TÜRKIYE

OSMANIYE WASTEWATER PROJECT FEASIBILITY STUDY

EBRD Contract No. 2024.0113

Non-Technical Summary

September 2025

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LIST OF ACRONYMS AND ABBREVIATIONS

CESMP	Construction Environmental and Social Management Plan
CH	Critical Habitat
DSI	State Hydraulic Works General Directorate
E&S	Environmental and Social
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EPLR	Environmental Permit and License Regulation
ESAP	Environmental and Social Assessment Plan
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
EU	European Union
GHG	Greenhouse Gas
GBVH	Gender-based violence and harassment
H&S	Health and Safety
HSE	Health, Safety, and Environment
IBRD	International Bank for Reconstruction and Development
IFC	International Finance Corporation
ISO	International Organization for Standardization
IMS	Integrated Management System
KBA	Key Biodiversity Area
OESMP	Operational Environmental and Social Management Plan
OHS	Occupational Health and Safety
PBF	Priority Biodiversity Features
PE	Person Equivalent
PDoEUCC	Provincial Directorate of Environment, Urbanization, and Climate Change
PIP	Priority Investment Programme
PIU	Project Implementation Unit
PPE	Personnel Protection Equipment
PR	Performance Requirements (EBRD)
SEP	Stakeholder Engagement Plan
WWTP	Wastewater Treatment Plant

1 PROJECT OVERVIEW

1.1 Background

The EBRD is considering providing financing to the Republic of Türkiye (the "Borrower", as represented by the Ministry of Treasury and Finance). The beneficiary of the investment will be Osmaniye Municipality. Iller Bankasi A.S. (Ilbank, together with Osmaniye Municipality referred as the "Client") is a development bank supporting municipalities and will act as the Implementation Agency for the Project. It is noted that the IBRD and EU are currently implementing the Osmaniye Water Supply and Sewerage project with the objective of constructing a new water supply and a new sewerage system to collect wastewater and transfer to the existing Osmaniye WWTP site.

The Project includes:

- The construction of a new Osmaniye WWTP on an existing WWTP site. This will extend the existing WWTP's design capacity of 50,000 m^3/day (250,000 PE) to 75,000 m^3/day (350,000 PE) capacity. The entire existing WWTP will be demolished. A demolition strategy has been developed.
- A new 6.1km Ø1400mm HDPE pressure pipe from the WWTP to the Ceyhan River, replacing existing discharge pipes. The new discharge pipe will follow the same route as the existing pipes.

The total estimated budget for the Project is approximately EUR 42.0 million. This includes:

Item	Base Cost (€)	10% Physical Contingency (€)	Sub-Total (€)
WWTP (75,000m^3/d, 375,000 pop.)	26,250,000	2,625,000	28,875,000
Effluent Discharge Pipeline (6.1km)	6,954,000	695,400	7,649,400
Sub-Total	33,204,000	3,320,400	36,524,400
Price Contingency (10%)	3,320,400	332,040	3,652,440
Works Total (EUR)	**36,524,400**	**3,652,440**	**40,176,840**
Construction engineering and implementation support	**1,820,371**	**-**	**1,820,371**
Grand Total (EUR)	**38,300,000**	**3,700,000**	**42,000,000**

EUR 0.7 million has been also allocated to the Technical Co-operation components involving a feasibility study, environmental and social due diligence, advance procurement support and implementation & monitoring support.

The Project is situated in Osmaniye city, a city located in the southern region of Türkiye and the capital of Osmaniye Province. Osmaniye Municipality services Osmaniye city, and the Water and Sewerage Directorate within Osmaniye Municipality is the department responsible for managing the city's water supply, wastewater collection, treatment, and overall infrastructure maintenance.

The existing Osmaniye Wastewater Treatment Plant (WWTP), located in the northwestern part of Osmaniye city, is modestly overloaded and the effluent quality is poor. This results in a number of issues, primarily in the form of pollution of the receiving water body, the Ceyhan River.

Figure 1-1 Location of Osmaniye in Türkiye

1.2 The Project

Wastewater collected by the sewerage system in Osmaniye city is transferred to the existing Osmaniye WWTP. The WWTP receives wastewater of approx. 50,000m^3/day which is also the capacity of the WWTP. The effluent quality of the WWTP is poor. In addition, an upstream bypass system is in operation in order not to overwhelm the WWTP operations. In fact, the wastewater flowrate transported down the sewer is approx. 70,000m^3/day, of which approx. 20,000m^3/day bypasses the WWTP without any treatment.

A feasibility study has resulted in a **Priority Investment Programme (PIP)**, which includes the construction of a new wastewater treatment plant and the construction of an effluent discharge pipe. A proposed Long-Term Investment Strategy has also been developed.

Key components of the PIP are:

- **Osmaniye Wastewater Treatment Plant (WWTP)**: Construction of a new WWTP, which will extend the existing WWTP's design capacity of 50,000 m^3/day (250,000 PE) to 75,000 m^3/day (350,000 PE) capacity (Design Horizon 2041). The treatment process will be based on Conventional Activated Sludge technology. However, the "aeration tanks" will include separate anaerobic zones for phosphorus removal, anoxic zones for nitrogen removal and aeration zones for treatment of organics and ammonia. Anaerobic sludge digesters will produce biogas for combustion and electricity production. Treated effluent will be disinfected and pumped via a new effluent discharge line to Ceyhan River.
- To accommodate the future capacity of the new WWTP and continue to discharge directly to the Ceyhan river, the existing discharge pipe system consisting of 4.8 km of HDPE (800mm) pipeline and approx. 1.3 km of DN1000 mm reinforced concrete pipe will be replaced with a new 6.1 km long Ø1400mm HDPE pressure pipe. The new discharge pipe will follow the same route as the existing pipes to minimise any potential impacts.

The new WWTP will be constructed within the boundaries of the existing 10.5 ha. site. A risk assessment was completed by the Provincial Directorate of Health which concluded that it is necessary to have an internal buffer zone, established inwards from the property boundaries of the WWTP site, with the boundary being the existing fence. The buffer zone requirement for the new WWTP has reduced the available land for the construction of the new WWTP from approx. 10.5 ha to approx. 5 ha. Therefore, the existing WWTP needs to be demolished. Construction of the new WWTP must be scheduled in phases and planned together with demolition of the existing works, to ensure that the treatment plant can continue to treat wastewater during the construction stage. Hence, a construction strategy has been developed to clarify how the new works will be constructed while the existing works are demolished.

Figure 1-2 Red line indicating available land within WWTP site for construction of new WWTP considering buffer zone requirements

The Project has been categorised as Category B in accordance with the EBRD's Environmental and Social Policy, as the potential adverse future environmental and social impacts are site-specific, readily identified, and can effectively be addressed through mitigation measures. All PIP components will be subject to local permitting and approval procedures.

2 ENVIRONMENTAL AND SOCIAL AUDIT

As part of the Feasibility Study, an Environmental and Social (E&S) Audit of Osmaniye Municipality was conducted to assess the Municipality's capacity to manage environmental, health, safety, labour and social aspects in line with national regulations and international standards such as the EBRD's Environmental and Social Policy.

2.1 Environmental Management

Environmental management practices of the Osmaniye Municipality are being performed by the Environmental Protection and Control (EPC) Directorate. The EPC Directorate is responsible for key environmental management tasks, ensuring compliance with national regulations and contributing to environmental sustainability within its jurisdiction. The EPC has 10 employees, including four technical personnel and six support staff.

Osmaniye Municipality does not have an Integrated Management System (IMS) certified under ISO standards. Nor does the EPC Directorate have established formal policies, plans or procedures for managing environmental issues in line with international best practice and continuous improvement principles. After the 2022 earthquake even ensuring regulatory compliance has been a challenge due to limited capacity in the form of staff, time and finances.

In Türkiye, facilities listed under Annex-1 of the Environmental Permit and License Regulation (EPLR) are required by the Regulation on Environmental Management Services to establish in-house environmental management units certified by the Ministry of Environment, Urbanization, and Climate Change or to procure services from accredited environmental consultancy firms. Osmaniye Municipality has contracted an accredited Environmental Consultancy Company to fulfil its obligations under national legislation regarding Environmental Permits and Licenses. However, there is no environmental management system in place at the Municipality and there is no formal procedure to follow-up when the Monthly Activity Reports are submitted by the Environmental Consultancy Company. The overall internal E&S management capacity of the Municipality is limited and there is limited previous experience in working with international E&S

standards. Hence, it is expected that E&S capacity building will be required as part of the proposed PIP to ensure that EBRD's E&S Performance Requirements will be met.

2.2 Occupational and Community Health and Safety

The Municipality doesn't employ any Occupational Health and Safety (OHS) Specialist but performs all OHS activities via an accredited OSGB (Joint Health and Safety Unit) Company. In addition, the Municipality does neither have a certified OHS Management System nor corporate plans to obtain certification to ISO 45001, OHSAS 18001 or similar standards. During the E&S Audit, it has been observed that all OHS activities are managed by the Human Resources Department and communicated to the relevant departments. However, no internal communication procedure has been established to monitor OHS activities, incidents, etc. at the department level.

Observed non-compliances or deficiencies are documented and communicated in writing to the relevant department heads for corrective action. During the E&S audit site visit in October 2024, it was observed that the WWTP Personnel does not wear PPE, nor is it well informed about the HSE measures that are applicable to WWTP operations. The OSGB Company's OHS Specialist conducts internal audits at Osmaniye WWTP site. However, no completed audit forms were provided to the Consultant during the site visit. Information on OHS incidents is collected by the OSGB company, which has informed that no OHS incident and near miss occurred in 2024 at the WWTP. However, no accident records have been made available as part of this review.

With regards to community health and safety, Osmaniye Municipality is partly aware of the risk associated with its activities, but lacks means, management procedures and plans to effectively respond. Little action is undertaken for instance in relation to the water pollution caused by poorly treated/non treated wastewater, illegal connections to the discharge pipe or the discharge of untreated wastewater from a nearby slaughterhouse.

Osmaniye Municipality has in place an emergency response plan. The purpose of this plan is to ensure that management and staff can make quick and accurate decisions before, during and after emergencies such as fires and explosions, natural disasters (earthquakes, floods, etc.), sabotage, industrial accidents, the spread of hazardous chemical, biological, radiological and nuclear substances, poisonings and epidemic diseases (coronavirus, etc.). However, the plan does not cover accidental wastewater discharges. In addition, a traffic management plan for its operations has not been prepared. The Osmaniye Provincial Directorate of Health conducts regular water quality monitoring to ensure the safety of the city's drinking water supply.

2.3 Human Resources and Organizational Capacity

As of October 2024, Osmaniye Municipality employs a total of 1,235 staff members, 15% of whom are women and 85% men. 11% of all staff in managerial positions are women, which makes the proportion of women in managerial positions at the Municipality approx. 9% lower than is the case at national level. The Municipality employs a small proportion of its staff directly, while the remaining staff are employed through IMAR A.S. (permanent positions) and Economic and Social Facilities Operation (ESFO) (non-permanent positions), respectively. Both companies were established in accordance with Decree No. 696 from 2018. The Municipality's labour and working conditions are well-documented in three collective bargaining agreements signed between the Municipality and the respective trade union representatives.

The Directorate of Human Resources and Education has six staff members and has not had any role in overseeing contractor's compliance with national labour legislation.

Osmaniye Municipality does not have a gender equality policy as such. However, one of the collective bargaining agreements includes provisions against discrimination and for equal treatment which, according to the Municipality, are provisions that are applicable to all employees. It has not been possible to get an explanation why this provision was not included in the other two collective bargaining agreements. All municipal staff are required to complete a mandatory 2-hour gender-based violence and harassment (GBVH) training programme every year. This training primarily focuses on domestic GBVH and is not specifically designed to address or prevent GBVH in the workplace. As the proportion of female employees and managers is relatively low, the development and implementation of initiatives to attract more women to apply for vacant positions at the Municipality, including for management positions, are included in the ESAP, as is

the preparation and implementation of a policy on gender-based violence and harassment (GBVH) in the workplace.

Most municipal staff are reported to be members of trade unions, and there are several workers' representatives at the Municipality. Three collective bargaining agreements are in place. Municipal staff can submit grievances through a variety of relevant channels, including through their trade union representatives. There is, however, no written description of the grievance mechanism and the channels that can be used. Grievances can be submitted anonymously if staff wish to do so. The Municipality has, however, not registered any staff grievances in the last five years, and there is therefore scope for strengthening its staff grievance mechanism.

2.4 Social Performance

In 2024, the Municipality supplied piped water to 82,847 household subscribers/customers as well as 1,707 veterans/disabled/martyr families in Osmaniye city. Most of these customers were reportedly also provided with piped wastewater services. The Municipality does, however, not appear to register how many customers have piped wastewater connections and how many have septic tanks.

Based on national legislation, the Municipality has a reduced water and wastewater tariff for households with war veterans, households with disabled persons, so-called martyr families, and possibly a few other poor households. The reduced tariff range between 75% and 40% of the normal household tariff. Approximately 2% of the Municipality's household customers benefit from reduced tariffs. It does not have a subsidy mechanism as such for other poor households but will allow households unable to pay their bills on time to pay their debt in instalments. An affordability analysis conducted as part of this Feasibility Study concludes that the actual level of affordability ratio in 2022 ranges between 0.27% for the average household and 1.17% for the decile 1 household. In comparison, EBRD sets 5% of the total household expenditure / disposable revenue as the affordability threshold for water supply and wastewater services.

The Directorate of Press and Public Relations, which has 39 staff members, provides information to municipal water supply and wastewater customers on a variety of topics, using several channels of communication, which all appear appropriate. This includes communication activities during the construction and operation of projects. The Directorate is also overall responsible for the municipal external grievance mechanism, where water supply and wastewater customers and other stakeholders can submit grievances through several channels. There is, however, scope for improving the grievance management, including the registration of grievances. Similarly, there is scope for strengthening its stakeholder engagement capacity by employing additional staff and/or by conducting training.

The Municipality reports that land acquisition for the construction of new or the expansion of existing infrastructure is conducted in accordance with the national Expropriation Law.

Reportedly municipal staff are involved in labour-related monitoring of contractors in connection with some projects, such as the EU and World Bank supported water and sewerage project. There is, however, scope for strengthening this.

3 ENVIRONMENTAL AND SOCIAL ASSESSMENT OF THE PROJECT

3.1 Environmental and Social Benefits

The planned investments under the Priority Investment Programme (PIP) are expected to deliver significant environmental and social improvements in Osmaniye.

A key environmental benefit of the Project is enabling treatment of all generated wastewater within Osmaniye Municipality. The proposed WWTP will respond to the need to treat current and future wastewater

generation. Wastewater effluents will comply with high effluent standards corresponding to Turkish and EU effluent standards for “sensitive” water bodies. Currently, treated effluents do not meet EU standards. In particular, significant positive impacts on the Ceyhan River water quality can be expected as the result of this Project. Closely associated with the water quality of the Ceyhan River is the ecological state of the Kastabala Wetland which is currently negatively impacted by poorly treated wastewater from Osmaniye. Therefore, the Project is expected to have positive impacts on the ecological state and ecosystem of the Kastabala Wetland. Furthermore, the WWTP project will contribute to reduced GHG emissions by providing modern tertiary treatment processes for wastewater from Osmaniye Municipality.

The following are additional positive social impacts of the Project:

- Some reduction in water and sanitation related diseases can be expected, resulting in reduced mortality and morbidity; this will lead to reduced health costs for the individual family and the society.
- Employment opportunities, and thereby increased incomes, for local residents during construction of the proposed new WWTP, the removal of the existing effluent discharge pipeline and installation of a new discharge pipeline. It is expected that on average 200 construction staff will be required for a 2-year period for constructing the WWTP, 30-40% of whom may be from Osmaniye. During the peak construction period up to 50 staff are expected to be needed for replacement of the discharge pipeline, while less may be required for the remaining part of a 2-year construction period. 70-80% of these staff may be from Osmaniye. Increased incomes may in turn lead to increased demand for goods and services and thereby increased economic growth.
- Human resources development, in the form of training mainly by the suppliers of equipment, is part of the Project; increased knowledge and skill levels will be of economic benefit to the individual person and to the society.

3.2 Adverse impacts and mitigation measures

3.2.1 Project impacts during construction

The identified construction stage risks and impacts associated with the proposed PIP, including community health and safety aspects, are mostly generic in nature and typical of construction projects of similar size and nature, mainly relating to the use of heavy machinery, excavations, etc. These risks and impacts are mostly temporary in nature and can be effectively mitigated via standard good practice management measures. Where site-specific adverse impacts have been identified, specific mitigation measures have been proposed.

A key consideration associated with the proposed PIP components relates to management of biodiversity risks. The biodiversity risks associated with the Osmaniye WWTP project differ for the different project components, which include: the WWTP site, pipeline corridor of the effluent discharge pipe, and effluent discharge areas (Ceyhan River and Kastabala Wetland / Valley):

WWTP Site – Brownfield Area (No significant Ecological Impact): The WWTP site is located within a brownfield area, meaning it has been previously disturbed and lacks intact natural habitats or species of conservation concern. As a result, no additional ecological mitigation measures are required for this location.

Effluent Discharge Pipe corridor – potential Habitat Disturbance & Species Displacement: The pipeline corridor is a 6.1 km long and the construction right-of-way is 10 meters wide. This area may be adversely affected by construction activities. Activities such as excavation, trenching, and temporary access road establishment may result in temporary habitat loss and disturbance, particularly for species that rely on these areas for foraging, breeding, or migration.

The proposed pipeline corridor traverses a landscape with varying levels of disturbance, including agricultural land, patches of natural habitat, and areas affected by existing infrastructure and human activity. Also, the proposed pipeline corridor has been previously affected by the installation of the existing pipeline. As most of the site is in a degraded state only smaller patches of semi natural areas have the potential to be used for foraging, breeding, or migration. The risk of significant biodiversity impacts is therefore considered unlikely and construction stage impacts will be limited.

However, the pipeline corridor includes a 400-meter section passing through the Kastabala Wetland, which is recognized as a National Protected Area and a 4-kilometer section within the Kastabala Valley KBA which is a recognized Key Biodiversity Area (KBA). For this reason, a preliminary desktop assessment of the candidate list for critical habitat (CH) triggers and priority biodiversity features (PBF) has been conducted. Based on this, in total 20 CH/PBF candidate species are known to present within the Kastabala wetland and KBA, which overlap a 400m (wetland area) and 4 km (KBA) sections of the pipeline route corridor, respectively. Although these key biodiversity receptors are known to be present within the KBA and wetland, a desk review of the available information and the site visits by the consultant in 2024 and early 2025 concluded that any significant impact on the critical habitat species is unlikely. However, adequate precautionary measures will be required prior and during the construction activities. The Client will be required to apply an adaptive biodiversity management approach, which is to be informed by results of the pre-construction biodiversity surveys to determine the presence of species/habitats within the pipeline corridor and immediately adjacent area and to verify the risk of construction-related disturbance on those species, if any. The findings of the surveys will inform adaptive management measures and determine the need for more targeted biodiversity action plans (BAP). Construction of the discharge pipe will be required to be outside of the breeding season for birds which is from March-August, hence no impacts on nesting birds are expected.

Effluent Discharge Area – Expected Positive Impact: The Ceyhan River currently receives untreated and poorly treated wastewater from Osmaniye and several other sources negatively impacting its water quality and aquatic species. The introduction of high quality treated effluent from the new Osmaniye WWTP is expected to have a net positive impact on water quality and aquatic habitats.

Following the buffer zone requirement, the existing WWTP needs to be demolished entirely to provide a sufficient area within the WWTP site for the construction of the new WWTP. To mitigate potential risks and impacts associated with the demolition and construction activities, the Contractor will be required to prepare as a minimum a Waste Management Plan, a Community H&S Plan and an OHS Plan, as a part of the Construction ESMP as outlined in the separate Framework ESMP prepared for this Project.

Discharge of poorly or non-treated wastewater into the Ceyhan River is not expected during construction, beyond what is the case currently, and no net-negative impacts on the water quality of the Ceyhan River during construction are expected. A construction strategy has been developed so that the existing WWTP continues to treat wastewater until the existing works can be eventually replaced by the new works. The WWTP Design-Build Employer's Requirements will include a requirement to maintain wastewater treatment throughout the construction duration of the new works which is also reflected in the separate Feasibility Study report.

Contractors are expected to accommodate workers from outside Osmaniye in camps on the WWTP site or in other locations relatively close to the construction sites. The IFC/EBRD Guideline on Worker Accommodation (2009) is to be used to mitigate potential impacts in relation to surrounding communities.

The new WWTP is to be constructed on the existing WWTP site, which is owned by the Municipality. A Municipality owned greenhouse on the WWTP site has recently been relocated to another publicly owned land plot. Likewise, an animal shelter, including its dogs and cats, will be relocated from the WWTP site to another publicly owned land plot before the construction of the new WWTP starts. The WWTP site is fenced, and no informal housing structures, land cultivation structures, or crops were observed at the site. Several residential buildings and livestock facilities are located close to the fence of the WWTP site. The required health buffer zone for the new WWTP will be located within the existing WWTP site. This will reduce the available land for construction of the new WWTP to approx. 5 ha., which is nevertheless considered sufficient. No land acquisition and/or resettlement of residents living close to the WWTP site or restrictions in land use and activities are thus assessed to be required. Some limited easement rights over the privately owned land, in which parts of the effluent discharge pipeline is placed, will be established by the Municipality without any physical or economic resettlement. This is explained in further detail below.

Most of the effluent discharge pipeline system is and will be in public land, while according to the State Hydraulic Works General Directorate (DSI) in total 1,950 meters is in privately owned land, distributed over 5 agricultural parcels. DSI reports that one annual crop is cultivated on the mentioned parcels, i.e., crops with one harvest per year. The existing pipeline was reportedly laid in the privately owned parcels outside the

cultivation period, i.e., at a time where no crops would be affected. Oral agreements (mutual consent) were made between DSI and the private landowners. However, DSI did not register any easement rights on their title deeds. Osmaniye Municipality will establish easement rights for the new discharge pipeline.

The distance from the new WWTP and the effluent discharge pipeline to known cultural heritage sites exceeds 1 km. The assessment is therefore that no known cultural heritage sites will be impacted during the construction and operation phases.

To date, Osmaniye Municipality has only provided limited information to the public about the new WWTP. The Municipality is expected to need additional personnel for community-level stakeholder engagement and management of grievances, particularly during the construction phase.

3.2.2 Project impacts during operation

During the operation phase, the expected environmental and social impacts are typical for the operation of wastewater treatment plants and related infrastructure. These include potential odour emissions, noise from equipment, and the handling and disposal of sludge. These risks are considered manageable and will be addressed through good operational practices.

Sludge from the treatment process will be managed according to national and EU requirements.
The WWTP will implement sludge thickening, anaerobic digestion and biogas combustion for electricity production, dewatering and thermal drying. Sludge is currently dewatered and sent to a “Refuse Derived Fuel” facility (RFD) prior to final transport to a cement factory for combustion in cement kilns. This will continue as a long-term solution for the final disposal of treated sludge from the anaerobic digestion process.

A specific WWTP consideration relates to potential odour emissions; hence odour modelling has been conducted. Results indicate that odour from the WWTP alone is not expected at levels that would result in nuisance at nearby receptors, but that livestock odours pose a more significant nuisance and have a broader impact on the region compared to odours from the new WWTP. Osmaniye Municipality is required to develop and implement a structured odour monitoring plan as part of the ESMP for this Project. This is considered important to monitor the complex odour situation, given the different other odour emitters in vicinity of the WWTP and relatively close proximity to certain residential receptors.

Adverse noise impacts are not expected during the operation phase of the WWTP compared to the current baseline. This is considering that the proposed WWTP is located on an existing WWTP site without a buffer zone requirement, whereas the new WWTP will have a buffer zone requirement which will extend the distance between noise receptors and WWTP components. The proposed WWTP will be equipped with modern equipment and noise emitting components, such as pumps, will be located inside buildings. Detailed design shall ensure that all noise emitting components are appropriately insulated to avoid any off-site noise impacts.

4 PROJECT COMPLIANCE WITH NATIONAL, EU, AND EBRD REQUIREMENTS

Osmaniye Municipality does not have an Integrated Management System (IMS) certified under ISO standards. Nor does the EPC Directorate have established formal policies, plans or procedures for managing environmental issues in line with international best practice and continuous improvement principles. After the 2022 earthquake even ensuring regulatory compliance has been a challenge due to limited capacity in the form of staff, time and finances. The EPC Directorate provided information that no compliance actions have been brought against Osmaniye Municipality regarding its water and wastewater operations.

Osmaniye Municipality has secured the necessary permits required for water supply, such as groundwater abstraction, and is in possession of the working safety license. It should be noted that the environmental permit for the WWTP expired in 2022. However, due to the earthquake that occurred in 2022, the Municipality was unable to complete the renewal process.

The Osmaniye Provincial Directorate of Health conducts regular water quality monitoring to ensure the safety of the city's drinking water supply. Treated effluent of Osmaniye WWTP does not meet national and EU discharge standards. In line with the "Continuous Wastewater Monitoring Systems (CWMS) Circular, continuous monitoring systems of wastewater effluents is installed at Osmaniye WWTP. Osmaniye Municipality recently changed the location of sampling points and is waiting for the CWMS approval. The proposed project has been assessed against national, EU, and EBRD requirements. It is classified as category B under the EBRD's Environmental and Social Policy, as the potential adverse future environmental and social impacts are site-specific, readily identified, and can be effectively addressed through mitigation measures.

The new Osmaniye WWTP is subject to local EIA regulations but has received an EIA exemption letter from the Provincial Directorate of Environment, Urbanization, and Climate Change (PDoEUCC).

The discharge pipe is exempt from the national EIA procedure. However, a 400-meter section of the wastewater discharge pipeline to be constructed under the Project is located within the Kastabala Wetland area. The conditions for activities to be carried out within wetlands are defined in the Regulation on the Protection of Wetlands. Annex-2 of this Regulation lists the Activities Requiring Ministry Approval in Wetland Protection Zones. Once the final design of the proposed wastewater discharge pipeline is completed, Osmaniye Municipality will obtain the necessary permit from the 7th Regional Directorate of Nature Protection and National Parks for the section of the pipeline that falls within the Kastabala Wetland area. Considering the Project's public interest and the specific provisions of the Final Kastabala Wetland Management Plan—which emphasizes the urgency of resolving technical issues related to the current Osmaniye WWTP and ensuring treated wastewater is discharged into the area — it is not anticipated that there will be any objection to providing the required permit.

The new WWTP is designed to comply with EU effluent standards for sensitive waters, including removal of nitrogen and phosphorus in line with the Urban Wastewater Treatment Directive.

The conducted Environmental and Social Audit and Assessment identified gaps in relation to several EBRD Performance Requirements (PRs), including environmental management, occupational health and safety, land acquisition, and stakeholder engagement.

These are being addressed through an Environmental and Social Action Plan (ESAP), which will guide implementation and ensure alignment with EBRD's E&S Performance Requirements 1–10.

This Environmental and Social Action Plan (ESAP) includes key actions which the Municipality, via a Project Implementation Unit (PIU), needs to undertake to ensure that EBRD's Performance Requirements (PRs), as well as National and European Union legislation are met. It should be noted that a Framework E&S Management Plan (ESMP) has been prepared as a stand-alone document to serve as a basis for Project-specific E&S management practices over the project lifetime. Based on this, the Contractor(s) will need to further develop a Construction Environmental and Social Management Plan (CESMP), while Osmaniye Municipality will further develop and implement an Operational Environmental and Social Management Plan (OESMP).

5 MANAGEMENT AND MONITORING OF IMPACTS

Several actions have been set forth in an ESAP, which includes key actions that Ilbank and the Municipality, via the PIU, needs to undertake to ensure that EBRD's Performance Requirements (PRs), as well as National and European Union legislation are met. As noted above, a Framework E&S Management Plan (ESMP) has also been prepared to serve as a basis for Project-specific E&S management practices over the project lifetime and to guide the development of final ESMPs by the contractor(s) and Osmaniye Municipality.

Key actions reflected in the ESAP relate to:

PR1 – key actions:

- Mitigation measures identified through the E&S due diligence process shall be reflected in an ESMP and E&S policies for the PIP.
- Relevant E&S requirements, including ESMP implementation, shall be duly reflected in tender documents and agreements with contractors.
- Actions pertaining to monitoring and reporting related to E&S performance.
- Obtain necessary authority approvals for the project (new WWTP and discharge pipe) construction and operations
- Conduct a pre-construction biodiversity survey with focus on candidate CH/PBF species within the discharge pipeline corridor and adjacent areas to inform adaptive management and verify if there is need for a targeted biodiversity action plan (BAP). See also PR6.
- Assign at least one E&S responsible person to oversee the implementation of the ESAP, including the development of ESMS and detailed ESMP for the project, and to evaluate the need for further human resources. In addition, assign a community liaison officer.
- Train PIU staff as well as other municipal staff involved in E&S social management, monitoring and reporting, for ensuring sufficient capacity for the ESAP implementation.

PR2 – key actions:

- Prepare and implement a policy on gender-based violence and harassment (GBVH) and inform municipal employees and non-employee workers about the policy.
- Strengthen the Municipality's staff grievance mechanism by preparing a clear description of the grievance mechanism and disseminate this information to all employees.
- Monitor that contractors and consultants follow Turkish legislation and EBRD requirements inclusive of access to a grievance mechanism, working conditions, wages, working time, workers accommodation.
- Require contractors and consultants to have in place or develop gender-based violence and harassment policies, codes of conduct, and confidential grievance mechanisms.

PR3 – key actions:

- Developing waste management plans, incl. a demolition plan for the existing WWTP infrastructure, a construction waste management plan and a sludge management plan.
- Requiring odour monitoring and control measures for Osmaniye WWTP.
- Monitoring and reporting on GHG emissions related to operations, including establishing procedures to monitor and quantify methane leakages from AD facilities.

PR4 – key actions:

- Implement actions intended to ensure integration and operationalisation of effective OHS and community H&S management during construction and operation phases, e.g., through inclusion in tender documents / contractor management.
- Implement traffic management planning, prepare Emergency Preparedness and Response Plan covering activities of Osmaniye Municipality and the project components.
- Consider the climate change risks identified and implement the proposed mitigation measures.

PR5 – key actions:

- Establish easement rights on part of the privately owned parcels along the route of the new discharge pipeline. The easement rights cover both the construction and operation phases.
- The above key ESAP action is further elaborated in the Framework ESMP, including but not limited to:
  - Identify the exact privately owned agricultural land where easement rights are to be established and the landowners who will be affected.
  - Inform the affected landowners about the Project, its benefits, and the need to establish easement rights on part of their agricultural land.
  - Attempt to reach a negotiated agreement with the landowners. In case an amicable settlement is not reached, judicial proceedings are to be initiated.
  - Compensation must be paid prior to the registration of the easement.
- Require from contractors that the discharge pipeline in privately owned land is replaced outside of the agricultural cultivation period, to the extent possible, to avoid/minimise damage to or loss of crops.
- Compensate private landowners for potential damage to and loss of crop during construction and/or operations. Also, their land is to be fully restored after construction activities and maintenance/repairs.

PR6 – key actions:

- All biodiversity mitigation measures as specified in the ESMP and incorporated as conditions in tender documents / contractor management need to be implemented.
- Conduct pre-construction survey(s) to verify the absence of sensitive habitats and impacts on protected species along the discharge pipe route
- Apply adaptive biodiversity management approach to be informed by results of the pre-construction surveys.
- Requirement for the contractors that the pipe works take place outside of the breeding season to minimise any negative impacts on the biodiversity in the project area.
- Develop and implement a comprehensive water quality monitoring program (to be commenced 12 months prior to operation start of the new WWTP) in the Ceyhan River. Coordinate and share results with relevant authorities and stakeholders of the downstream KBA and protected wetland area.

PR8 – key actions:

- Require contractors to develop and implement chance find procedures in case of new cultural heritage discoveries during construction work.

PR10 – key actions:

- Finalise and implement the SEP during the construction and operational phases, including the described grievance mechanism.
- Ensure that priority is given, and resources allocated, to implement stakeholder engagement, communication activities, and management of grievances during the construction phase, including appointment of a full-time community liaison officer for both the construction and operations phases.
- Improve grievance management, including the registration of grievances. The improved grievance mechanism is to be communicated to external stakeholders, including locally affected communities.

6 CONTACT DETAILS

The PIU which is to be established by Ilbank (involving representatives of Osmaniye Municipality as well) is responsible for the implementation of stakeholder engagement and communication activities during the construction phase, while the Municipality's Directorate of Press and Public Relations is responsible for these activities during the subsequent operations. The following is the contact information:

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