A Comprehensive Study of Groundwater in Tharparkar Region. The evidence of water governance initiative by NGO like Dua foundation including solar water project, Community Hand pumps, Shallow hand pumps will be uploaded

Finding No:	TNR-014781
Checklist Item No:	1.5.3
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Mar-20
Checklist item:	The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.
Findings:	Site has not quantified a water balance for its catchment.
Corrective action:	External catchment hydrological study shall be done by engaging third party. PO to be awarded as part of closure Remarks: As study will take time hence it is suggested to reclassify to Minor based on PO issuance and study can be checked in surveillance audit.
Evidence of implementation:	1.Engagement of a Third-Party for Hydrological Study A third-party consultant has been engaged to conduct a detailed external catchment hydrological study to assess water inflows, seasonal variations, and potential impacts on site operations. The Purchase Order (PO) has been issued, formalizing the consultant's scope of work, deliverables, and timeline. All contractual documentation, PO details, and consultant engagement records have been uploaded as evidence. 2.Reclassification Request & Justification As the study involves long-term data collection and hydrological modeling, completion will require significant time. Given that the PO has been issued and the study is in progress, it is recommended that the finding be reclassified as Minor, with final verification to be conducted during the next surveillance audit.

Finding No:	TNR-014783
Checklist Item No:	1.5.6
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.
Findings:	Site has not identified existing and planned water-related infrastructure in the catchment. Instead, site has provided demographic information of the catchment.
Corrective action:	Evidence of engagement to gather detailed catchment Infrastructure data from relevant Govt dept shall be uploaded that must cover Water supply network, RO Plants, sewage network, storm/Rainwater network etc. and their potential exposure to any extreme events shall be evaluated In case of unavailability of data, evidence of coordination with govt dept shall be shared and this will be highlighted as Shared water challenge In water stewardship Plan
Evidence of implementation:	In response to the finding regarding the lack of identification of existing and planned water-related infrastructure in the catchment, the following corrective actions have been successfully implemented: 1. Engagement with Relevant Government Departments "Urban Planning & Development" The site has formally engaged with relevant government authorities to collect detailed infrastructure data related to: Water supply networks RO plants Sewage networks Stormwater/rainwater management systems 2. Addressing Data Unavailability In cases where detailed infrastructure data was unavailable, evidence of follow-ups and correspondence with government authorities has been provided. And scope of Catchment survey is also made part of off "AWS Consultancy PO " with third party awarded PO and Scope of work also uploaded as evidence Official email correspondence, data source, reference document and summary of water related infrastructure have been uploaded as evidence.

Finding No:	TNR-014784
Checklist Item No:	1.6.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Shared water challenges shall be identified and prioritized from the information gathered.
Findings:	The site identified stakeholders only for the thar coal block 2 area and did not consider the catchment. Based on interviews conducted and information in the public domain, the Gorano area community has a challenge related to site activities. As they are located in the catchment but not in the that coal brock 2 area, they were not identified as stakeholders and therefore were not consulted on the water related challenges.
Corrective action:	As mentioned in indicator 1.2.1, based on revised scope of catchment and updated stake holder list engagement will be carried with all stakeholders specifically including gorano and BlocK-I Forms shall be developed for engaging Gorano community Forms shall be filled by engaging community to identify their water related challenges.

Finding No:	TNR-014785
Checklist Item No:	1.7.1
Status:	In Progress - CA plan approved
Finding level:	Observation
Checklist item:	Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.
Findings:	Based on site spectrum of activities the site needs to expand identified risk related to environmental compliances, effluent discharge, accidental spillages of potential pollutants and etc.
Corrective action:	More extensive risk identification exercise shall be done to cover all associated water risks

Finding No:	TNR-014786
Checklist Item No:	1.7.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.
Findings:	The water related opportunities are not prioritized on the basis of potential savings, and business opportunities.
Corrective action:	Prioritization of risk and opportunities will be done separately and Opportunities shall be prioritized based on impact and cost saving

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

Finding No:	TNR-014791
Checklist Item No:	2.2.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	The system to maintain compliance obligations for water and wastewater management shall be identified, including: - Identification of responsible persons/positions within facility organizational structure - Process for submissions to regulatory agencies.
Findings:	The audit team noted that only one parameter (TDS) is used for its mine effluent discharge quality monitoring. The site's quality monitoring parameters were not benchmarked against any local or international standards.
Corrective action:	Endorsement will be taken from SEPA on discharge quality monitoring regime and compliance will be ensured by utilizing independent third party .
Evidence of implementation:	Discharge monitoring regime approved by SEPA. Evidence of letter written to SEPA, SEPA receiving and SEPA approved monitoring regime updated as evidence

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

Finding No:	TNR-014800
Checklist Item No:	2.3.2
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	A water stewardship plan shall be identified, including for each target: - How it will be measured and monitored - Actions to achieve and maintain (or exceed) it - Planned timeframes to achieve it - Financial budgets allocated for actions - Positions of persons responsible for actions and achieving targets - Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.
Findings:	The timelines mentioned in water stewardship plan are not clearly identified. A date mentioned for each action apparently (from audit discussion) is date of completion or target date of completion. Yet although this is site's first ever water stewardship plan, it contains some actions that were completed more than a year ago and only 2 actions were found to be in progress having target dates for Q4 2024 and Q1 2025. Therefore one can conclude that only 2 actions are planned for water stewardship, which is not proportionate with the site's scope of work and shared water challenges.
Corrective action:	Based on updated stakeholder engagement, water stewardship plan shall be updated, and more actions of long-term water management and water quality improvement shall be added as Budget for 2025 has been approved as well.

Evidence of implementation:	Based on updated stakeholder engagement, the Water Stewardship Plan shall be revised to include additional actions focusing on long-term water management and water quality improvement, especially focusing on gorano community site Revision of the Water Stewardship Plan: Incorporation of Long-Term Actions: The plan has been updated to include comprehensive long-term strategies aimed at sustainable water management and quality enhancement. Examples of such actions include: 1. Establishing Monitoring Programs: Implementing continuous monitoring of water quality of community drinking water wells and sharing report with community representative on monthly basis 2.Coordination with PCRWR on their project of "Exploration of Groundwater Potential and promotion of interventions for Rainwater Harvesting and Bio-Saline Agriculture in Sindh" and launching pilot project of Rainwater harvesting at Gorano SIte 3. Installation of 08 New RO plants within the catchment 4. Gorano site community awareness session on Kitchen garden and along provision of minimal support for kitchen garden development and up keep 5. WASH awareness campaigns across communities, schools & Hospitals to spread awareness among communities 6. Catchment survey by third party to identify water related infrastructure and WASH provision inside catchment 7. The pilot project aims to install 50 Bio-Sand Filters at the Gorano site to provide safe and clean drinking water to the local community. Updated Water stewardship plan along with start and end timeline is attached
Finding No:	TNR-014803
Checklist Item No:	2.4.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.
Findings:	No evidence provided that plan to mitigate with identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies
Corrective action:	Evidence of Coordination with relevant public-sector and infrastructure agencies on identification of water related mitigation plan shall be shared Evidence of actions implemented with relevant public sector to mitigate the water risks shall be uploaded

Finding No:	TNR-014804
Checklist Item No:	3.1.2
Status:	In Progress - CA plan approved
Finding level:	Observation
Checklist item:	Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.
Findings:	SECMC in not legally bound to protect water rights of others, however, there are concerns in the community near the Gorano ponds (dewatering disposal site), around a possible impact of the saline water disposal into the pond, on increasing salinity of water in part of the wells in the dune sand aquifer. The aquifer serves as a traditional source of fresh water. The impact or its extent is a subject of ongoing dispute. This dispute was contested in the court of law and the decision is in favor of the SECMC. But the community has filed a review petition in superior court.
Corrective action:	Grievance committee along with RO water management committee to be developed in gorano to ensure all concern raised by community are addressed and with RO management committee the supply of quality water is ensured 24/7 for community

Finding No:	TNR-014810
Checklist Item No:	3.2.1
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	A process to verify full legal and regulatory compliance shall be implemented.
Findings:	Site has provided insufficient evidence to demonstrate that mining effluent disposal is in compliance with the legal requirements.
Corrective action:	Endorsement from SEPA shall be taken on site water related regulatory compliance and monitoring regime compliance to be ensured
Evidence of implementation:	.Endorsement from SEPA on Discharge Monitoring Regime A formal submission was made to the Sindh Environmental Protection Agency (SEPA), referring US EPA (PH, TSS, Iron, Manganese) and 04 Heavy metals (Arsenic, Lead, Mercury, Selenium) proposed by SEPA on Discharge (Water disposed at Gorano) monitoring Regime for Quality parameters approved SEPA's endorsement has been obtained, ensuring that the monitoring program aligns with regulatory requirements. Official correspondence, approval documentation, and letter from SEPA have been uploaded as reference document. 2. Annual Variance of approved parameters provided for all available reports of 2024 3. New monitoring regime is being followed from month of Jan'25. Reference document attached

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

Finding No:	TNR-014811
Checklist Item No:	3.2.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Mar-20
Checklist item:	Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples, shall be implemented.
Findings:	During the site visit the WASH arrangements (toilets, drinking water and handwash) for mine workers were found to be inadequate. Drinking water was kept in dirty containers with no traceability of its sourcing, inspection or quality testing. Workers also complained about the bad drinking water quality. Also, no water or hand wash arrangements were provided near onsite (mine) toilets.
Corrective action:	SOP shall be developed for water bottles transportation to effectively trace the water bottles WASH Audit shall be made part of Annual Audit matrix and report of one audit shall be shared as evidence Monthly drinking water testing from at least 03 location from mining areas shall be conducted and reports of one month shall be shared as part of action closure Handwash and water shall be provided with all washrooms, and pictorial evidence is to be shared

Evidence of implementation:	Following the identified gaps in WASH (Water, Sanitation, and Hygiene) arrangements for mine workers, the corrective actions have been successfully implemented to ensure improved hygiene, safety, and compliance. The following measures have been executed: 1. Drinking Water Management & Quality Assurance Implemented A Standard Operating Procedure (SOP) for water bottle transportation has been developed and implemented, ensuring full traceability of drinking water from source to consumption. Monthly drinking water quality testing is now conducted at three designated mining area locations. Reports for the latest testing cycle have been documented and shared as evidence. 2. WASH Audit & Compliance Monitoring Implemented * Updated SOP and Updated pictures are also attached The WASH Audit has been successfully integrated into the Annual Audit Matrix, ensuring continuous monitoring of sanitation and hygiene conditions at the site. A WASH audit has been conducted as per the revised framework, and the report has been shared as evidence of compliance and with all managers and area owner for 3. Handwashing & Sanitation Facilities Implemented All mine-site toilets are now equipped with handwash and an adequate water supply, ensuring improved hygiene conditions. Regular maintenance and replenishment schedules are in place to ensure the continuous availability of handwashing facilities. Checklist uploaded as evidence Pictorial evidence of the handwash placed in temporary and permanent wash and pictorial evidence uploaded. 4. WASH Audit report also attached as part of evidence
Finding No:	TNR-014812
Checklist Item No:	3.3.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.
Findings:	Site has not set measurable targets for water balance improvement in its water stewardship plan.
Corrective action:	Water conservation roadmap shall be developed and water balance target shall be kept more efffective and tangible with records of baseline consumption and reduced consumption

Finding No:	TNR-014813
Checklist Item No:	3.3.2
Status:	In Progress - CA plan approved
Finding level:	Observation
Checklist item:	Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use shall be implemented.
Findings:	As mentioned in 1.5.3, site has not identified water balance of its catchment. Apparently, fresh water is scarce in the catchment, but saline water is available and site source of water is saline water. Site has not set annual targets to improve the site's water use efficiency.
Corrective action:	The water conversation plan for embedded water use including water use in Laundry, kitchen facilities, LTV washing will be developed More avenues shall be explored via academia partnership to improve water efficiency.

Finding No:	TNR-014814
Checklist Item No:	3.4.1
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.
Findings:	No water quality improvement targets set in water stewardship plan.
Corrective action:	Water quality monitoring of 05 wells around Gorano shall be conducted and results shall be shared with village nominated representatives and this monthly monitoring and result sharing regime shall be set as water quality improvement target as it will set the basis to evaluate any impact on water quality and timely communication to users of this water
Evidence of implementation:	Following the approved corrective action, all required measures have been successfully implemented to ensure systematic water quality monitoring and transparent result-sharing with village-nominated representatives. The following actions have been completed: □ Water Quality Monitoring Initiated Monthly water quality testing of five wells around Groan is now being conducted as per the approved plan. Third-party certified laboratories are being engaged for sample analysis to maintain credibility. □Result Sharing with Village Representatives Community drinking water wells and SECMC RO plant Water quality reports are shared with village-nominated representatives to ensure transparency and community awareness on monthly basis.TO increase awareness among community. Video evidence will be shown during online audit as size of file is larger than system supported □ Integration into Water Stewardship Plan The monthly monitoring and result-sharing regime has been formally incorporated into the Water Stewardship Plan as a water quality improvement target.

Finding No:	TNR-014815
Checklist Item No:	3.4.2
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be identified and where applicable, quantified.
Findings:	The site has not demonstrated continual improvement to achieve best practice for the site's effluent.
Corrective action:	Best practice related to monitoring of water quality of catchment shall be initiated by conducting 05 wells monitoring around gorano and results sharing with TF and community nominated representative of each village with awareness of clean drinking water qaulity
Evidence of implementation:	Regarding Mining effluent discharge, Site has got the environment monitoring regime approved from regulatory body SEPA for water disposed at Gorano. 08 Parameters are cumulatively approved by SEPA. This is the water quality initiative taken considering the fact that no standard exist for underground water so there is no legal obligation but site has gone over and above to ensure quality monitoring. Endorsement letter from SEPA is attached. Morover, following the approved corrective action, all required measures have been successfully implemented to ensure systematic water quality monitoring and transparent result-sharing with village-nominated representatives. The following actions have been completed: □ Water Quality Monitoring Initiated Monthly water quality testing of five wells around Groan is now being conducted as per the approved plan. Third-party certified laboratories are being engaged for sample analysis to maintain credibility. □Result Sharing with Village Representatives Community drinking water wells and SECMC RO plant Water quality reports are shared with village-nominated representatives to ensure transparency and community awareness on monthly basis.TO increase awareness among community. Video evidence will be shown during online audit as size of file is larger than system supported □ Integration into Water Stewardship Plan The monthly monitoring and result-sharing regime has been formally incorporated into the Water Stewardship Plan as a water quality improvement target.

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

Finding No:	TNR-014816
Checklist Item No:	3.6.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Mar-20
Checklist item:	Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.
Findings:	It was noted during the site visit that the WASH arrangements (toilets, drinking water and handwash) for mine workers are not adequate. Drinking water was kept in dirty containers with no traceability of its sourcing, inspection or quality testing. Workers also complained about the bad drinking water quality. Also, no water or hand wash arrangements were provided near onsite (mine) toilets.
Corrective action:	SOP shall be developed for water bottles transportation to effectively trace the water bottles WASH Audit shall be made part of Annual Audit matrix and report of one audit shall be shared as evidence Monthly drinking water testing from at least 03 location from mining areas shall be conducted and reports of one month shall be shared as part of action closure Handwash and water shall be provided with all washrooms, and pictorial evidence is to be shared

Evidence of implementation: Following the identified gaps in WASH (Water, Sanitation, and Hygiene) arrangements for mine workers, the corrective actions have been successfully implemented to ensure improved hygiene, safety, and compliance. The following measures have been executed:

1. Drinking Water Management & Quality Assurance Implemented

A Standard Operating Procedure (SOP) for water bottle transportation has been developed and implemented, ensuring full traceability of drinking water from source to consumption.
Monthly drinking water quality testing is now conducted at three designated mining area locations. Reports for the latest testing cycle have been documented and shared as evidence.

2. WASH Audit & Compliance Monitoring Implemented

The WASH Audit has been successfully integrated into the Annual Audit Matrix, ensuring continuous monitoring of sanitation and hygiene conditions at the site.
A WASH audit has been conducted as per the revised framework, and the report has been shared as evidence of compliance and with all managers and area owner for

3. Handwashing & Sanitation Facilities Implemented
All mine-site toilets are now equipped with handwash and an adequate water supply, ensuring improved hygiene conditions.
Regular maintenance and replenishment schedules are in place to ensure the continuous availability of handwashing facilities. Checklist uploaded as evidence
Pictorial evidence of the handwash placed in temporary and permanent wash and pictorial evidence uploaded.

4. WASH Audit report also attached as part of evidence

* Updated SOP and Updated water bottles picture also attached

Finding No:	TNR-014817
Checklist Item No:	3.6.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Mar-21
Checklist item:	Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.
Findings:	SECMC is experiencing tensions with a segment of the community residing near its mine effluent disposal site (Gorano Pond), where portions of the dune sand aquifer have reportedly become brackish and unsuitable for use. There are ongoing disputes regarding the extent to which the disposal of saline mine dewatering effluent by the site has contributed to this degradation. In response to community concerns, SECMC has undertaken Corporate Social Responsibility (CSR) initiatives, including the provision of safe drinking water through the installation of reverse osmosis (RO) plants. However, the adequacy and proportionality of these measures in addressing the potential environmental impacts remain unclear and will be further evaluated during the upcoming audit.
Corrective action:	Feedback from community residing around Gorano shall be taken to evaluate their accessibility to safe drinking water Drinking water wells quality monitoring reports from Oct to Dec shall be consolidated with graphical trend and shared Drinking water reports of 05 RO plants (provided in villages near Gorano) shall be shared for last 03 months Adequacy of quantity of drinking water provided thru RO plants shall be evaluated based on population of villages and report shall be shared.
Evidence of implementation:	Updated Maps of drinking water wells and RO plant updated. CSR response on methodology for population survey for water adequacy and RO plant installation also attached

Finding No:	TNR-014818
Checklist Item No:	3.8.1
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.
Findings:	Site has not provided evidence of engagement with owner of any shared water-related infrastructure.
Corrective action:	Evidence of previous engagement shall be shared again and a new meeting shall be conducted with SCA and EPTL to discuss any water related infrastructure related risks.
Evidence of implementation:	The coordination Meeting Conducted with EPTL and SCA team separately. The meeting calendar invite, MOM, pictorial evidence where available shared as reference.

Finding No:	TNR-014871
Checklist Item No:	3.9.3
Status:	Closed
Finding level:	Major
Due date:	2025-Mar-20
Checklist item:	Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.
Findings:	Site has not presented initiatives that could be considered as best practices for water quality improvements. In fact, site is not following sectoral good practices in monitoring and treatment of mining effluent.
Corrective action:	Water quality monitoring of wells around Gorano shall be conducted and results shall be shared with village nominated representatives and this monthly monitoring regime shall be set as water quality improvement target
Evidence of implementation:	Regarding Mining effluent discharge, Site has got the environment monitoring regime approved from regulatory body SEPA for water disposed at Gorano. 08 Parameters are cumulatively approved by SEPA. This is the water quality initiative taken considering the fact that no standard exist for underground water so there is no legal obligation but site has gone over and above to ensure quality monitoring. Endorsement letter from SEPA is attached. Morover, following the approved corrective action, all required measures have been successfully implemented to ensure systematic water quality monitoring and transparent result-sharing with village-nominated representatives. The following actions have been completed: Following the approved corrective action, all required measures have been successfully implemented to ensure systematic water quality monitoring and transparent result-sharing with village-nominated representatives. The following actions have been completed: □ Water Quality Monitoring Initiated Monthly water quality testing of five wells around Groan is now being conducted as per the approved plan. Third-party certified laboratories are being engaged for sample analysis to maintain credibility. □Result Sharing with Village Representatives Community drinking water wells and SECMC RO plant Water quality reports are shared with village-nominated representatives to ensure transparency and community awareness on monthly basis.TO increase awareness among community. Video evidence will be shown during online audit as size of file is larger than system supported □ Integration into Water Stewardship Plan The monthly monitoring and result-sharing regime has been formally incorporated into the Water Stewardship Plan as a water quality improvement target.

Finding No:	TNR-014872
Checklist Item No:	4.1.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.
Findings:	Site has not provided/evaluated performance against targets in the site's water stewardship plan.
Corrective action:	Revision of water stewardship with specific, measurable, actions and targets within the water stewardship plan. Evaluation period against each target will be define and evaluation will be carried out accordingly in Mining HSE Committee meeting on quarterly basis

Finding No:	TNR-014873
Checklist Item No:	4.1.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Value creation resulting from the water stewardship plan shall be evaluated.
Findings:	Site has not evaluated Value creation resulting from the site's water stewardship plan.
Corrective action:	Based on learnings of this audit, all ongoing initiatives shall have the proper records maintained for value creation and data before and after execution of initiatives shall be maintained to ensure comparability and extent of value generated

Finding No:	TNR-014874
Checklist Item No:	4.3.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.
Findings:	Site has not consulted stakeholders on its AWS performance.
Corrective action:	Stakeholder engagement process shall be refined and agenda shall be set that must cover tha discussion on following aspects: 1. Any new shared water challenges and water risk and opportunities 2. Actions taken under ambit of water stewardship plan 3. Efficacy of actions taken 4. Impact of water stewardship plan 5. Any new initiatives to attain AWS outcomes

Finding No:	TNR-014875
Checklist Item No:	5.1.1
Status:	Closed
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	The site’s water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.
Findings:	Site has not disclosed water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations.
Corrective action:	Water related internal governance structure is already uploaded and relevant snapshots are again added to drop this finding

Finding No:	TNR-014876
Checklist Item No:	5.3.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	A summary of the site’s water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.
Findings:	Site has not disclosed summary of its water stewardship performance at any appropriate platform.
Corrective action:	Site water stewardship performance shall be disclosed on company's website that is accessible to all stakeholders

Finding No:	TNR-014877
Checklist Item No:	5.4.1
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.
Findings:	Site has communicated the shared water challenges with some stakeholders but not disclosed at any appropriate platform.
Corrective action:	Site's shared water-related challenges and efforts made to address these challenges shall be disclosed on company's website that is accessible to all stakeholders

CERTIFICATION REPORT

Alliance for Water Stewardship (AWS)

Audit Number: AO-001329

Finding No:	TNR-014878
Checklist Item No:	5.4.2
Status:	In Progress - CA plan approved
Finding level:	Minor
Due date:	2025-Oct-07
Checklist item:	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.
Findings:	Site has not documented efforts made by the site to engage stakeholders and coordinate and support public-sector agencies.
Corrective action:	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies will be disclosed on either company website that is accessible to all stakeholders or on company's official social media handles

Report Details

Report	Value
Report prepared by	Rizwan Masood
Report approved by	Anasse Ait Lemkademe
Report approved on (Date)	19 December 2024

Surveillance

Proposed date for next audit
2025-Oct-07

Comment Annual surveillance recommended.

Stakeholder Announcements

Date of publication	Location
16/08/2024	AWS Web Site
16/08/2024	WSAS website
19/08/2024	https://www.secmc.com.pk/wp-content/uploads/2024/08/AWS-000707-SECMC-StakeAnn-Draft-R1.pdf
30/08/2024	Local Newspaper (The Sindh)

Comment Stakeholder announcement was published on AWs and WSAS websites. Site also published the announcement on company website and a local newspaper. All the stakeholder announcements published found to be in English. Site has not published the announcement in local language.

Catchment Information

Catchment Information

Site has an active open pit coal mine, from where coal is extracted and sent to power plants after crushing screening and quality assurance. The open coal seam of open pit mine is between two confined aquifers: roof seam and floor seam aquifers. Roof seam aquifer is exposed to extract coal and cause water seepage in mine which is removed through surfacing dewatering/pumping system. Site also has 29 periphery dewatering bore holes around to mine to avoid the flooding of mine due to floor seam aquifer.

Both roof seam and floor seam aquifers are saline and not it for use. Site treat a portion of dewatering borehole water for its use and a portion of untreated ground water is sent to adjacent power plant. Rest water from ground dewatering and surface dewatering is sent to Gorano area for disposal. A dewatering dam/lake has been created from the mine effluent disposal in Gorano area. Historically, there was no waterbody before the mining activity.

Site has identified its catchment as Thar Coal Seam Aquifer, based on its extraction the Gorano area, the ultimate receiving body of site effluent falls within the identified catchment area.

SECMC Catchment.jpg

Client Description and Site Details

Client/Site Background
Sindh Engro Coal Mining Company (SECMC) is a joint venture between Government of Sindh (GoS), Engro Energy Limited (formerly Engro Powergen Limited) and its partners namely; Thal Limited (House of Habib), Habib Bank Limited (HBL), Hub Power Company (HUBCO); China Machinery Engineering Corporation (CMEC) has joined the SECMC board as strategic investor with preference shares.

Sindh Engro Coal Mining Company (SECMC) is involved in coal extraction in thar coal block II, using open pit mining methodology. SECMC has been allocated area of 95.5km2 by government of Sindh, Pakistan for the mining. the allocated area is called Thar Coal Block II.

However, the possession of land has been completed for the allocated area. Site has marked/mapped its boundaries based on the possessed land. Site has an active open pit coal mine, from where coal is extracted and sent to power plants after crushing screening and quality assurance. The open coal seam of open pit mine is between two confined aquifers: roof seam and floor seam aquifers. Roof seam aquifer is exposed to extract coal and cause water seepage in mine which is removed through surfacing dewatering/pumping system. Site also has 29 periphery dewatering bore holes around to mine to avoid the flooding of mine due to floor seam aquifer.

Both roof seam and floor seam aquifers are saline and not it for use. Site treat a portion of dewatering borehole water for its use and a portion of untreated ground water is sent to adjacent power plant. Rest water from ground dewatering and surface dewatering is sent to Gorano area for disposal. A dewatering dam/pond has been created from the mine effluent disposal in Gorano area. Historically, there was no waterbody before the mining activity.

AWS_SECMC Map.jpg

Summary of Shared Water Challenges

Summary of Shared Water Challenges
Site has identified shared water challenges, these include;
- Insufficient access to safe drinking water
- Limited water availability during Dry Seasons
- Insufficient access to clean and safe toilets
- Limited Awareness of Hygiene Practices
- Poor Water Quality
- Inefficient Water Recycling /Water Wastage

0.1	**General Requirements for Single Sites, Multi-Sites and Groups**	
0.1.1	*Eligibility Criteria*	
0.1.2		
0.1.2.1	*Have any water source locations and water-related discharge locations been visited during the audit, if so, which and where? If none were visited please provide justification.*	Yes
Comment	Site's only water source is on site boreholes some of them were visited. Site discharge mine effluent to a Gorano area. The discharge area historically was not a water body but now appears to be a lake/dam. It is at around 28 Km from site and was visited during the audit.	
0.1.1.1	*The site(s) occupy one catchment OR an exception has been granted.*	Yes
Comment	Yes, the site occupies one catchment.	
0.1.1.2	*The scope of the proposed certification shall be under the control of a single management system.*	Yes
Comment	Yes, the scope of the proposed certification is under the control of a single management system.	
0.1.1.3	*The scope of the proposed certification shall be homogeneous with respect to primary production system, water management, product or service range, and the main market structures.*	Yes
Comment	Yes, the scope of the proposed certification is homogeneous with respect to primary production system, water management, product or service range, and the main market structures.	

1	STEP 1: GATHER AND UNDERSTAND

1.1 *Gather information to define the site's physical scope for water stewardship purposes, including: its operational boundaries; the water sources from which the site draws; the locations to which the site returns its discharges; and the catchment(s) that the site affect(s) and upon which it is reliant.*

1.1.1 *The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:*
- Site boundaries;
- Water-related infrastructure, including piping network, owned or managed by the site or its parent organization;
- Any water sources providing water to the site that are owned or managed by the site or its parent organization;
- Water service provider (if applicable) and its ultimate water source;
- Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies;
- Catchment(s) that the site affect(s) and is reliant upon for water.

in progress

Comment

Sindh Engro Coal Mining Company (SECMC) is involved in coal extraction in thar coal block II, using open pit mining methodology. SECMC has been allocated area of 95.5km2 by government of Sindh, Pakistan for the mining. the allocated area is called Thar Coal Block II. However, the possession of land has not been completed for 95.5km2 area. Site has marked/mapped its boundaries based on possessed land.

Site has an active open pit coal mine, from where coal is extracted and sent to power plants after crushing screening and quality assurance. The open coal seam of open pit mine is between two confined aquifers: roof seam and floor seam aquifers. Roof seam aquifer is exposed to extract coal and cause water seepage in mine which is removed through surfacing dewatering/pumping system. Site also has 29 periphery dewatering bore holes around to mine to avoid the flooding of mine due to floor seam aquifer.

Both roof seam and floor seam aquifers are saline and not it for use. Site treat a portion of dewatering borehole water for its use and a portion of untreated ground water is sent to adjacent power plant. Rest water from ground dewatering and surface dewatering is sent to Gorano area for disposal. A dewatering dam/lake has been created from the mine effluent disposal in Gorano area. Historically, there was no waterbody before the mining activity.

Site offices and residential area are supplied water from the treated (RO) water coming from ground dewatering bore. Site has a sewage treatment plant which collects wastewater from offices and residential areas and treat. The treated wastewater and (RO reject, brine) is used for gardening and dust suppression sprinkling within site boundaries.

Site has identified its catchment as Thar Coal Seam Aquifer, based on its extraction the Gorano area, the ultimate receiving body of site effluent falls within the identified catchment area.

Site has documented its boundaries and catchment map. Site also has documented its major water infrastructure in a block diagram. However, site has not documented/shared:
- Dewatering bore map/locations and dewatering piping network for both (ground and surface dewatering)
- Sewage network at site and connectivity of areas
- RO reject storage location and capacity

Finding No: TNR-014699

1.2 *Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.*

1.2.1 *Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall:*
- Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people;
- Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies;
- Provide evidence of stakeholder consultation on water-related interests and challenges;
- Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups;
- Identify the degree of stakeholder engagement based on their level of interest and influence.

closed

Comment: Site has documented the process of stakeholder identification. The site was not able identify its catchment correctly and considered Thar Coal Block II (the allocated rea for mining) as its catchment. Consequently, the stakeholders identified were focused on block 2 area only. Site updated the catchment area and stakeholder list during the audit. This resulted in numerus new stakeholders, however, these stakeholders were not yet consulted on their water related challenges. The prominent stakeholders not identified/ consulted are;- Nearby Communities to the Gorano water disposal area- Shanghai Electric (involved in coal mining and power generation in Thar Block 1 i.e. neighboring mining company) Also, it has been noted that the consultation process is are very initial stage. The information about the water related challenges are collected from only 4 stakeholders.

Finding No: TNR-014700

1.2.2 *Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site's ultimate water source and ultimate receiving water body for wastewater.*

Obs.

Comment: Site has documented degree of influence between site and stakeholder. However, the Gorano area community has not been identified as stakeholder, consequently the influence is not identified.

1.3 *Gather water-related data for the site, including: water balance; water quality, Important Water-Related Areas, water governance, WASH; water-related costs, revenues, and shared value creation.*

1.3.1 *Existing water-related incident response plans shall be identified.*

in progress

Comment: The site has identified mine flooding, contamination/spills, and water-related operational failures as potential incidents and provided response plans for the former two. However, response plans for operational failures, including those involving the RO and sewage treatment plants, are missing. Also the site has not considered potential incident of noncompliant effluent discharge from the site.

Finding No: TNR-014727

1.3.2 *Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped*

Yes

Comment: Site has mapped its water balance in clock diagram. This includes inflows, storages and outflows. However, site has not clearly mapped its water losses. Actually, site is extracting multiple times higher volumes of water than its consumption due to operational reasons (dewatering, necessary for open pit mining).

1.3.3 *Site water balance, inflows, losses, storage, and outflows, including indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an indication of annual high and low variances shall be quantified.*

closed

Comment

Site has quantified annual water balance for year 2023. his include. Actually, site is extracting multiple times higher volumes of water than its consumption due to operational reasons (dewatering, necessary for open pit mining). Site only consumes around 4 % of its consumption and rest is sent other industry (neighboring Power plant) or for disposal at Gorano area.
However, as mentioned in 1.1.1 site has not provided the details (piping and flow meters) of dewatering network. Apparently, the water extraction and discharge (to Gorano) values are estimated instead of reliably measured.

Finding No: TNR-014728

1.3.4 *Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.*

closed

Comment

Site's water source is ground water and site has shared the water quality reports for ground water. Site has only one discharge which includes excess water from ground and surface dewatering. Apparently stormwater runoff, drainage from mining area and vehicle parking area, as well as wastewater from equipment washing and sewage from potable toilets, is discharged to the ground . Site claims that only water from dewatering is discharged to Gorano pond and the quality test report shows turbidity below 1 NTU. However, during the physical visit of Gorano pond during the audit, the inlet was observed to be visually more turbid (highly opaque). It's known that the ground water is clear, therefore turbidity could come from ground dewatering or potentially other discharge streams. The Site has one sewage treatment plant but it is not connected to all the facilities, and the site has not provided the sewage network/piping connectivity of location connected to STP to understand the connections.

It is important that sufficient evidence was not provided on the site's monitoring program for its discharge. A separate quality report was provided. The parameters and values have not been referenced by any regulatory or international standard for discharges. Also, site has not quantified annual seasonal variance in its on its source and discharge water quality.

Finding No: TNR-014774

1.3.5 *Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.*

in progress

Comment

Site has identified fuels, lubricants and chemicals as potential sources of pollutions at site. Site shared the inventory of the stored materials with location of storage. Site also has mapped these locations.

Finding No: TNR-015214

1.3.6 *On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.*

Yes

Comment

Site has established a "Bashir Ansari Green Park" within its boundaries, which it describes as important water related area. This parked is irrigated by the saline water coming from ground dewatering of the mine. This park has some historical landmarks (coal initial exploration wells). Also, in the middle of desert this serves breeding ground for flora and fauna.

1.3.7 *Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.*

Yes

Comment

Site has summarized water related costs and revenues for year 2023. The costs include water extraction i.e., Dewatering Network Operational Cost, RO Plant operational cost, sewage treatment cost, cost associated to water disposed to Gorano, cost related to hydrogeological and quality investigations, costs of water related initiatives etc.
As explained in 1.1.1, site is suppling raw water to adjacent power plant, which is a source of water related revenue.

1.3.8	*Levels of access and adequacy of WASH at the site shall be identified.*	Obs.
Comment	Site has documented the access to WASH services for worker at site. Site also has documented the number of washrooms and drinking water availability at different locations. However, during the site visit the WASH arrangements (toilets, drinking water and handwash) for mine workers were found to be inadequate. Finding raised in 3.6.1.	
1.4	*Gather data on the site's indirect water use, including: its primary inputs; the water use embedded in the production of those primary inputs the status of the waters at the origin of the inputs (where they can be identified); and water used in out-sourced water-related services.*	
1.4.1	*The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.*	Yes
Comment	Site explained that no source of primary inputs in located in the site's catchment i.e. no embedded water consumption in the catchment.	
1.4.2	*The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.*	Yes
Comment	The outsourced services at site include laundry, kitchen facilities, LTV & HTV washing areas, and camp facilities. These services are all managed by third-party contractors, but they rely entirely on the water extracted and processed at site. There is no alternative water sources used for these outsourced activities. So no embedded water use of outsourced services.	
1.4.3	*Advanced Indicator* *The embedded water use of primary inputs in catchment(s) of origin shall be quantified.*	No
Comment	Site has not provided any information about this indicator.	
1.5	*Gather water-related data for the catchment, including water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH*	
1.5.1	*Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.*	in progress
Comment	Site has shared the "DEVELOPMENT MASTER PLAN FOR ISLAMKOT" which includes some basic information of water related governance areas like WASH, irrigation, wastewater and etc. Some broader target also mentioned in the in the master plan. However, specific water related governance initiatives in the catchment found not identified adequately. ***Finding No: TNR-015204***	
1.5.2	*Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.*	Yes
Comment	Site has identified applicable water-related legal and regulatory requirements. These include. - Sindh Environmental Protection Act 2014 - Environmental Sampling Rule, 2014 - SEPA conditions/guidelines against the NOC for mine project - The Mines act 1923 - Sindh Coal Mine rules, 2016	
1.5.3	*The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.*	in progress

Comment	Site has not quantified a meaningful water balance for its catchment. Instead, site shared "BANKABLE FEASIBILTY STUDY REPORT AUGUST-2010" which does not include the catchment water balance but some information about components of catchment water balance. Also, the report is of 2010 and data used is even of before 2010 which cannot present current scenario.	
	Finding No: TNR-014781	
1.5.4	*Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified.*	Yes
Comment	Site has collated the quality information of groundwater in the catchment. The site is located in a desert and no surface water bodies in the catchment except Gorano pond (created due to dewatering of mine). Mostly, the ground water is saline and not fit for human consumption. But in some areas of catchment having dune sand aquifer have usable water.	
1.5.5	*Important Water-Related Areas shall be identified, and where appropriate, mapped,and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.*	Yes
Comment	Site has identified and mapped Gorano pond and associated wetland as catchment IWRA. Site has identified the status of identified IWRA. Sit has also acknowledged that there are community concerns regarding the presence of saline water and community's perception of the site's possible impact on groundwater quality.	
1.5.6	*Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.*	closed
Comment	Site has not identified existing and planned water-related infrastructure in the catchment. Instead, site has provided demographic information of the catchment.	
	Finding No: TNR-014783	
1.5.7	*The adequacy of available WASH services within the catchment shall be identified.*	Yes
Comment	Site is located in a rural area, with limited WASH services. Being in the desert, the availability of water is a challenge. Another challenge is the available water is mostly saline and not fit for human consumption.th AWSH awareness is also not very good. Available latrines don't have water facilities. Handwashing facilities in toilets are almost unavailable. Overall hygiene conditions are not satisfactory	
1.5.8	*Advanced Indicator* *Efforts by the site to support and undertake catchment level water-related data collection shall be identified.*	No
Comment	Site has provided some other organization's work for catchment level water-related data collection but not explained their role in the data collection. None of the reports/publications shared contains collaborative work information. Site also shared "BANKABLE FEASIBILTY STUDY REPORT AUGUST-2010", a study at feasibility stage of project. But the data older than 15 years might not be very relevant in current circumstances.	
1.5.9	*Advanced Indicator* *The adequacy of WASH provision within the catchments of origin of primary inputs shall be identified.*	No
Comment	Sit has provided no information in 1.4.3, so this cannot be complied. Site apparently mixed this indicator requirement with 1.5.7.	
1.6	*Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.*	

1.6.1	*Shared water challenges shall be identified and prioritized from the information gathered.*	No
Comment	Site has identified shared water challenges, these include; - Insufficient access to safe drinking water - Limited water availability during Dry Seasons - Insufficient access to clean and safe toilets - Limited Awareness of Hygiene Practices - Poor Water Quality - Inefficient Water Recycling/Water Wastage. However, as explained in 1.2.1, only the stakeholders of thar coal block 2 area (instead of catchment) were considered for consultation on water related challenges. Consequently the community challenges were not identified. Based on interviews conducted and information in the public domain, the Gorano area community has a challenge related to site activities. As they are located in the catchment but not in the that coal brock 2 area, they were not identified as stakeholders and therefore were not consulted on the water related challenges. ***Finding No: TNR-014784***	
1.6.2	*Initiatives to address shared water challenges shall be identified.*	Yes
Comment	Site has documented the initiatives to address the shared water related challenges.	
1.6.3	*Advanced Indicator* *Future water issues shall be identified, including anticipated impacts and trends*	
Comment	Site has not provided any information about this indicator.	
1.6.4	*Advanced Indicator* *Potential water-related social impacts from the site shall be identified, resulting in a social impact assessment with a particular focus on water.*	No
Comment	Redacted for confidentiality reasons.	
1.7	*Understand the site's water risks and opportunities: Assess and prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues and future risk trends identified in 1.6.*	
1.7.1	*Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.*	Obs.
Comment	Site has identified water related risks and prioritized them based on likelihood and severity. The identified risks include; - Unavailability of Water - Drinking water contamination - Flooding - Inefficient Water Recycling - Community Opposition However, based on site spectrum of activities site needs to expand identified risk related to environmental compliances, effluent discharge, accidental spillages of potential pollutants and etc.	
1.7.2	*Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.*	in progress
Comment	The site has documented various water-related opportunities. However, the opportunities are not prioritized on the basis of potential savings, and business opportunities.	

Finding No: TNR-014786

1.8	*Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.*	
1.8.1	*Relevant catchment best practice for water governance shall be identified.*	Yes
Comment	The site is located in a desert where the agriculture is mostly dependent on rare rainfall. the ground water is mostly saline. Site has identified catchment best practice for water governance. These include: - Dua Foundation Agri Form (to promote water use practices in Arid area) - Climate Smart training program for farmers (for saline water agriculture) - Water conservation awareness drives	
1.8.2	*Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.*	Yes
Comment	The site is located in a rural desert area with the fresh water scarcity. Site has identified catchment best practice for water balance. These include: - Domestic waste water use for kitchen gardening - Treated sewage used for agriculture and gardening	
1.8.3	*Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.*	Yes
Comment	The site is located in a rural desert area with the limited access of clean drinking water. Site has identified catchment best practice for water quality. These include: - Use of Bio Sand Filter for drinking water in rural areas - Protection of fresh water well from contaminations	
1.8.4	*Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.*	Yes
Comment	Site has identified sectoral (mining) best for Important water related areas (IWRAs). these include; - Fish Farming in Water from dewatering of mines - Developing water bodies into recreational spots	
1.8.5	*Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.*	Yes
Comment	The site is located in a rural desert area with the limited access of WASH facilities. Site has identified catchment best practice for water WASH. These include: - RO plants for converting saline water to potable water - Installation of solar pumps for ground water extraction - Installation on hand pumps for community	

2	STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan	
2.1	*Commit to water stewardship by having the senior-most manager in charge of water at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.*	
2.1.1	*A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments:* *- That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes* *- That the site implementation will be aligned to and in support of existing catchment sustainability plans* *- That the site's stakeholders will be engaged in an open and transparent way* *- That the site will allocate resources to implement the Standard.*	✓ Yes
Comment	The site has established a commitment to water stewardship, documented and endorsed by the Site Leadership. The commitment covers all the element required by the AWS standard. Site has disclosed this commitment on its website (https://www.secmc.com.pk/wp-content/uploads/2024/09/Water-Stewardship.pdf)	
2.1.2	*Advanced Indicator* *A statement that explicitly covers all requirements set out in Indicator 2.1.1 and is signed by the organization's senior-most executive or governance body and publicly disclosed shall be identified.*	✓ Yes
Comment	The site has established a commitment to water stewardship, documented and endorsed by the organization's senior most executive i.e.CEO. The commitment covers all the element required by the AWS standard. Site has disclosed this commitment on its website (https://www.secmc.com.pk/wp-content/uploads/2024/09/Water-Stewardship.pdf)	
Score	1	
2.2	*Develop and document a process to achieve and maintain legal and regulatory compliance.*	
2.2.1	*The system to maintain compliance obligations for water and wastewater management shall be identified, including:* *- Identification of responsible persons/positions within facility organizational structure* *- Process for submissions to regulatory agencies.*	✗ No
Comment	Site's water related legal compliances are governed by Environment Management System that defines environment monitoring plan. As per requirement of regulator (SEPA), SECMC has hired Independent Environment Monitoring Consultant which conducts monitoring on Monthly Basis and submits its report to SEPA. Last report submitted for Aug is attached as evidence with its receiving. However, the audit team noted that only one parameter (TDS) is used for its mine effluent discharge quality monitoring. As indicated in 1.3.4, the site's quality monitoring parameters were not benchmarked against any local or international standards. ***Finding No: TNR-014791***	
2.3	*Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities.*	

2.3.1	*A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.*	Yes
Comment	Site has documented its water stewardship strategy, which defines the mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.	
2.3.2	*A water stewardship plan shall be identified, including for each target:* *- How it will be measured and monitored* *- Actions to achieve and maintain (or exceed) it* *- Planned timeframes to achieve it* *- Financial budgets allocated for actions* *- Positions of persons responsible for actions and achieving targets* *- Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.*	closed
Comment	Site has developed the water stewardship plan which includes actions, targets, financial budget and responsible. These initiatives cover both the actions related to site and the catchment. Also, site has established the link between WSP actions with shared water challenges and AWS outcomes. However, the timeline mentioned in water stewardship plan are not clearly identified. A date is mentioned for each action apparently (from audit discussion) is date of completion or target date of completion. This is sites first ever water stewardship plan, but it contains some actions those were completed more than a year before. Only 2 actions found to be in progress having target dates for Q4 2024 and Q1 2025. One can conclude that only 2 actions are planned for water stewardship which is not proportionate with site scope of work and shared water challenges. ***Finding No: TNR-014800***	
2.3.3	*Advanced Indicator* *The site's partnership/water stewardship activities with other sites within the same catchment (which may or may not be under the same organisational ownership) shall be identified and described.*	Yes
Comment	SECMC (Sindh Engro Coal Mining Company) has established a strategic partnership with the Xinjiang Institute of Ecology to advance the sustainable utilization of halophytes in the Thar Desert. This collaboration aims to harness the unique properties of halophytes, which are plants that thrive in saline conditions, to mitigate the challenges posed by water scarcity in the region. Site also has engaged with other organizations and community for raising awareness about saline agriculture and has donated plant sapling	
Score	4	
2.3.4	*Advanced Indicator* *The site's partnership/water stewardship activities with other sites in another catchment(s) (either under same corporate structure or with another corporate site) shall be identified.*	Yes
Comment	SECMC (Sindh Engro Coal Mining Company) has established a strategic partnership with the Xinjiang Institute of Ecology to advance the sustainable utilization of halophytes in the Thar Desert. This collaboration aims to harness the unique properties of halophytes, which are plants that thrive in saline conditions, to mitigate the challenges posed by water scarcity in the region.	
Score	4	
2.3.5	*Advanced Indicator* *Stakeholder consensus shall be sought on the site's water stewardship plan. Consensus should be achieved on at least one target. A list of targets that have consensus and in which stakeholders are involved shall be identified.*	No

Comment	Site has not provided any information about this indicator.

2.4 *Demonstrate the site's responsiveness and resilience to respond to water risks*

2.4.1 *A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.*

in progress

Comment: The site has identified water related risks in 1.7.1. However, no evidence provided that plan to mitigate with identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies

Finding No: TNR-014803

2.4.2 *Advanced Indicator*
A plan to mitigate or adapt to water risks associated with climate change projections developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.

Yes

Comment: Considering the increasing trend of rainfall in the Thar Parkar region, especially around Islamkot, SECMC has played a proactive role in supporting local communities by assisting the Islamkot local representatives in developing a comprehensive Rain Contingency Plan. This plan addresses the heightened risks posed by excessive rainfall, which has the potential to cause localized flooding and disrupt critical infrastructure.

Score: 6

3	**STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts**	
3.1	*Implement plan to participate positively in catchment governance.*	
3.1.1	*Evidence that the site has supported good catchment governance shall be identified.*	Yes
Comment	SECMC has been actively supporting the catchment water governance initiative. - Partnership with Thar Foundation for water infrastructure development in villages - Incubating Bio-saline agriculture techniques, training local farmers and advocating in the catchment	
3.1.2	*Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.*	Obs.
Comment	SECMC in not legally bound to protect water rights of others, however, there are concerns in the community near the Gorano ponds (dewatering disposal site), around a possible impact of the saline water disposal into the pond, on increasing salinity of water in part of the wells in the dune sand aquifer. The aquifer serves as a traditional source of fresh water. The impact or its extent is a subject of ongoing dispute. This dispute was contested in the court of law and the decision is in favor of the SECMC. But the community has filed a review petition in superior court.	
3.1.3	*Advanced Indicator* *Evidence of improvements in water governance capacity from a site-selected baseline date shall be identified.*	No
Comment	Site has not provided any information about this indicator.	
3.1.4	*Advanced Indicator* *Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the good water governance of the catchment shall be identified.*	Yes
Comment	Site has provided consciences from three stakeholders that site is contributing positively in catchment water governance. -The conscious came from representative of Private Power and Infrastructure Board (PPIB) (not included in AWS stakeholders) on SCEMC partnership with Thar foundation about the water infrastructure improvement and WASH project in the catchment. - The conscious came from representative the Xinjiang Institute of Ecology on success of bio saline agriculture - The conscious came from local community member on success of bio saline agriculture for cattle feeding	
Score	2	
3.2	*Implement system to comply with water-related legal and regulatory requirements and respect water rights.*	
3.2.1	*A process to verify full legal and regulatory compliance shall be implemented.*	closed
Comment	Redacted for confidentiality reasons.	***Finding No: TNR-014810***
3.2.2	*Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples, shall be implemented.*	No

Comment — Company is legally bound to provide "At every coal mine, a sufficient supply of wholesome and cool drinking water shall be provided and maintained on the surface and underground for all work-person at suitable points close to the place where they are employed. Drinking water shall in all cases be supplied to employees free of cost and shall be periodically examined by qualified medical practitioner who shall certify in writing that it is wholesome or not." However, during the site visit the WASH arrangements (toilets, drinking water and handwash) for mine workers were found to be inadequate. Drinking water was kept in dirty containers with no traceability of its sourcing, inspection or quality testing. Workers also complained about the bad drinking water quality. Also, no water or hand wash arrangements were provided near onsite (mine) toilets.

Finding No: TNR-014811

3.3 *Implement plan to achieve site water balance targets.*

3.3.1 *Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.* — in progress

Comment — Site has mentioned 3 actions in the water stewardship plan related to water balance however the targets found not be well defined. All three actions were completed 2023 but no validation on saving is possible. Site explained that "Completed however due to absence of monitoring exact impact of reduction in water intensity specific to this can't be calculated."

Finding No: TNR-014812

3.3.2 *Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use shall be implemented.* — Obs.

Comment — As mentioned in 1.5.3, site has not identified water balance of its catchment. Apparently, fresh water is scarce in the catchment, but saline water is available and site source of water is saline water. Site has not set annual targets to improve the site's water use efficiency.

3.3.3 *Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.* — Yes

Comment — Site explained that no such legal binding applicable.

3.3.4 *Advanced Indicator*
The total volume of water voluntarily re-allocated (from site water savings) for social, cultural and environmental needs shall be quantified. — No

Comment — Site has not provided any information about this indicator.

3.4 *Implement plan to achieve site water quality targets*

3.4.1 *Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.* — closed

Comment — Site has mentioned some water quality related actions in its water stewardship plan, but no water quality improvement targets set in water stewardship plan.

Finding No: TNR-014814

3.4.2 *Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be identified and where applicable, quantified.* — closed

Comment — Site has only one discharge which includes excess water from ground and surface dewatering. Apparently stormwater runoff, drainage from mining area and vehicle parking area, as well as wastewater from equipment washing and sewage from potable toilets, is discharged to the ground. However, site has not demonstrated continual improvement to achieve best practice for the site's effluent.

Finding No: TNR-014815

3.5 *Implement plan to maintain or improve the site's and/or catchment's Important Water-Related Areas.*

3.5.1 *Practices set in the water stewardship plan to maintain and/or enhance the site's Important Water-Related Areas shall be implemented.* — Yes

Comment: Site has established a "Bashir Ansari Green Park" within its boundaries, which it describes as important water related area. This parked is irrigated by the saline water coming from ground dewatering of the mine. This park has some historical landmarks (coal initial exploration wells). Also, in the middle of desert this serves breeding ground for flora and fauna. Site has allocated adequate resources to maintain the area.

3.5.2 *Advanced Indicator*
Evidence of completed restoration of non-functioning or severely degraded Important Water-Related Areas including where appropriate cultural values from a site-selected baseline date shall be identified. Restored areas may be outside of the site, but within the catchment. — No

Comment: Site has not provided any information about this indicator.

3.5.3 *Advanced Indicator*
Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the healthy status of Important Water-Related Areas in the catchment shall be identified. — Yes

Comment: SECMC is responsible for operation and maintenance of pipeline and Gorano pond area (the identified IWRA in the catchment), which is providing breeding grounds for bird and hosting flora and fauna in the area.
International Union for Conservation of Nature (IUCN) survey report of Gorano pond shows the consensus that the site is seen as positively contributing to the healthy status of Gorano Dam, Important Water-Related Areas in the catchment

Score: 2

3.6 *Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all premises under the site's control.*

3.6.1 *Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.* — No

Comment: It was noted during the site visit that the WASH arrangements (toilets, drinking water and handwash) for mine workers are not adequate. Drinking water was kept in dirty containers with no traceability of its sourcing, inspection or quality testing. Workers also complained about the bad drinking water quality. Also, no water or hand wash arrangements were provided near onsite (mine) toilets.

Finding No: TNR-014816

3.6.2 *Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.* — in progress

Comment	During the stakeholder interview, the community representative reported that the Gorano area contains a dune sand aquifer, which previously served as a source of fresh drinking water for the local population. However, due to the disposal of water with salinity levels higher than that of the dune sand groundwater, from dewatering activities in the area, the aquifer has reportedly become brackish and is no longer suitable for consumption. SECMC maintains that its operations do not infringe upon the community's human right to safe water and sanitation, and that the traditional access rights of indigenous and local communities are being upheld. This dispute between the community and SECMC has been litigated, with the court ruling in favor of SECMC. However, the community has filed a review petition with a higher court, which is currently pending. The audit team requested historical water quality data for the dune sand aquifer from SECMC. However, such data was not made available to the auditors. As part of its Corporate Social Responsibility (CSR) initiatives and in response to concerns regarding the potential impact of saline water disposal, SECMC has installed six reverse osmosis (RO) water filtration plants in the communities surrounding the Gorano Pond, aiming to provide access to safe drinking water. Furthermore, site management has reported plans to reduce the volume of effluent disposal by increasing the internal use of mine dewatering water and improving the utilization of onsite buffer ponds.

Finding No: TNR-014817

3.6.3	*Advanced Indicator* *A list of actions taken to support the provision to stakeholders in the catchment of access to safe drinking water, adequate sanitation and hygiene awareness shall be identified.*	✓ Yes
Comment	Site has supported community RO drinking water stations at different location in the catchment, by signing operations and maintenance contract with contractor. This is huge contribution to support WASH provision.	
Score	5	
3.6.4	*Advanced Indicator:* *In catchments where WASH has been identified as a shared water challenge, evidence of efforts taken with relevant public-sector agencies to share information and to advocate for change to address access to safe drinking water and sanitation shall be identified.*	↗ No
Comment	Site provided information about the efforts of Thar Foundation, related to WASH advocacy. However, site has not provided any information about SCEMC participation in these efforts.	
3.7	*Implement plan to maintain or improve indirect water use within the catchment:*	
3.7.1	*Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.*	✓ Yes
Comment	As mentioned in 1.4.1 and 1.4.2, site has no indirect water use in the catchment. Consequently, no such targets exist.	
3.7.2	*Evidence of engagement with suppliers and service providers, as well as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be identified.*	✓ Yes
Comment	As mentioned in 1.4.1 and 1.4.2, site has no indirect water use in the catchment. Consequently, no such engagements required.	
3.7.3	*Advanced Indicator* *Actions taken to address water related risks and challenges related to indirect water use outside the catchment shall be documented and evaluated.*	↗ No
Comment	Site has not provided any information about this indicator.	

3.8 *Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.*

3.8.1 *Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.*

closed

Comment Site has not provided evidence of engagement with owner of any shared water-related infrastructure of any concerns. Site insist that no external water infrastructure is used, and site is self-sufficient for water related infrastructure. In the meantime, site avoid responsibility of compliances related to Gorano disposal network and pond as it is not owned by the company.

Finding No: TNR-014818

3.9 *Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.*

3.9.1 *Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.*

Yes

Comment SECMC has been actively supporting the catchment water governance initiative. Follwoing intiatives can be considered as catchment best practices.
- Partnership with Thar Foundation for water infrastructure development in villages
- Incubating Bio-saline agriculture techniques, training local farmers and advocating in the catchment

3.9.2 *Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.*

Yes

Comment Site has implemented following initiatives, which can be considered as best practices.
- Recycling of treated sewage for gardening at site
- implementation of drip irrigation techniques for better water efficiency in agriculture in Green Park

3.9.3 *Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.*

closed

Comment Site has not presented any initiatives those can be considered as best practices for water quality improvements. Infact, site is not following sectoral best practices in monitoring and treatment of mining effluent.

Finding No: TNR-014871

3.9.4 *Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.*

Yes

Comment SECMC is responsible for operation and maintenance of pipeline and Gorano pond area (the identified IWRA in the catchment), which is providing breeding grounds for bird and hosting flora and fauna in the area.
International Union for Conservation of Nature (IUCN) survey report of Gorano pond shows the consensus that the site is seen as positively contributing to the healthy status of Gorano Dam, Important Water-Related Areas in the catchment.

In coordination with Thar Foundation and livestock department, SCEMC has started adding fish seedlings to the Gorano pond which has resulted in providing fish to the communities.

but not responsible for legal compliance of disposal ponds (Gorano Area).

3.9.5 *Actions towards achieving best practice related to targets in terms of WASH shall be implemented.*

Yes

Comment	SECMC has adopted community RO drinking water stations at different location in the catchment, by signing operations and maintenance contract with contractor. This is huge contribution to support WASH provision.	
3.9.6	*Advanced Indicator* *Achievement of identified best practice related to targets in terms of good water governance shall be quantified.*	Yes
Comment	The site is located in a desert where the agriculture is mostly dependent on rare rainfall. the ground water is mostly saline.SECMC (Sindh Engro Coal Mining Company) has established a strategic partnership with the Xinjiang Institute of Ecology to advance the sustainable utilization of halophytes in the Thar Desert. This collaboration aims to harness the unique properties of halophytes, which are plants that thrive in saline conditions, to mitigate the challenges posed by water scarcity in the region. Following are the achievements for these initiatives; - Successful Trial of more than 10 Species including Apple Ber, Rhodes Grass, Sesbania Grass, Aloe vera, Castor Oil seeds, Sunflower, Cluster Bean etc. - Apple Ber was successfully grown on 10 Acres in collaboration with PARC and yielded 23.5 Tonnes in 2023 and approx. 30 Tonnes in 2024; Another was Sesbania Grass that yielded 7 Tonnes in 2023 and 6.5 Tonnes per acre till date in 2024 - Partnership was done with PARC, Xinjiang, ISHU-KU etc. - 01 Research article was published in Dec 2023 in MDPI	
Score	8	
3.9.7	*Advanced Indicator* *Achievement of identified best practice related to targets in terms of sustainable water balance shall be quantified.*	No
Comment	Site has not reliably quantified water savings or efficiency improvements as required by this indicator.	
3.9.8	*Advanced Indicator* *Achievement of identified best practices related to targets in terms of water quality shall be quantified*	No
Comment	as mentioned in 3.9.3, Sit has not implemented actions those can be considered as best practices for water quality improvement.	
3.9.9	*Advanced Indicator* *Achievement of identified best practices related to targets in terms of the site's maintenance of Important Water-Related Areas have been implemented.*	Yes
Comment	As mentioned in 3.9.4, SECMC has worked to improve biodiversity of the Gorano pond/dam. Site work has been appreciated by different stakeholders. However, the quantified achievement has not been established.	
Score	5	
3.9.10	*Advanced Indicator* *Achievement of identified best practice related to targets in terms of WASH shall be quantified.*	Yes
Comment	SECMC has adopted 19 community RO drinking water stations at different location in the catchment, by signing operations and maintenance contract with contractor. This is huge contribution to support WASH provision.	
Score	4	
3.9.11	*Advanced Indicator* *A list of efforts to spread best practices shall be identified.*	Yes

Comment	SECMC regularly invites journalists, photographers, and media representatives to visit its initiatives. These visits allow the media to observe firsthand the sustainable initiatives, such as water management, biosaline agriculture, aquaculture, and the operation of RO plants. This approach increases public awareness and spreads best practices through media coverage. Also, SECMC actively engages with local communities in Tharparkar by providing educational programs on water conservation and hygiene. These programs not only raise awareness but also equip local populations with practical knowledge to implement sustainable water practices.
Score	3

3.9.12 *Advanced Indicator*

A list of collective action efforts, including the organizations involved, positions of responsible persons of other entities involved, and a description of the role played by the site shall be identified.

No

Comment: Site has not provided any information about this indicator.

3.9.13 *Advanced Indicator*

Evidence of the quantified improvement that has resulted from the collective action relative to a site-selected baseline date shall be identified and evidence from an appropriate range of stakeholders linked to the collective action (including both those implementing the action and those affected by the action) that the site is materially and positively contributing to the achievement of the collective action shall be identified.

No

Comment: Site has not provided any information about this indicator.

4	STEP 4: EVALUATE - Evaluate the site's performance.	
4.1	*Evaluate the site's performance in light of its actions and targets from its water stewardship plan and demonstrate its contribution to achieving water stewardship outcomes.*	
4.1.1	*Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.*	in progress
Comment	A mentioned in 2.3.2, site has not set actions and targets in its water stewardship plan, adequately. Also, site has not provided/compiled details of performance against targets in the site's water stewardship plan. ***Finding No: TNR-014872***	
4.1.2	*Value creation resulting from the water stewardship plan shall be evaluated.*	in progress
Comment	Site has not evaluated Value creation resulting from the site's water stewardship plan. ***Finding No: TNR-014873***	
4.1.3	*The shared value benefits in the catchment shall be identified and where applicable, quantified.*	Yes
Comment	SECMC has evaluated shared value benefits from Bio-Saline agriculture and adoption of public water RO plants.	
4.1.4	*Advanced Indicator* *A governance or executive-level review, including discussion of shared water challenges, water risks, and opportunities, and any water-related cost savings or benefits realized, and any relevant incidents shall be identified.*	No
Comment	Site has minutes of meeting of HSE committee, in which an info found to be "Shared water challenges and water stewardship plan was discussed" without any details. This does not suffice the requirement of this indicator.	
Score	3	
4.2	*Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.*	
4.2.1	*A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.*	Yes
Comment	Site representative explained that no real time water related emergency incident or extreme event occurred, hence no such evaluation available.	
4.3	*Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.*	
4.3.1	*Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.*	in progress
Comment	As mentioned in 4.1.1, site has not evaluated performance against targets in the site's water stewardship plan. Consequently, no such consultation can take place. Instead, site provided some evidence of communication of its water stewardship plan with stakeholders. ***Finding No: TNR-014874***	

4.3.2	*Advanced Indicator* *The site's efforts to address shared water challenges shall be evaluated by stakeholders. This shall include stakeholder reviewing of the site's efforts across all five outcome areas, and their suggestions for continual improvement.*	Yes
Comment	Site has consulted the stakeholders on its effort to address shared water challenges. Stakeholders' evaluations have been compiled in summary sheet(attached). However, site has not documented the suggestions for continual improvement.	
Score	4	
4.4	*Evaluate and update the site's water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.*	
4.4.1	*The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified.*	Yes
Comment	Site has made its first ever water stewardship plan. The initial plan was not well documented and was updated during the audit.	

5	STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site's stewardship efforts	
5.1	*Disclose water-related internal governance of the site's management, including the positions of those accountable for legal compliance with water-related local laws and regulations.*	
5.1.1	*The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.*	closed
Comment	Site has disclosed water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations on its website. ***Finding No: TNR-014875***	
5.2	*Communicate the water stewardship plan with relevant stakeholders.*	
5.2.1	*The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.*	Yes
Comment	Site has communicated water stewardship plan with the identified stakeholders most through engagements and emails.	
5.3	*Disclose annual site water stewardship summary, including: the relevant information about the site's annual water stewardship performance and results against the site's targets.*	
5.3.1	*A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.*	in progress
Comment	Site has not disclosed summary of its water stewardship performance at any appropriate platform. ***Finding No: TNR-014876***	
5.3.2	*Advanced Indicator* *The site's efforts to implement the AWS Standard shall be disclosed in the organization's annual report.*	No
Comment	Site has not disclosed its efforts to implement the AWS Standard in the organization's annual report.	
5.3.3	*Advanced Indicator* *Benefits to the site and stakeholders from implementation of the AWS Standard shall be quantified in the organization's annual report.*	No
Comment	Site has not provided any information about this indicator.	
5.4	*Disclose efforts to collectively address shared water challenges, including: associated efforts to address the challenges;engagement with stakeholders; and co-ordination with public-sector agencies.*	
5.4.1	*The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.*	in progress
Comment	Site has communicated the shared water challenges with some stakeholders but not disclosed at any appropriate platform. ***Finding No: TNR-014877***	
5.4.2	*Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.*	in progress

Comment	Site has not documented efforts made by the site to engage stakeholders and coordinate and support public-sector agencies. ***Finding No: TNR-014878***	
5.5	*Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.*	
5.5.1	*Any site water-related compliance violations and associated corrections shall be disclosed.*	Yes
Comment	Site representative explained that site has no compliance violation in recent past.	
5.5.2	*Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.*	Yes
Comment	Site representative explained that site has no compliance violation in recent past.	
5.5.3	*Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to relevant public agencies and disclosed.*	Yes
Comment	Site representative explained that site has no compliance violation in recent past.	

Photographic Evidence from Audit

Yes

Fuel Storage.jpeg

Site Mine Effulent Discharge Point.jpeg

Poor drinking water arrangement in Parking area.jpeg

Poor drinking water arrangement in Parking area 1.jpeg

Open-Pit Mine water collected in bottom.jpeg

Surface dewatering from open-Pit mine's bottom.jpeg

Toilet in Mine area.jpeg

Toilet in Mine area 1.jpeg

Toilet in Parking area.jpeg

Poor drinking water arrangement in mining area 1.jpeg

Stakeholder interviews (Cummunity at Gorano area).jpeg

Gorano Area Dewatering ultimate discharge area (DAM).jpeg

Poor drinking water arrangement in mining area.jpeg

Gorano Area Dewatering ultimate discharge point.jpeg

Stakeholder Interview (SEPA).jpeg

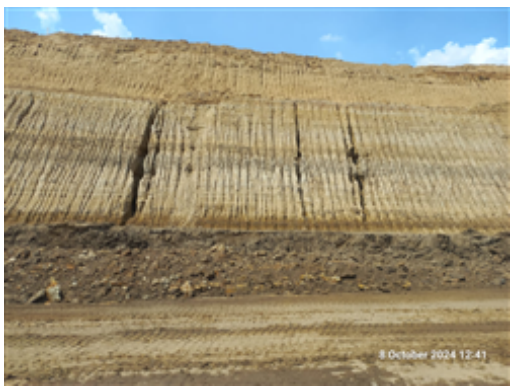
RO Plant for portable water.jpeg

Sewage treatment plant discharge.jpeg

Site Mine Effulent Discharge Point 1.jpeg

Parking area toilet drain in open.jpeg

Poor drinking water arrangement in mining area 2.jpeg



Top Seam Aquafer exposed in open pit mine.jpeg

Gorano Area Dewatering ultimate discharge point 1.jpeg

Open Pit Mine.jpeg

Upgrade or Downgrade of Certification

Justification for Upgrade or Downgrade

Summary of Evidence which led to change

Previous Findings

All non-conformities raised in the previous audit have been satisfactorily closed.

N/A