

November 9, 2020

# Al Ghabawi Septic Tank Facility Project: Feasibility Study & Technical Tender Support

Environmental and Social Action Plan (ESAP)



## **WATER AUTHORITY OF JORDAN (WAJ)**

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## Abbreviations

AGTP	Ain Ghazal Treatment Plant
CESMP	Construction Environmental and Social Management Plan
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
E&S	Environmental and Social
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
ESAP	Environmental and Social Action Plan
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
GIP	Good International Practice
JS	Jordanian Standard
MoEnv	Ministry of Environment
MWI	Ministry of Water and Irrigation
PR	Performance Requirement
WAJ	Water Authority of Jordan
WWTP	Waste Water Treatment Plant

Table1. Environmental and Social Action Plan (ESAP)

No.	Action	Environmental and Social Risks (Liability/Benefits)	Requirement (Legislative, EBRD PR, Best Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
<b>PR1</b>	<b>Assessment and Management of Environmental and Social Impacts and Issues</b>						
1.1	<ul style="list-style-type: none"> <li>-If required by the Ministry of Environment (MoEnv), and to reflect the final design, update and resubmit the ESIA report for the Project to the MoEnv to meet the requirements of the national legislation and to obtain the environmental permit for the Project.</li> <li>- Ensure all necessary permits and approvals for the Project are in place.</li> </ul>	<ul style="list-style-type: none"> <li>-Adequate assessment of environmental and social<sup>1</sup> (E&amp;S) impacts and adoption of the necessary mitigation and management measures.</li> <li>- Project is fully permitted.</li> </ul>	<ul style="list-style-type: none"> <li>-Jordanian Legislation and EIA Regulation No. 37 of 2005</li> <li>- EBRD Performance Requirements (PR) 1</li> </ul>	<ul style="list-style-type: none"> <li>- WAJ via an accredited Consultant</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental permit issued prior to commencement of construction.</li> </ul>	<ul style="list-style-type: none"> <li>-ESIA updated and resubmitted to the MoEnv, if required.</li> <li>-Environmental approval/permit from MoEnv for the Project.</li> <li>-All necessary permits and approvals for the Project in place.</li> <li>-Updated ESIA satisfactory to EBRD.</li> <li>- Updated ESIA report made available to stakeholders.</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>-Assess the potential for environmental and social risks within the Project's primary supply chain during construction and operation, including the use of child and forced labour.</li> </ul>	<ul style="list-style-type: none"> <li>- Assessment and management of supply chain risk.</li> </ul>	<ul style="list-style-type: none"> <li>-PR1, PR2 and PR4</li> <li>-ILO Core standards</li> <li>- Jordanian Labour Law</li> </ul>	<ul style="list-style-type: none"> <li>- WAJ with support from the project implementation consultant</li> </ul>	<ul style="list-style-type: none"> <li>- Prior to selection of suppliers to the Project.</li> </ul>	<ul style="list-style-type: none"> <li>-Supply chain risk assessment</li> <li>-Risk controls included in all project tenders and contracts.</li> </ul>	

<sup>1</sup> Social refers to those issues which pertain to project-affected people and their communities and workers and related to socioeconomic status, vulnerability, gender identity, human rights, sexual orientation, cultural heritage, labour and working conditions, health and safety and participation in decision making.

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	- Where risks are identified, define measures to avoid and reduce such risk, including the use of tender and contract obligations.					- Monitoring procedure in place and correction actions implemented.	
1.3	<ul style="list-style-type: none"> <li>- Develop and implement a Project-specific environmental and social management system (s) (ESMS) for the construction and operation phases of the Project.</li> <li>- The ESMS will be developed in line with the EBRD PRs and good international practice (e.g. ISO) and will be commensurate with Project risks and impacts.</li> <li>- The ESMS should draw on the Project ESIA and include all necessary measures to mitigate, manage, monitor and report on E&amp;S risks and impacts associated with the construction and operational phase of the Project.</li> </ul>	- Management system approach to E&S risk and impact management	<ul style="list-style-type: none"> <li>- EBRD PR1</li> <li>- Jordanian laws</li> <li>- Good international practice</li> </ul>	<ul style="list-style-type: none"> <li>- Construction: WAJ with support from the project implementation consultant and the Project contractor</li> <li>- Operational: WAJ with support from the project implementation consultant and the Project operator</li> </ul>	<ul style="list-style-type: none"> <li>- Developed prior to commencement of construction.</li> <li>- Developed prior to commencement of operations</li> </ul>	<ul style="list-style-type: none"> <li>- Appropriate E&amp;S management system in place for the construction and operational phases of the Project.</li> <li>- ESMS documentation.</li> </ul>	

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1.4	<ul style="list-style-type: none"> <li>- Develop and implement a Project-specific Construction Environmental and Social Management Plan (CESMP).</li> <li>- The CESMP should draw on the ESMP developed as part of the Project ESIA and include all necessary measures to mitigate, manage, monitor and report on E&amp;S risks and impacts associated with the construction phase of the Project.</li> <li>- Ensure the integration of E&amp;S management requirements in contractor contracts.</li> </ul>	<ul style="list-style-type: none"> <li>- Construction E&amp;S risk and impact management</li> </ul>	<ul style="list-style-type: none"> <li>- PR1</li> <li>- Jordanian laws</li> <li>- Good international practice</li> </ul>	<ul style="list-style-type: none"> <li>- To be prepared by the Project contractor</li> <li>- To be approved by WAJ with support from the project implementation consultant</li> <li>- To be monitored by WAJ with support from the project implementation consultant</li> </ul>	<ul style="list-style-type: none"> <li>- Developed and approved prior to commencement of construction.</li> <li>- Implemented during construction.</li> </ul>	<ul style="list-style-type: none"> <li>- Contractor contract includes development and implementation of CESMP in accordance with national laws and EBRD PRs.</li> <li>- WAJ approved CESMP in place and implemented.</li> <li>- E&amp;S management requirements included in contractor contracts.</li> <li>- Implementation performance reported to EBRD (ESAP action 1.6).</li> </ul>	
1.5	<ul style="list-style-type: none"> <li>- Develop and implement a worker E&amp;S training plan for the construction and operation phases.</li> </ul>	<ul style="list-style-type: none"> <li>- E&amp;S risk and impact management training</li> </ul>	<ul style="list-style-type: none"> <li>- PR1</li> </ul>	<ul style="list-style-type: none"> <li>- Developed and implemented during construction and early operation by the project implementation consultant with WAJ support.</li> <li>- Updated as required by Project operator.</li> </ul>	<ul style="list-style-type: none"> <li>- Before and during construction and operation and as needed</li> </ul>	<ul style="list-style-type: none"> <li>- Training plans available and implemented.</li> <li>- Training register log and training completion letters.</li> </ul>	

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1.6	- Submit an E&S report to the EBRD on the E&S performance of the Project, its contractor, compliance with the PRs and implementation of this ESAP.	- E&S performance and monitoring	- PR1	- For construction and first year of operation: Project implementation consultant with support of WAJ and Project operator. - Thereafter: WAJ with support of Project operator.	- For construction and first year of operation: Every four months. - Thereafter: Annually within 90 days of financial year end.	- E&S report satisfactory to the EBRD. - Satisfactory implementation of this ESAP.	
<b>PR2</b>	<b>Labour and Working Conditions</b>						
2.1	- Include in construction contractor contracts requirements on human resources matters to ensure compliance with PR2, including child labour and forced labour. - Review the HR policy and procedures of the construction contractor on appointment to ensure PR compliance. Monitor performance. - Ensure appropriate HR policies and procedures are in place for the operator of the Project and in compliance with PR2 requirements.	- Avoid labour risks and ensure appropriate labour and working conditions.	- PR2	- Construction: Project implementation consultant and contractor - Operation: operator with support of project implementation consultant and WAJ.	- Prior to Construction - Prior to Operation	- HR Policy and procedures in place for the Contractor and the Operator that comply with PR2.	

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2.2	<ul style="list-style-type: none"> <li>- Develop and implement a grievance mechanism for workers, including contractors and sub-contractors, for implementation during the construction and operational phases of the Project.</li> <li>- Communicated the mechanism to workers and maintain a record of grievances, actions and responses, etc.</li> </ul>	- Grievance management	- PR2	<ul style="list-style-type: none"> <li>- Construction: WAJ with support of project implementation consultant and contractor</li> <li>- Operation: Project operator and WAJ oversight.</li> </ul>	<ul style="list-style-type: none"> <li>- Prior to construction</li> <li>- Prior to operations</li> </ul>	<ul style="list-style-type: none"> <li>- Grievance mechanism communicated to construction workers and employees.</li> <li>- Grievance log maintained.</li> <li>- WAJ to monitor grievances on monthly basis.</li> </ul>	
2.3	<ul style="list-style-type: none"> <li>- Develop a construction phase Labour and Employment Plan (LEP). The LEP will describe the potential opportunities, the required skills and qualifications and the Project's recruitment policy.</li> <li>- The LEP will be communicated to local communities to maximum local recruitment.</li> <li>- For operations, the operator will endeavour to recruit workers from the local communities.</li> </ul>	- Labour opportunities.	- PR2	<ul style="list-style-type: none"> <li>- To be prepared by the contractor.</li> <li>- To be reviewed, approved and monitored by WAJ with support from project implementation consultant.</li> </ul>	<ul style="list-style-type: none"> <li>- Prior to construction, and throughout construction</li> <li>- Prior to and during operations.</li> </ul>	<ul style="list-style-type: none"> <li>- LEP in place and implemented.</li> <li>- Records maintained of local recruitment.</li> </ul>	

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<b>PR3</b>	<b>Resource Efficiency and Pollution Prevention and Control</b>						
3.1	- Develop and implement procedures for construction waste management and disposal.	- Appropriate management of project waste.	- Jordanian Legislation - Regulation of Solid Waste Management No. 27 for the year 2005 - PR3	- To be prepared and implemented by the contractor. - To be reviewed, approved and monitored by WAJ with support from the project implementation consultant.	- Prior to construction - During construction phase	- Implementation of waste management procedures and duty of maintaining care records for waste disposal quantities and types.	
3.2	- During construction (once per month) conduct at the Project construction site 24-hour air quality monitoring for Particulate Matter (PM <sub>2.5</sub> ), H <sub>2</sub> S, NH <sub>3</sub> , and noise levels.	- Monitoring project impacts.	- Jordanian standards and instructions - PR3	- Contractor to carry out the air quality and noise level measurements - WAJ to monitor the implementation of this requirement with support of project implementation consultant.	- During construction (monthly)	- Availability of records of carried measurements that show comparisons to Jordanian ambient air quality standard (JS 1140:2006) and Jordanian Instruction for Reduction and Prevention of Noise for 2003. - Results reported to EBRD (ESAP action 1.8).	



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3.3	<ul style="list-style-type: none"> <li>- Develop and implement an air quality monitoring programme that covers PM<sub>2.5</sub>, H<sub>2</sub>S, and NH<sub>3</sub> for the operation phase along with having an odour monitoring committee in place. The frequency of monitoring will be determined in consultation with MoEnv and MWI.</li> </ul>	<ul style="list-style-type: none"> <li>- Odour nuisance management and monitoring</li> </ul>	<ul style="list-style-type: none"> <li>- Jordanian Standards (JS 1140/2006)</li> <li>- Jordanian labour laws</li> <li>- PR3 and PR4</li> </ul>	<ul style="list-style-type: none"> <li>- Project operator during operation through an accredited laboratory</li> </ul>	<ul style="list-style-type: none"> <li>- Prior to commencement and throughout operation</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of records of air quality measurements that show compliance with Jordanian ambient air quality standard (JS 1140:2006).</li> <li>- Reports showing that the Odour monitoring committee are meeting and documenting their findings.</li> <li>- Review of any grievances on a monthly basis.</li> </ul>	
3.4	<ul style="list-style-type: none"> <li>- Prepare and implement emergency response plans addressing accidental spills/leaks/releases of chemicals and effluent during construction and operation.</li> <li>- The plans will also include incident investigation and reporting procedures.</li> </ul>	<ul style="list-style-type: none"> <li>- Prevention of soil and groundwater contamination.</li> </ul>	<ul style="list-style-type: none"> <li>- PR3</li> </ul>	<ul style="list-style-type: none"> <li>- Construction: To be prepared and implemented by the Contractor and reviewed, approved and monitoring by WAJ with the support of the project implementation consultant.</li> <li>- Operation: By project operator.</li> </ul>	<ul style="list-style-type: none"> <li>- Prior to commencement of construction</li> <li>- Prior to commencement of operations</li> </ul>	<ul style="list-style-type: none"> <li>- Emergency response procedures developed and implemented.</li> </ul>	

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3.5	<ul style="list-style-type: none"> <li>- Prepare and implement a treated wastewater reuse plan.</li> <li>- The plan will be informed by appropriate stakeholder engagement (i.e. with communities and potential effluent users).</li> <li>- The plan will, where necessary, include controls and mitigation measures depending on the intended use of wastewater.</li> </ul>	- Encourage treated effluent reuse	<ul style="list-style-type: none"> <li>- Jordanian standard (JS 893/2006)</li> <li>- PR3</li> </ul>	- To be prepared by WAJ. The plan will determine implementation entity.	- During Project construction period	<ul style="list-style-type: none"> <li>- Treated wastewater reuse plan in place.</li> <li>- Infrastructure developed, where required.</li> </ul>	
3.6	- Prepare and implement a long-term plan for sludge handling.	- Sludge management	- PR3	- To be prepared by WAJ. The plan will determine implementation entity.	- Within first three years of the Project operation period	- Sludge management plan developed.	
3.7	- Prepare an annual GHG emission quantification and report it to EBRD.	- GHG emissions	- PR3	- To be prepared by Project Operator during operation.	- Every year.	- GHG estimation report is available.	
3.8	- Ensure that the Project achieves the effluent quality limits defined in the Project ESIA, including the respective EU requirements as per PR3.	- Appropriate wastewater treatment	<ul style="list-style-type: none"> <li>- PR3</li> <li>- Jordanian law</li> <li>- EU requirements</li> </ul>	- Project design contractor, WAJ and Project operator	- For life of Project.	- Project achieves the effluent quality limits defined in the Project ESIA.	
3.9	- Implement measures to avoid the illegal discharge of septage into wadis, drains, etc.	- Illegal discharge avoidance	<ul style="list-style-type: none"> <li>- PR3</li> <li>- Jordanian law</li> </ul>	- WAJ	- During operation	- Appropriate measures implemented.	

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3.10	- Implement a monitoring plan for the influent wastewater brought in by the tankers.	- Avoidance of illegal inflow of industrial wastewater	- PR3	- WAJ and Project Operator	- During operation	- Only municipal wastewater tankers are received at WWTP. - Records of influent septic monitoring.	
3.11	- Develop and implement a groundwater monitoring program.	- Ensure protection of groundwater resources	- PR3	- WAJ and Project Operator	- During operation	- Monitoring results to be communicated to Ministry of Water and Irrigation, Ministry of Health and Ministry of Environment.	
3.12	- Have a green barrier around the Project during the operation phase.	- Assist in reducing odours and emissions during operation.	- PR3	- WAJ and Project Operator	- During operation	- Monitoring results to be communicated to Ministry of Water and Irrigation.	
<b>PR4</b>	<b>Health and Safety</b>						
4.1	- Implement of health and safety measures to avoid H&S risks to tanker drivers during disposal of wastewater at the Project.	- H&S risk management	- PR4	- Project Operator during operation	- Prior to and during operation	- Health and safety measures and procedures in place, enforced and monitored.	

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4.2	- Establish and implement traffic and transport management measures and road safety awareness sessions amongst contractor/supplier drivers and tanker drivers to improve road safety.	- Capacity building and road safety management.	- Jordanian traffic and public safety laws - PR4	- By contractor during construction - By Project operator during operation	- Throughout all project phases	- Traffic management procedures included as part of the CESMP and ESMS. - Records of road safety training to drivers.	
4.3	- Implement management measures to prevent or minimise exposure of workers at the Project to odour nuisance especially odour prevalent within the site due to proximity to Al Ghabawi solid waste landfill.	- Promote suitable and safe working environment for the employees at the Project.	- Jordanian Labour Law - PR4	- WAJ through contractor and operator	- Prior to commencement of operation	- Odour controls in place - Records of employee complaints. - Air quality monitoring data on H <sub>2</sub> S and NH <sub>3</sub> .	
<b>PR6</b>	<b>Biodiversity and Living Natural Resources</b>						
6.1	- Implement measures to avoid and reduce impacts to biodiversity including site fencing/netting to prevent waterfowls and/or mammals from landing on open influent wastewater tanks during operation phase.	- Biodiversity protection	- PR6	- Operator	- Prior to commencement of operation	- Measures implemented. - Monitoring of performance.	
<b>PR8</b>	<b>Cultural Heritage</b>						
8.1	- Develop chance finds procedure for use during construction.	- Ensure that any archaeological finds will be preserved/protected	- PR8 - Jordanian law	- To be prepared by the Contractor	- Prior to commencement of construction works.	- Chance find procedure in place. - Workers' training logs.	

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	- Train workers, contractors and subcontractors on the implementation of the chance find procedure.			- To be reviewed, approved and monitored by WAJ with support of Project implementation consultant.		- Records of finds, if any.	
<b>PR10</b>	<b>Information Disclosure and Stakeholder Engagement</b>						
<b>10.1</b>	- Update, where necessary, and implement the Stakeholder Engagement Plan (SEP).	- Stakeholder engagement and information disclosure.	- PR10	- WAJ with support of project implementation consultant and contractor, during construction. - Project Operator during operation.	- Throughout all project phases	- SEP in place and implemented - Records of implementation maintained.	
<b>10.2</b>	- Adopt and implement WAJ community grievance mechanism.	- Grievance management	- WAJ Grievance/ Complaints Mechanism - PR10	- WAJ with support of project implementation consultant and contractor, during construction. - Project Operator during operation.	- Throughout all project phases	- Grievance mechanism in place and implemented. - Stakeholders made aware of the grievance mechanism. - Grievances are reported and are filed and addressed/ resolved.	

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10.3	- Appoint two qualified Community Liaison Officers (CLOs) from the local community during construction phase, and one CLO during operation phase.	- Appropriate community engagement and liaison - Support with grievance handling	- PR10	- Contractor during project construction - Operator during operation	- Prior to construction	- The CLOs appointed from the local community & designated to the project site.	