GENERAL DIRECTORATE OF INFRASTRUCTURE INVESTMENTS

CONSTRUCTION WORKS FOR THE BRANCHING RAILWAY LINES TO THE INDUSTRIAL FACILITIES AT THE CUKUROVA REGION, YUMURTALIK FREE ZONE AND THE PORTS AT THE ISKENDERUN BAY

(CONTRACT ID NO: AYGM-YAP-2023-WB 02)

SUPPLEMENTARY ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR CONSTRUCTION CAMP SITE AND CONCRETE BATCHING PLANT

ÖZGÜN İNŞAAT TAAHHÜT SANAYİ VE TİCARET LİMİTED ŞİRKETİ | ÖZDEMİR İNŞAAT TURİZM ENERJİ SANAYİ ve TİCARET A.Ş.

ÖZGÜN – ÖZDEMİR ADİ ORTAKLIĞI

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ABBREVIATIONS AND DEFINITONS

AoI	Area of Influence
C-ESMP	Contractor's Environmental and Social Management Plan
CLO	Community Liaison Officer
DGII	Directorate General of Infrastructure Investments
DSİ	General Directorate of State Hydraulic Works
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
ESF	Environmental and Social Framework
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
GBV	Gender-Based Violence
GM	Grievance Mechanism
KPI	Key Performance Indicator
LMP	Labor Management Procedures
MoEUCC	Ministry of Environment, Urbanization and Climate Change
MoTAT	Mobile Waste Tracking System
MoTI	Ministry of Transport and Infrastructure
OHS	Occupational Health and Safety
OIZ	Organized Industrial Zone
PAP	Project-Affected Parties/Persons
PMT	Project Management Team
PPE	Personal Protective Equipment
RP	Resettlement Plan
SDS	Safety Data Sheets
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
TAYSEB	Toros Adana Yumurtalık Free Zone
TURKSTAT	Turkish Statistical Institute
WB	World Bank
WBG	World Bank Group
WHO	World Health Organization
WWTP	Wastewater Treatment Plant

1 INTRODUCTION

1.1 Main Project Description

The Çukurova Railway Connection Lines Project ("Project") aims to enhance railway freight transportation efficiency in Türkiye by increasing the operational efficiency of railway-supported logistics centres and strengthening railway freight logistics capacity.

The project will be financed by a loan provided by the World Bank (WB) and implemented by the Ministry of Transport and Infrastructure (MoTI) through its Directorate General of Infrastructure Investments (DGII).

The construction works will be carried out by the joint venture of Özgün İnşaat – Özdemir İnşaat (Contractor) under the "Construction Works for the Branching Railway Lines to the Industrial Facilities at the Cukurova Region, Yumurtalik Free Zone and the Ports at the Iskenderun Bay" Contract (DGII-YAP-2023-WB 02) dated 26.11.2024. The supervision consultant for the project is OEOE Joint Venture (Consultant). The construction phase is expected to last approximately four (4) years. The site handover for the project was conducted by DGII on December 6, 2024, and the Contractor was given the notice to proceed on December 24, 2024.

The risk classification of the project is assessed as “Substantial” according to the WB Environmental and Social Framework (ESF). As a result, although the Project has an exemption on Environmental Impact Assessment (EIA) according to the national legislation, an ESIA package consisting Environmental and Social Impact Assessment (ESIA), Resettlement Plan (RP), Stakeholder Engagement Plan (SEP), and Environmental and Social Management Plan (ESMP) has been prepared in compliance with the WB ESF, and Environmental and Social Standards (ESSs) for the Project. The Labor Management Procedures (LMP) have also been prepared to be implemented for this Project. On the other hand, within this framework, the Contractor has prepared a site-specific Contractor’s Environmental and Social Management Plan (C-ESMP) and the associated sub-management plans/procedures (see Chapter 1.3).

The construction camp site was not assessed during the ESIA process, as the specific site to be used within the scope of the Project had not yet been determined. Therefore, its environmental and social assessment had not been conducted in the earlier stages, creating the need for the preparation of a supplementary assessment. Within this scope, this document has been prepared to comprehensively cover both the construction camp activities and the concrete batching plant to be established at the same site.

1.2 Objective and Scope

The primary objective of this supplementary document is to guide the Main Project’s management of the environmental and social risks and impacts associated with the construction camp (including offices and accommodation facilities) and the concrete batching plant during its construction and operation. This includes ensuring compliance with applicable national and international legislative requirements during the construction phase and operation phase of the construction camp and the concrete batching plant site, which was not assessed in earlier periods due to the recent determination of its exact location. Its purpose is to prevent or minimize potential environmental, social, health, and safety impacts and risks, while ensuring effective management of the Main Project’s footprint throughout the construction phase by providing site-specific guidance for efficient and compliant site management.

1.3 Key References

The following documents are the key documents that have been used during the development of this supplementary ESMP.

Guiding Framework Documents[1]

- Environmental and Social Impact Assessment (ESIA) Report,
- Environmental and Social Management Plan (ESMP),
- Stakeholder Engagement Plan (SEP),
- Resettlement Plan (RP).
- SEA/SH Action Plan and an Accountability Response Framework[2]

Principal Documents Developed by the Contractor

- C-ESMP
- Construction Biodiversity Management Procedure
- Construction Cultural Heritage Management Procedure
- Design Change and Management Procedure
- Air Quality and Dust Management Plan
- Traffic Management Procedure
- Construction Rehabilitation and Landscape Management Procedure
- Noise and Vibration Management Procedure
- Waste Management Procedure
- Pollution Prevention Procedure
- Community Health, Safety, and Security Management Procedure
- Water Resources Management Procedure
- Human Resource Management Procedure
- Employment and Training Procedure
- Construction Materials Management Plan
- Occupational Health and Safety Management Plan
- Emergency Preparedness and Response Plan
- Accident, Incident, and Near Miss Management Procedure
- Labor Management Plan

1.4 Construction Camp Site

1.4.1 Description of Construction Camp Site

In addition to the information presented in Sections 1.1 and Section 1.2, the Construction Camp Site, including the Concrete Batching Plant with a capacity of 95 m³/hour, serves as a related and ancillary facility essential for supporting the construction phase of the Main Project. The Construction Camp Site serves as the central operational hub for the Project, enabling the integrated and coordinated management of all construction-related activities. These include, but are not limited to, the mobilization and demobilization of the workforce, accommodation of personnel, administrative and logistical operations, as well as the storage, handling, and

[1] The relevant documents were approved by the World Bank and published on the DGII's official website on September 24, 2025 (see https://aygm.uab.gov.tr/dunya-bankasi-turkiye-de-demiryolu-lojistigini-gelistirme-projesi).

[2] These documents will be prepared for the Rail Logistics Improvement Project by the DGII

distribution of construction materials, equipment, and machinery throughout the entire construction period.

The Construction Camp Site has been designed to accommodate a maximum of approximately 300 personnel. The primary users of the facility will include Contractor staff, Supervision Consultant staff, and sub-contractor(s) personnel engaged in construction-related activities.

The decision to temporarily allocate a 64,199.45 m² portion of Plot 959, Parcel 72, located in Turunçlu Neighborhood, Erzin District, Hatay Province, and owned by the Hatay Governorate, for use as accommodation facilities, office space, and a concrete batching plant during the project period, was taken by the Investment Monitoring and Coordination Directorate and assigned to the Directorate General of Infrastructure Investments (DGII) on May 28, 2025. The site was subsequently handed over to the relevant authority with handover protocol (see Appendix-1.1).

The commencement date of the works to be carried out by the Contractor is 24 December 2024, and the total duration is planned to be 910 days. The central construction camp site will remain operational throughout this period and will be handed over to the allocation owner, DGII, upon completion of the Project. As part of the demobilization process, a Demobilization Management Plan will be prepared by the Contractor during the final year of the Project (at the beginning of 2027) in line with the requirements of the Works Contract and upon DGII's request.

The area designated for the construction site is currently inactive and is regarded as -land that is not being used- with no permanent or temporary structures, nor any agricultural or livestock activities observed. In addition, no evidence of informal or unregistered use of the facilities was observed during the on-site inspections.

The construction site is situated approximately 3 km east of the Toros Adana Yumurtalık Free Zone (TAYSEB) and immediately south of the Erzin Organized Industrial Zone – Additional Area. Sensitive receptors are located in close proximity, including the residential areas of Yanıkdeğirmen in the Yukarıburnaz Neighborhood, approximately 300 meters to the east, and Turunçlu Burnaz Primary School, located roughly 500 meters to the northeast. A surface water body discharging into the Mediterranean Sea is located approximately 300 meters east of the camp site. In addition, the Burnaz Beaches, a critical habitat, are located approximately 400 meters south of the site. Besides, two registered cultural heritage assets have been identified in the vicinity of the construction site. The "Adsız Ruins" are located approximately 830 meters west of the site, while the "Yanıkdeğirmen" archaeological area lies about 1,165 meters to the southeast. On the other hand, Strict Protection Area of the Burnaz Spring Group Groundwater is located approximately 550 meters northeast of the construction camp site and about 2,700 meters from the nearest point of the Issus Ancient Waterway extending along the northeast and northwest directions. Construction and operational activities carried out within the camp site are not expected to have any impact on these areas. In this context, the Area of Influence of the Construction Camp Site has been defined in Section 1.4.2.

This Supplementary Construction Camp Site and Concrete Plant ESMP should be read in conjunction with the *Employment and Training Procedure* and the *Labor Management Plan* (*prepared as the appendices to the Contractor's ESMP)*, which provide the overarching framework for labour management within the Project. While the present ESMP focuses on the environmental and site-specific social impacts associated with the construction camp area (including site preparation, infrastructure, utilities, and camp operations), labour-related issues are addressed in detail in the *Employment and Training Procedure and the Labor Management Plan*.

Specifically, matters related to worker recruitment, employment practices, labour influx, worker–community interactions, worker welfare, accommodation standards, and grievance mechanisms fall under the scope of the *Labor Management Plan*. Therefore, any mitigation measures or monitoring actions concerning the workforce shall be implemented in alignment with the requirements set out in that document.

Where labour-related impacts are identified within this ESMP, the mitigation hierarchy and responsibilities described in the *Employment and Training Procedure and Labor Management Plan* shall apply.

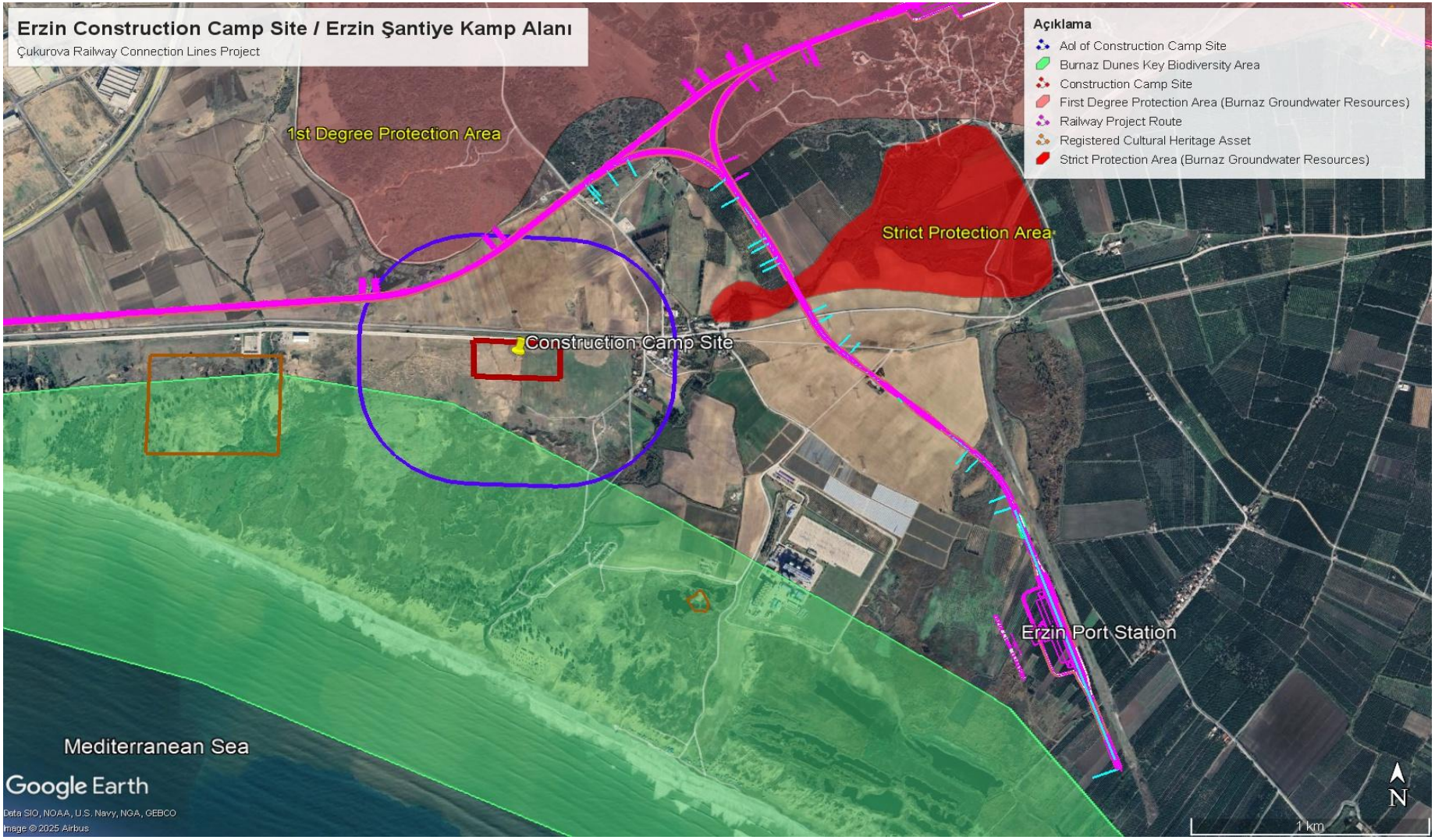


Figure 1-1. Construction Camp Area and Surrounding

The layout of the construction camp site is shown in Figure 1-2. The site will accommodate the following facilities:

- Accommodation blocks for workers and engineers (mainly including personnel of the Contractor, the Supervision Consultant and sub-contractor(s)),
- A concrete batching plant,
- An aggregate storage area,
- A stepped sedimentation basin for the reuse of concrete washout from the concrete batching plant,
- A fuel storage area,
- Electricity transmission lines,
- Transformer area along with emergency generator,
- Wastewater treatment plant,
- Warehouses for unused chemicals and actively used hazardous materials,
- An open storage yard,
- A laboratory,
- A workshop and maintenance/repair area,
- A vehicle washing area,
- Administrative and site offices,
- A cafeteria,
- Potable water treatment plant/units (if required, depending on groundwater quality standards),
- A water storage tank and central heating facility and
- An on-site clinic.

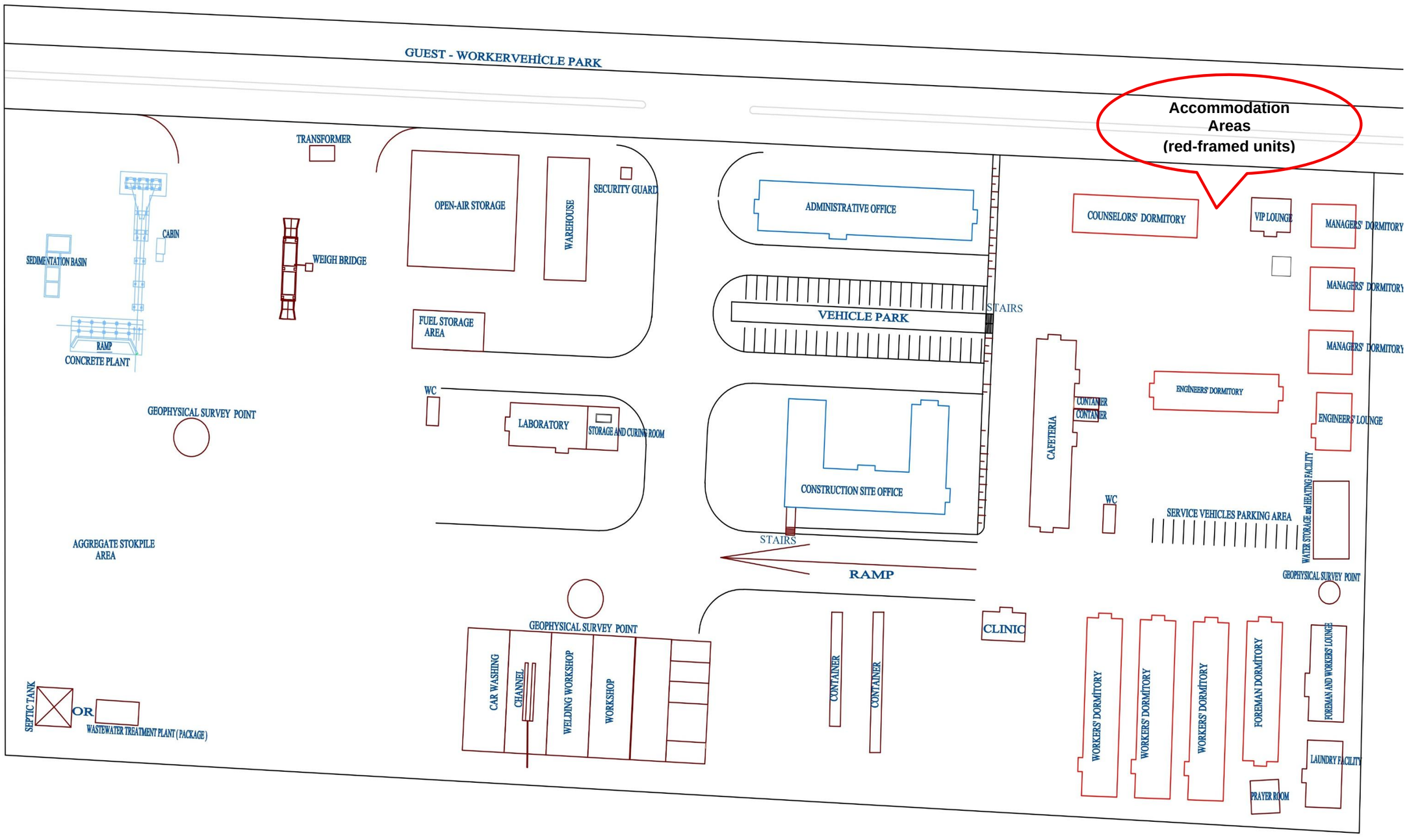


Figure 1-2. Construction Camp Site Layout Plan

1.4.2 Area of Influence (AoI)of the Construction Camp Site

According to the WB ESSs, “when a project includes specifically identified physical components, aspects, and facilities that are likely to generate impacts, environmental and social risks and impacts must be identified within the project's Area of Influence (AoI).”

Accordingly, the AoI of the Project is considered from two distinct perspectives: environmental AoI and social AoI.

The extent of the AoI to be assessed may vary depending on the specific project component and the characteristics of potentially affected receptors. In all cases, the AoI includes all areas where significant impacts are likely to occur, and the identification process takes into account all relevant project components.

These areas where significant impacts are likely to occur are defined as:

- The project footprint
- Temporary facilities
- Associated facilities

This AoI includes the area likely to be affected by:

- The Project activities and facilities that are directly owned, operated, or managed (including by contractors) and that are a component of the project;
- Impacts from unplanned but predictable developments caused by the project that may occur later or at a different location; or;
- Indirect project impacts on biodiversity or on ecosystem services upon which Affected Communities' livelihoods are dependent. Therefore, in the light of the above explanations, the Project AoI covers the following areas in the order presented below;
    - The area directly impacted by Project activities is defined as the Project footprint,
    - The area where direct environmental, social and economic impacts extend as a result of Project activities,
    - The broader area over which Project impacts and benefits are distributed and that may be affected by the outcomes of the Project.

When determining the AoI of the construction camp site, a range of potential impacts during both the construction and operation phases was taken into account. These include environmental pollution risks along with dust and noise impacts on nearby settlements, effects on water resources and water quality, impacts on critical habitats and biodiversity, (especially on Burnaz Dunes Key Biodiversity Areas) potential effects on cultural heritage assets, and socio-economic impacts. Based on these considerations, a circular impact zone with a 500-meter radius has been delineated from the site boundaries to represent the area potentially affected by the camp’s activities (see Figure 1-2). Within this defined buffer zone, environmental, social, and community health, safety, and security assessments have been conducted in accordance with the provisions of this supplementary ESMP. This approach ensures that potential impacts on nearby communities and sensitive receptors are systematically identified, evaluated, and appropriately mitigated.

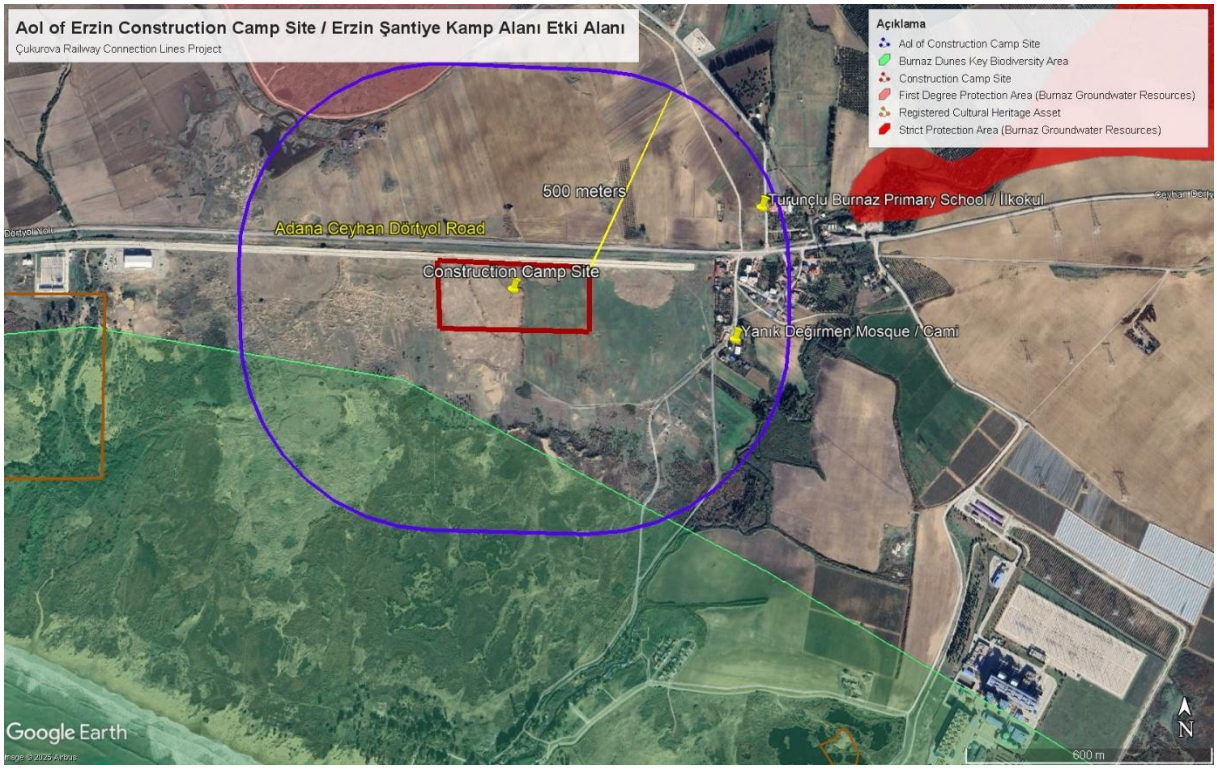


Figure 1-3. AoI of the Construction Camp Site

More specifically, the social AoI of the Construction Camp Site has been determined by taking into account the direct and indirect effects of the Project activities. In this context, in addition to settlements that may be exposed to potential negative impacts arising from construction and operation activities, including potential labor influx, settlement that may be positively affected through local employment and local purchasing opportunities have also been defined within the scope of the AoI.

As illustrated in Figure 1-4 below, the most critical and sensitive receptors within the construction camp sites's AoI are:

- Yanıkdeğirmen settlement, located approximately 320 meters away,
- Turunçlu-Burnaz Primary and Secondary School (in the same building), located about 500 meters from the camp site, and
- The mosque, situated at a distance of roughly 370 meters.

The potential risks that may arise from project activities within the AoI of the construction camp site have been addressed under the following categories:

- Community Health and Safety
- Traffic and Road Safety
- Gender-Based Violence (GBV), Harassment, and Exploitation
- Social Cohesion and Labor Influx

Mitigation measures for the risks listed above have been elaborated in the corresponding sections of this report.

Labour-related risks associated with the construction camp (e.g. worker influx, labour conditions, worker–community interactions, accommodation conditions etc) are addressed in detail under the *Labor Management Plan as one of the appendices to the C-ESMP)*.

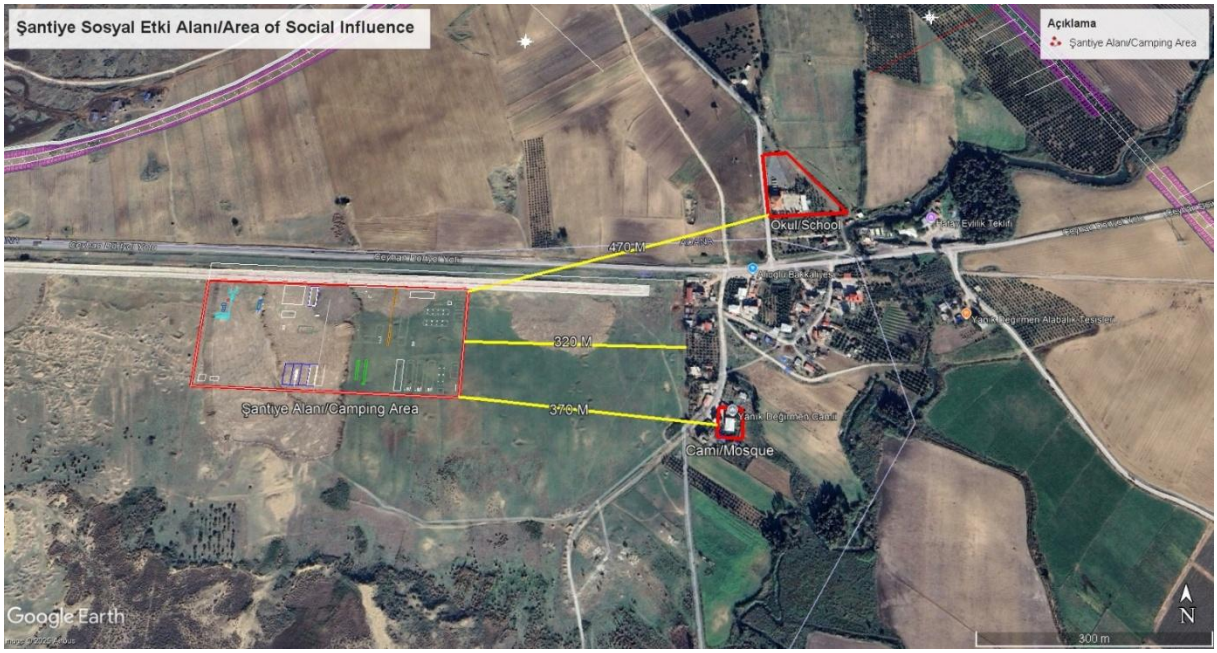


Figure 1-4. The Most Critical Social Receptor Area

1.4.3 EIA, Environmental Permits, and Other Regulatory Requirements

Table 1-1 provides a summary of the permits that must be obtained for the management of the construction camp site.

Table 1-1. EIA, Environmental Permits, and Other Regulatory Requirements

Issue	Requirement	Current Status
Workplace notification for camp sites or Exemption Decision	A Workplace Opening and Operation License or Exemption Letter due to temporary facilities shall be obtained from the relevant municipal authority before commencing operations.	No correspondence regarding the workplace notification has been made yet. Considering the short-term nature of the work and the public interest decision of the project, it is anticipated that an exemption will be granted.
EIA decision for concrete batching plant	It is required to obtain an EIA decision for ready-mixed concrete batching plants with a production capacity of 100 m³/hour or higher, as stated in Annex-II, Article 18(b) of the EIA Regulation. Given that the planned facility's capacity is 95 m³/hour, it is required to obtain an EIA Exemption Opinion from the Provincial Directorate of Environment, Urbanization, and Climate Change before operation	An EIA Exemption Decision, numbered E-26634441-220.03-13037624, has been obtained from the Hatay Governorate, Provincial Directorate of Environment, Urbanization and Climate Change, regarding this matter for the concrete batching plant (see Appendix-1.2).
Environmental permit for concrete batching plant	Production facilities using cement and/or other binders to produce concrete, mortar, or similar materials, with a total capacity of 10 m³/hour or higher, fall under the requirements of Annex-II, Article 2.12 of the Regulation on Environmental Permit and Licenses. Given that the planned facility's capacity is 95 m³/hour, an environmental permit opinion must be obtained from the Provincial Directorate of Environment, Urbanization, and Climate Change. Accordingly, an application for a Temporary Activity Certificate must be submitted. Within 180 calendar days from the issuance of the Temporary Activity Certificate, an application for the environmental permit must be made, together with the information, documents, and reports specified in Annex-3C of the Environmental Permit and License Regulation	As the concrete batching plant is still in the installation phase, no action has yet been taken regarding the environmental permit process.
Package Wastewater Treatment Plant	A Package Wastewater Treatment Plant is planned to enable the reuse of treated wastewater for land irrigation and dust suppression activities, without planning for direct discharge into the receiving water bodies. In accordance with Circular No. 2018/14 on Wastewater Treatment / Deep Sea Discharge Facility Project Approval, a Technical Compliance Report must be prepared, and Project Approval must be obtained. The Wastewater Treatment Plant Identification Certificate must be acquired from the Provincial Directorate of Environment, Urbanization, and Climate Change. Additionally, necessary periodic measurements must be conducted, and the quantities of recovered water and/or discharged treated	As the installation of the package wastewater treatment plant has not yet commenced, no action has been taken in this regard. The design process and consultations with the relevant authorities are still ongoing.

Issue	Requirement	Current Status
	wastewater must be recorded in the Integrated Environmental Information System/Wastewater Information System.	
Temporary Waste Storage Area	In accordance with the Waste Management Regulation, if the quantity of hazardous waste generated exceeds 1,000 kg per month, a waste storage permit must be obtained from the Provincial Directorate of Environment, Urbanization, and Climate Change. Additionally, a Hazardous Waste Management Plan must be prepared, and a mandatory annual insurance policy for hazardous materials and hazardous waste must be secured.	Separate temporary waste storage areas for hazardous and non-hazardous wastes have been constructed in accordance with national legislation and international standards. The Hazardous Materials and Hazardous Waste Liability Insurance Policy was obtained on 28 October 2025 (see Appendix-1.3).
Fuel and Hazardous Substance Storage	Stored hazardous materials and fuels must be recorded in the BEKRA Notification System in accordance with the Regulation on the Control of Major Industrial Accidents. A 30-ton fuel tank (diesel fuel) will be installed within the construction site. Since this capacity is below the 2,500-ton threshold specified for lower-tier facilities in Annex-1, Sections 1 and 2 of the BEKRA Regulation, it is expected to be considered outside the scope of BEKRA. Nevertheless, to ensure effective environmental and occupational health and safety management, a blast protection document and a leak-tightness report will be prepared, and periodic inspections will be conducted regularly. Additionally, not only the fuel storage tank but also the accommodation area will obtain a Fire Safety Compliance Report from the relevant municipal authority.	After registration in the Integrated Environmental Information System and upon commencement of the operation of the construction camp site, an inventory of the stored hazardous materials will be prepared and a BEKRA Notification will be submitted.
Groundwater	In accordance with the Law on Groundwater, a Groundwater Exploration Permit and a Groundwater Utilization Permit must be obtained from the DSİ 6th Regional Directorate, and the purpose of use and quantity limits must be strictly adhered to. For human consumption or domestic use, the water quality parameters specified in the Regulation on Waters for Human Consumption must be fully complied with.	A Groundwater Exploration Permit (Ref: E-74503738-152.02.02-6186848, dated 08.08.2025) and a Groundwater Utilization Permit (Permit No: K-31346, dated 10.09.2025) have been obtained from the 6th Regional Directorate of State Hydraulic Works (DSİ) – Groundwater Department (see Appendix-1.4). Comprehensive water quality analyses in accordance with the project standards have not yet been conducted.
Cultural Heritage Status	Given the presence of two cultural heritage sites in the vicinity of the construction camp area, namely “Yanıkdeğirmen” and “Adsız Ruins” the opinion of the Hatay Regional Directorate for the Conservation of Cultural Heritage shall be obtained prior to the establishment of the construction camp area.	The correspondence and the relevant permits obtained from the Hatay Regional Board for the Protection of Cultural Heritage are presented in Appendix-1.5. Although the broader region is designated as a 1st Degree Archaeological Site, there are no registered cultural assets within the boundaries of the proposed Construction Camp Site; therefore, no constraints have been identified with respect to the planned works.

Issue	Requirement	Current Status
Electricity Supply and Connection	Under the Regulation on Environmental Permit and License, generators with a thermal capacity of 1 MW or more and less than 100 MW are subject to environmental permitting in accordance with Annex-2. Additionally, in accordance with Annex-5 of the Regulation on the Control of Industrial Air Pollution, if the annual operation of a generator (internal combustion engine) exceeds 500 hours, an emission report must be prepared. Generator maintenance must also be conducted regularly, and usage duration reports must be submitted to the Provincial Directorate of Environment, Urbanization, and Climate Change during the first quarter of the following year. The necessary permits for connection to the electricity grid to the construction camp site (including land use permits (right of easement) for the parcels through which the line will pass and the electricity connection permit) shall be obtained.	Within the scope of current activities, generators are being used until the electrical infrastructure is connected, which is expected to be completed by January 2026. Since the total thermal capacity is below 1 MW, an environmental permit is not required under the current conditions. The electrical connection to the İkizler Substation for the construction camp site has been provided through eight (8) newly installed electricity poles. All poles are located within the boundaries of the Erzin Organized Industrial Zone (OIZ), which has also allocated the construction camp area for the Project. No expropriation is required for the Electricity Transmission Lines. Relevant work permit and consent approval have been obtained from the Erzin OIZ, and provisional acceptance has been completed by the electricity distribution company's committee. Discussions with the "Turkish Electricity Transmission Corporation (TEİAŞ") and/or "Toroslar Electricity Distribution Incorporated Company" regarding the final approval are ongoing.

1.4.4 Environmental Baseline Measurements

In order to identify the potential environmental, social, health, and safety impacts associated with the construction camp site and the concrete batching plant activities, and to establish appropriate mitigation and preventive measures, air quality, noise level, water quality, and soil analyses have been conducted within the scope of this supplementary ESMP (see Figure 1-5 and Table 1-2). The analyses represent the baseline environmental conditions of the project area. During the operational activities of the construction camp site, these measurements will be repeated at the frequencies indicated in Table 1-2 to ensure the continuous monitoring and assessment of the project's environmental footprint and to verify the effectiveness of implemented mitigation measures.

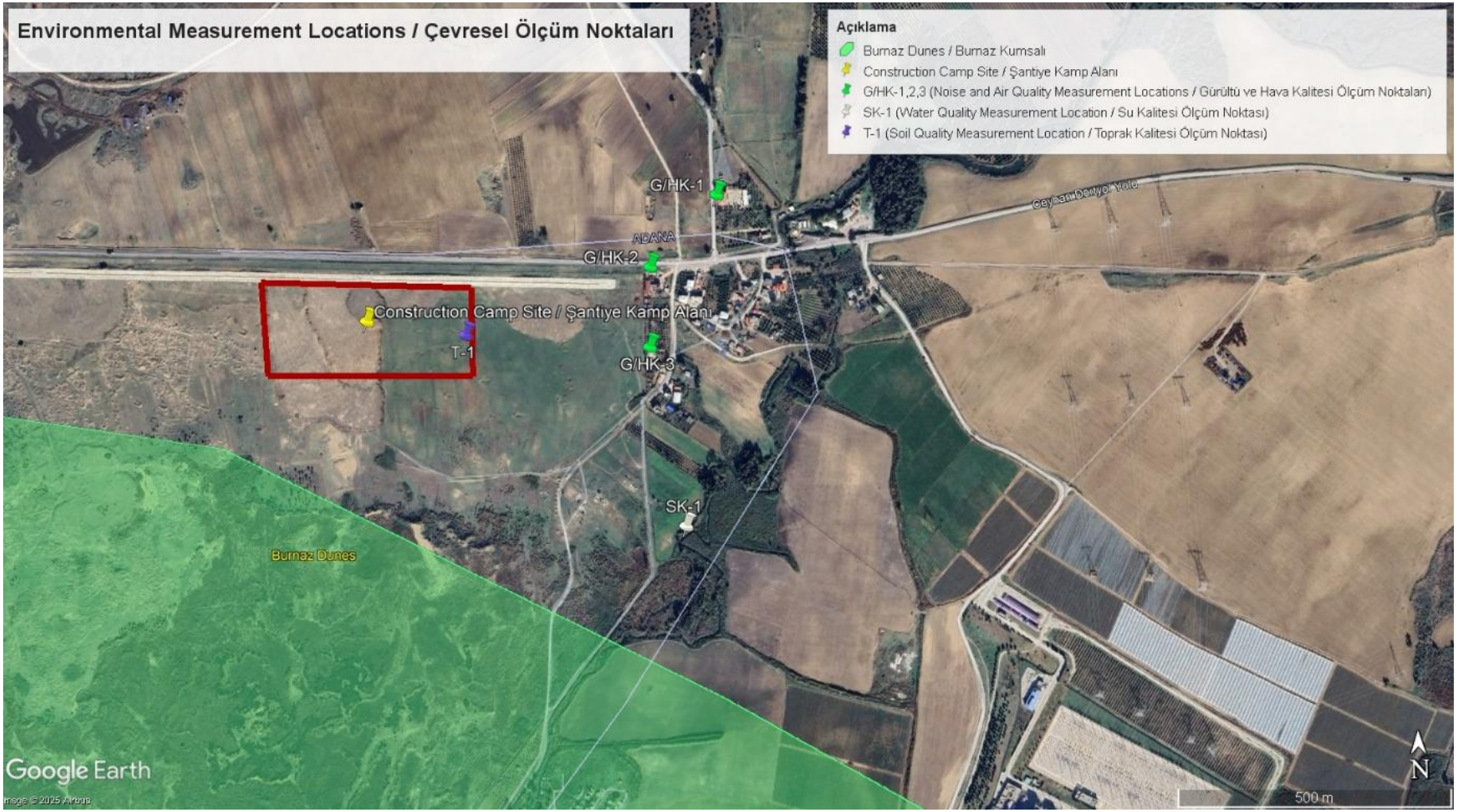


Figure 1-5. Environmental Measurement Locations

Table 1-2. Details of Environmental Measurements

Monitoring Point*	Coordinates		Monitoring Frequency	Monitoring Duration	Monitoring Parameters	Relevant Regulation and Standards
	Latitude	Longitude				
Noise Measurements						
G/HK-1	36.936664°	36.045218°	Quarterly during active work periods and in case of any grievances	48 hours without interruption	Noise	Environmental Noise Control Regulation (Official Gazette No. 32029, dated 30 November 2022) (Annex-2 Table 1) and WBG General EHS Guidelines (Table 1.7.1)
G/HK-2	36.935512°	36.043822°	Quarterly during active work periods and in case of any grievances	48 hours without interruption	Noise	
G/HK-3	36.934197°	36.043773°	Quarterly during active work periods and in case of any grievances	48 hours without interruption	Noise	
*Air Quality Measurements***						
G/HK-1	36.936664°	36.045218°	Quarterly during active work periods and in case of any grievances	24-hour (PM10, PM2,5) and 1-month (settled dust)	PM10, PM2,5 and settled dust	Regulation on the Control of Industrial Air Pollution (Official Gazette No. 27277, dated 3 July 2009) (Annex-2 Table 2.2) and WBG General EHS Guidelines (Table 1.1.1)
G/HK-2	36.935512°	36.043822°	Quarterly during active work periods and in case of any grievances	24-hour (PM10, PM2,5) and 1-month (settled dust)	PM10, PM2,5 and settled dust	
G/HK-3	36.934197°	36.043773°	Quarterly during active work periods and in case of any grievances	24-hour (PM10, PM2,5) and 1-month (settled dust)	PM10, PM2,5 and settled dust	
Surface Water Quality Measurement						
SK-1	36.931249°	36.044419°	In the event of a direct discharge into the receiving water body twice a year during active work periods and in case of any grievances	Instant measurement	Surface Water Quality Regulation Annex-5 Table 2	Surface Water Quality Regulation (Official Gazette No. 28483, dated 30 November 2012)
Soil Quality Measurement						
T-1	36.934832°	36.040701°	Once	Instant measurement	TOX, TPH, As, Be, Cd, Cr, Co, Cu, Hg, Ni, Pb, Sb, V, Zn	Regulation on the Control of Soil Pollution and Contaminated Sites from Point Sources (Official Gazette No. 27605, dated 8 June 2010)

**New monitoring points, not included in the ESIA, have been selected to conduct baseline measurements and assess the impacts of ongoing construction activities at the Construction Camp Site and Concrete Plant throughout the construction phase.*

*** As part of the environmental permitting process for the concrete batching plant, air emission measurements will be conducted, with confirmation measurements carried out every two years. Since a closed system will be established and dust suppression (watering) systems will be actively operated, it is expected that the limit values will not be exceeded. In the event that limit values are exceeded within the area of influence, measurements will be repeated after corrective and preventive actions are implemented.*

In addition, if the use of a groundwater well is planned for personnel consumption, all parameters specified under the “Regulation on Water Intended for Human Consumption” will be measured quarterly (seasonally). An exploration and utilization permit will be obtained from the State Hydraulic Works (DSİ). The water quality will be ensured to meet the standards for human consumption/use, and the measured values will also be compared with the World Health Organization (WHO) Drinking-water Quality Guidelines.

2 ROLES AND RESPONSIBILITIES

In accordance with the ESIA and ESMP commitments, as well as the Project's Terms of Reference, and to ensure that Project standards are met not only during the construction and operation of the construction camp site and the concrete batching plant but also throughout the railway construction phase, the Project—in coordination with the technical project team[3]—will employ the following key personnel:

- one Occupational Health and Safety Lead,
- one Environmental Lead,
- one Social Lead,
- one Archaeologist, and
- one Biodiversity Specialist.

In addition, Environmental Specialist(s), Social Specialist(s), and/or Community Liaison Officer(s) will be engaged as required, together with the procurement of environmental and OHS-related consultancy services.

Although the roles and responsibilities are explained in detail in the main ESMP document (in Section 5.2, Table 3), the roles and responsibilities of the Contractor's Environmental, Social, Health and Safety (ESHS) Project Management Team (PMT) along with the Supervision Consultant and the DGII PIU are summarized in Table 2-1.

Table 2-1. ESHS PMT Roles and Responsibilities

Role		Responsibility
Contractor's ESHS PMT	Project Manager and Construction Camp Site Manager	▪ Ensure full compliance with the C-ESMP and ESIA sub-plans for all camp site operations ▪ Obtain, maintain, and review all permits, approvals, and licenses; ensure timely renewals ▪ Supervise subcontractors and implement corrective actions for non-compliance ▪ Engage qualified Environment, Social, Health, and Safety (ESHS) personnel ▪ Organize regular ESHS training for all camp and project staff ▪ Monitor, record, analyze, and report environmental, social, and safety incidents to DGII
	Environmental Expert(s)	▪ Monitor key environmental aspects, including air quality, water and treated wastewater quality, solid and hazardous waste management, stormwater runoff and sediment control, noise and vibration levels from the camp site and concrete batching plant operations ▪ Implement preventive and corrective measures in case of non-compliances of the project standards ▪ Conduct environmental audits and prepare periodic compliance reports ▪ Organize environmental awareness and capacity-building programs
	OHS Expert(s)	▪ Conduct risk assessments for all camp site activities ▪ Enforce PPE use and safety protocols ▪ Develop, implement, and test emergency preparedness and response plans

[3] It includes the Project Manager (Contractor's Representative), Deputy Project Manager, Electro-Mechanical Works Deputy Project Manager, Topographical Engineer, and Electrical Works Engineers as key personnel.

Role		Responsibility
		▪ Perform inspections, drills, and audits of all camp areas ▪ Maintain OHS records and report on incidents, corrective measures, and training outcomes
	Social Expert(s)	▪ Ensure accommodation and living standards comply with national and international guidance ▪ Identify and mitigate social risks (worker–community interactions, labor rights, GBV, worker welfare) ▪ Oversee grievance mechanisms and ensure accessibility, responsiveness, and transparency ▪ Monitor community impacts (traffic, noise, dust, waste) ▪ Report social performance, risks, and mitigation measures to Project Manager
	Community Liaison Officer(s) (CLOs)	▪ Act as main contact with affected communities ▪ Communicate potential impacts of camp operations (noise, dust, traffic, night works) ▪ Receive, record, track, and resolve grievances and complaints ▪ Document community engagement activities and report to Social Expert
	Archaeologist(s)	▪ Monitor ground-disturbing works to prevent damage to cultural heritage ▪ Conduct pre-construction assessments and liaise with authorities for permits ▪ Manage chance finds, including recording, reporting, and implementing conservation measures
	Biodiversity Expert(s)	▪ Assess and manage biodiversity risks (vegetation clearance, wastewater, dust) ▪ Implement habitat protection and restoration measures (erosion control, stormwater management, revegetation) ▪ Train personnel on biodiversity awareness and incident reporting ▪ Manage invasive species risks
Supervision Consultant		▪ Oversee Contractor compliance with the C-ESMP ▪ Verify environmental, social, and safety performance ▪ Review reports, audits, and corrective actions ▪ Provide independent guidance and recommendations to the DGII PIU
DGII PIU		▪ Provide overall project oversight ▪ Ensure Contractor compliance with national and international standards ▪ Review and approve key documents, permits, and reports ▪ Monitor performance and coordinate with authorities and stakeholders ▪ Manage the coordination process with the World Bank, inform the Contractor of additional requirements, and oversee compliance throughout the implementation process

3 PROJECT STANDARDS

As part of the Project standards, full compliance will be ensured with national Turkish legislation, the World Bank Environmental and Social Framework (ESF), the Environmental and Social Standards (ESSs) defined under the ESF, with the exception of ESS7 and ESS9, the World Bank Group (WBG) Environmental, Health and Safety (EHS) Guidelines, IFC and EBRD Guide to Workers' Accommodation: Processes and Standards, ILO Conventions and Good International Industry Practice (GIIP).

In cases where there is a conflict between Turkish legislation and World Bank requirements, the stricter standard shall prevail to ensure maximum protection.

In this context, the construction phase and operation phase of the construction camp site and the concrete batching plant will be conducted in accordance with these requirements, thereby ensuring that environmental and social performance is maintained at the highest level (see the documents prepared under the scope of the Project, as specified in Section 1.3, for further details).

4 ENVIRONMENTAL AND SOCIAL RISKS&IMPACTS, MITIGATION MEASURES AND MONITORING ACTIVITIES

This section defines the potential environmental and social risks of the project and describes the relevant mitigation measures to prevent and/or minimize the negative impacts that may result from activities associated with the construction camp site management.

An environmental and social monitoring plan for the construction phase is also provided in this section to ensure that all mitigation measures are implemented, assess their effectiveness, and enable timely action when unexpected environmental or social incidents occur.

4.1 Land Use, Soil and Geology

4.1.1 Baseline Conditions

The construction camp site is located on non-arable land where no agricultural or livestock activities are currently conducted. The site does not contain any vegetative or fertile topsoil layer. The major soil group in the area has been classified as coastal sand dunes, which typically consist of loose, well-drained sandy soils with low organic matter content and limited fertility. In the northern section of the site, colluvial soils are present, characterized by heterogeneous material deposits formed through the downslope movement of soil and rock fragments due to gravity.

From a geological perspective, the site is characterized by Quaternary beach sand deposits (Qp). These deposits typically consist of well-sorted, medium to fine-grained sands formed by coastal sedimentation processes, indicative of relatively young and unconsolidated geological formations.

A single soil sample was collected from the project site by AEM Laboratory on 18 September 2025 (see Table 1-2 and Figure 1-5), serving as the reference point for determining the baseline condition of the soil. In other words, the analytical results of this sample will be used as baseline values to assess potential soil contamination at the project site following the operation of the construction camp, in case any indication of soil pollution arises (see also Appendix-3).

The project area in Hatay Province is located in a seismically active region, as indicated by the national earthquake hazard maps published by the Disaster and Emergency Management Authority (AFAD). All construction activities, including the establishment of the camp and associated infrastructure, will be designed and executed in accordance with national seismic design standards to mitigate potential earthquake risks.

The analytical results were compared with the limit values specified in Section 15.1 of the Canadian Environmental Protection Act and those outlined in the Regulation on the Control of Soil Pollution and Contaminated Sites from Point Sources, in order to establish the baseline soil contamination status, in accordance with the methodology presented in the ESIA document. The analysis results and corresponding limit values are presented in Table 4-1. The analytical results are below the guideline values established in the soil quality standards. Taking into account the prior condition of the construction camp site, the site can be considered unaffected by anthropogenic activities.

Table 4-1. Analysis Results of the Soil Sample

Parameter*	Unit	T-1	Soil Quality Standards[4]				National Legislation (Regulation on the Control of Soil Pollution and Contaminated Sites from Point Sources)		
			Agricultural Use	Use for Residential / Parking Areas	Use for Commercial Purposes	Use for Industrial Purposes	Absorption through soil ingestion and skin contact	Inhalation of volatile substances in the ambient environment	Inhalation of fugitive dust in the ambient environment
Antimony (Sb)	mg/kg	2.65	20	20	40	40	31	-	-
Arsenic (As)	mg/kg	4.15	12	12	12	12	0.4	-	471
Copper (Cu)	mg/kg	16	63	63	91	91	3129	-	-
Beryllium (Be)	mg/kg	<2.5	4	4	8	8	0.1	-	843
Mercury (Hg)	mg/kg	<0.025	6.6	6.6	24	50	23	3	-
Zinc (Zn)	mg/kg	44	250	250	410	410	23464	-	-
Cadmium (Cd)	mg/kg	1.1	1.4	10	22	22	70	-	1124
Cobalt (Co)	mg/kg	5.35	40	50	300	300	23	-	225
Lead (Pb)	mg/kg	51.4	70	140	260	600	400	-	-
Nickel (Ni)	mg/kg	17.2	45	45	89	89	1564	-	-
Vanadium (V)	mg/kg	23.7	130	130	130	130	548	-	-
Chromium (Cr)	mg/kg	30.8	64	64	87	87	235	-	24
Total Petroleum Hydrocarbons (TPH)	mg/kg	<25	-	-	-	-	-	-	-
Total Organic Halogens (TOX)	mg/kg	15	-	-	-	-	-	-	-

* The parameters were determined in accordance with Table 2 of the Regulation on the Control of Soil Pollution and Contaminated Sites from Point Sources, and within the framework of the relevant NACE code.

[4] Soil Quality Standards set by the Canadian Council of Environment Ministers for the Protection of the Environment and Human Health

4.1.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

Potential impacts and risks, along with corresponding mitigation measures and monitoring plans related to land use, soil and geology management, are presented in Table 4-2.

Table 4-2. Land Use, Soil and Geology – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Soil Disturbance and Erosion	Construction and Operation	▪ Increased soil erosion and sedimentation due to excavation, grading and earthmoving activities ▪ Contribution of water pollution and disruption of natural drainage systems due to sediment runoff	▪ Prior to commencing land preparation and construction works, erosion and sediment control strategies such as drainage channels and settling structures will be implemented. ▪ During periods of heavy rainfall, stormwater from the camp site and surrounding slopes will be redirected through properly designed temporary drainage channels, berms, and soil embankments. ▪ Slope stabilization techniques such as riprap installation, use of geotextile materials, or vegetation cover will be implemented, particularly at culvert outlets and along embankments. ▪ Designated areas for temporary storage of excavated materials will be clearly demarcated and located away from drainage lines and water bodies. ▪ All disturbed or exposed soil surfaces, including utility trenches, access roads, and work zones, will be regraded, compacted, and revegetated immediately after construction works are completed. Native vegetation or fast-growing ground cover species will be used to promote natural stabilization and reduce erosion potential. ▪ The Contractor's Construction Rehabilitation and Landscape Management Procedure will be implemented.	▪ Topography changes ▪ Existence of sediment control structures ▪ Effectiveness of erosion control measures	▪ Construction Camp Site	▪ On-site visual observations/inspections	Daily	▪ Regulation on the Control of Soil Pollution and Lands Polluted by Point Sources ▪ Regulation on the Control of Excavation Soil, Construction and Demolition Wastes ▪ ESS3: Resource Efficiency and Pollution Prevention and Management ▪ WBG EHS Guidelines ▪ Contractor's Construction Rehabilitation and Landscape Management Procedure	▪ Construction and maintenance of interception and drainage channels ▪ Extent of successful vegetative growth at revegetated sites and its ratio to the total designated revegetation area	Contractor EHS Team
Soil Contamination	Construction and Operation	▪ Soil contamination risk originated from accidental spill/leakage and improper management of hazardous materials and waste	▪ The discharge of any materials that could cause soil contamination will be strictly prohibited. ▪ Construction machinery will be regularly maintained to prevent fuel and oil leaks. ▪ Chemicals will be stored on impermeable surfaces and within enclosed, well-ventilated areas to prevent leaks and soil contamination. In cases where chemicals are used or temporarily stored in open areas, secondary containment structures, drip trays, and spill response kits will be provided and used to control and contain potential spills or leakages. ▪ Personnel must be provided with the necessary training on spill prevention and response. ▪ Accidental spills and leaks will be addressed through the implementation of the Contractor's Emergency Preparedness and Response Procedure. ▪ Solid waste, hazardous materials, and wastewater generated during land preparation and construction along the project route will be managed in accordance with the Contractor's Waste Management	▪ Existence of soil contamination ▪ Incident records ▪ Soil sampling analysis report ▪ Disposal of contaminated soil ▪ Training records	▪ Construction Camp Site	▪ On-site observations/inspections ▪ Documentation review	In the event of any suspicion of contamination and/or a grievance	▪ Regulation on Soil Pollution Control and Point Source Contaminated Sites ▪ ESS3: Resource Efficiency and Pollution Prevention and Management ▪ WBG EHS Guidelines ▪ Contractor's Emergency Preparedness and Response Procedure ▪ Contractor's Waste Management Procedure ▪ Contractor's Pollution Prevention Procedure	▪ Number of leakage/spill incidents ▪ Number of non-compliances with applicable standards (Target: Zero non-compliance) ▪ Amount of contaminated soil and the quantity transported to licensed disposal facilities ▪ Number and percentage of personnel trained in emergency response to spills and leaks	Contractor EHS Team

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
			Procedure and Pollution Prevention Procedure. ▪ Soil sampling will be conducted whenever contamination is suspected during the land preparation and construction phases or as required in response to complaints.							
Disaster Management	Construction and Operation	▪ Seismicity related risks	▪ All engineering structures to be constructed as part of the construction camp site installation will be designed and built in accordance with earthquake-resistant design parameters and criteria. ▪ The construction of all structures within the scope of the project will strictly adhere to the provisions of the “Regulations for Structures to be Built in Disaster Areas,” published in the Official Gazette No. 26582 on 14.07.2007, and the “Türkiye Building Earthquake Code” issued by the Disaster and Emergency Management Authority in the Official Gazette No. 30364, dated 18.03.2018, which came into effect on 01.01.2019. ▪ The Contractor’s Emergency Preparedness and Response Procedure will be activated in the event of an earthquake.	▪ Design of engineering structures ▪ Slope stability ▪ Building permits and certificates	▪ Construction Camp Site	▪ On-site observations/inspections ▪ Documentation review	Weekly and following any occurrence of a disaster	▪ Regulations for the Structures to be Built in Disaster Areas ▪ Türkiye Building Earthquake Code ▪ ESS1: Assessment and Management of Environmental and Social Risks and Impacts ▪ WBG EHS Guidelines ▪ Contractor’s Emergency Preparedness and Response Procedure	▪ Number of related OHS accidents/incidents recorded during and after natural disaster ▪ Effective implementation of the Emergency Preparedness and Response Procedure ▪ Damage situation after the earthquake	Contractor EHS Team

4.2 Noise

4.2.1 Baseline Conditions

The project site is located in a semi-rural area characterized by mixed land use, as described in Chapter 4.1.1. There are no major industrial facilities or high-traffic roads in the immediate vicinity, except for Adana-Ceyhan-Dörtyol Road. The existing ambient noise levels are considered to be caused by local traffic, human activities, and natural background sounds such as wind and birds.

The baseline measurements mentioned in Chapter 1.6 were conducted to determine the current noise levels within the AoI of the planned construction camp site. The measurement points are presented in Figure 1-5, and the analysis results are provided in Table 4-3. According to the results of noise measurements conducted by AEM Laboratory (see also Appendix-3), the baseline noise levels were already close to WBG EHS Guidelines nighttime limit values prior to the commencement of construction activities.

Table 4-3. Noise Measurement Results

Measurement Point	Date	Coordinates & Location	Results (dBA)				
			Turkish Regulation (ENCR)			WBG EHS Guidelines	
			Day (07:00-19:00)	Evening (19:00-23:00)	Night (23:00-07:00)	Day (07:00-22:00)	Night (22:00-07:00)
G-1	18.09.2025	36.936664°, 36.045218° Yukarıburnaz Neighborhood/ Erzin/Hatay	52.1	50.6	44.4	51.9	44.6
	19.09.2025		51.8	49.7	43.9	48.9	44.1
	20.09.2025		51.7	49.6	44.2	49.2	44.2
G-2	18.09.2025	36.935512°, 36.043822° Yukarıburnaz Neighborhood/ Erzin/Hatay	51.9	49.9	44.9	49.3	44.3
	19.09.2025		52.2	50.5	44.5	50.1	44.1
	20.09.2025		50.8	50.4	44.2	49.5	43.9
G-3	18.09.2025	36.934197°, 36.043773° Yukarıburnaz Neighborhood/ Erzin/Hatay	51.4	50.3	43.7	49.2	43.8
	19.09.2025		51.9	49.4	43.5	48.6	43.7
	20.09.2025		51.1	49.8	44.1	48.9	44.1
Turkish Regulation (ENCR) Noise Limit Values			**65**	**60**	**55**	**-**	**-**
World Bank Group EHS Guidelines Environmental Noise Limit Values – Residential, institutional, educational			**-**	**-**	**-**	**55**	**45**

4.2.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

This section describes the potential noise and vibration impacts that may occur during both the construction and operational phases of the construction camp site. The main sources of noise during the construction phase are expected to include heavy machinery operation, truck movements, excavation, and material handling activities, while operational phase impacts will primarily result from the continuous operation of the concrete batching plant and associated traffic.

If not effectively managed, these impacts may lead to temporary disturbances to nearby residents, workers, and wildlife, as well as potential health and safety risks associated with prolonged exposure to elevated noise levels. Accordingly, mitigation and monitoring measures have been developed in line with the key documents outlined in Chapter 1.3. Table 4-4 summarizes the identified issues, associated mitigation measures, monitoring requirements, and performance indicators.

Table 4-4. Noise – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Noise Management	▪ Construction and Operation	▪ Increased noise levels resulting from campsite activities (i.e. construction noise from heavy machinery and trucks, the noise from operation of the concrete batching plant, elevated noise levels during generator operation)	▪ All construction activities will be conducted in compliance with the provisions of Environmental Noise Control Regulation (ENCR) and the noise limit values specified in both the ENCR and WBG General EHS Guidelines. ▪ The Contractor's ESMP, Noise and Vibration Management Procedure, Pollution Prevention Procedure and Traffic Management Plan will be implemented. ▪ The Project Grievance Mechanism will be implemented. Any noise-related complaints received through the Grievance Mechanism will be evaluated, and corrective actions will be planned and implemented where necessary. ▪ Construction activities will be carried out only during the daytime (07:00–22:00, as specified by international standards). ▪ Machinery, equipment, and vehicles with lower sound power levels and sound-reduced models will be preferred, with newer and electrically driven models being used. ▪ The generators will be located as far as practicable from accommodation and office units. Their use will be limited to essential periods — during the construction phase until the electricity connection is established, and during the operation phase only in emergency situations. Nighttime operation will be avoided where possible. ▪ Low-noise generator models will be used, and regular maintenance will be conducted to prevent excess noise. ▪ Regular maintenance of construction vehicles will be conducted through a vehicle maintenance and repair program recommended by the manufacturer. ▪ Speed limits for construction vehicles will be defined and adhered to. Relevant training and instructions on speed limits will be provided to construction vehicle drivers/operators. ▪ The driving of construction vehicles through settlements will be avoided where possible. ▪ Keeping the vehicles running will be prohibited while waiting on the construction site.	▪ EIA opinion and environmental permit for the concrete batching plant ▪ Noise-related grievance records ▪ Preventive and corrective measures taken ▪ Noise measurements ▪ Generator operation time tracking records ▪ Correspondence with the relevant stakeholders ▪ Maintenance activities ▪ Training records	▪ Construction camp site ▪ Sensitive receptors within the AoI	▪ On-site observations/ inspections ▪ Documentation review	Daily (on-site visual observations) In case of noise-related grievance Quarterly (noise measurements) Monthly (document review)	▪ Environmental Noise Control Regulation ▪ ESS3: Resource Efficiency and Pollution Prevention and Management ▪ WBG EHS Guidelines ▪ Contractor's ESMP ▪ Contractor's Noise and Vibration Management Procedure	▪ No exceedance of noise limit values ▪ Number of noise-related grievances ▪ Number and percentage of the personnel trained in noise management	Contractor EHS Team

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
			▪ Noise monitoring5 will be conducted through noise measurements in accordance with national legislation and the WBG EHS Guidelines, on a quarterly basis during the construction phase and in response to complaints. Additional noise mitigation measures, such as the installation of noise barrier structures/panels, will be implemented if noise levels exceed the limit values. ▪ Environmental training will be provided for site personnel, focusing on reducing noise caused by project activities. ▪ Necessary measures will be taken to protect employees from noise-related risks in accordance with the "Occupational Health and Safety Law No. 6331," particularly to safeguard against hearing risks resulting from exposure to machinery and equipment noise. ▪ Communities and settlements will be notified about potential noise levels during the construction phase due to heavy machinery use.							

[5] The noise monitoring will be conducted at three (3) points; G-1: 36.936664°, 36.045218°, G-2: 36.935512°, 36.043822°, G-3: 36.934197°, 36.043773°

4.3 Air Quality and Odor

4.3.1 Baseline Conditions

Since the planned camp site area is located in a semi-rural setting with limited anthropogenic air pollution sources, the existing air quality in the area is primarily influenced by local traffic, domestic heating, and agricultural activities such as soil tilling and biomass during seasonal periods. There are no significant industrial facilities nearby that could contribute to elevated pollutant levels.

To assess the impacts that may result from the construction and operational activities of the Construction Camp Site, three sampling points were selected considering the nearest sensitive receptors. Air quality measurements were conducted at these points for particulate matter (PM_{10} and $PM_{2.5}$) and settled dust by AEM Laboratories. The measurement points are presented in Figure 1-5, and the analysis results are provided in Table 4-5 and Table 4-6, respectively (see also Appendix-3).

As shown in the tables, the ambient air quality measurement results are below the limit values specified in WBG EHS Guidelines, and Turkish Regulation on the Control of Industrial Air Pollution.

Table 4-5. PM10 and PM2.5 Measurement Results

Measurement Location	Date	Coordinates (Lat, Long)	Neighborhood/ District/ Province	Measurement Results (µg/Nm^3)	
				PM_{10}	$PM_{2,5}$
HK-1	18.09.2025	36.936664°, 36.045218°	Yukarıburnaz/ Erzin/ Hatay	15.24	5.49
HK-2	19.09.2025	36.935512°, 36.043822°		14.93	5.21
HK-3	20.09.2025	36.934197°, 36.043773°		15.16	4.96
Turkish Air Quality Standards				**50**	**-**
WBG EHS Guidelines – WHO Ambient Air Quality Standards				**50**	**25**

Table 4-6. Settled Dust Measurement Results

Measurement Location	Date	Coordinates (Lat, Long)	Neighborhood/ District/ Province	Receptor	Measurement Results (mg/m^2 day)
HK-1	18.09.2025-18.10.2025	36.936664°, 36.045218°	Yukarıburnaz/ Erzin/ Hatay	Turunçlu Burnaz Primary School	237.6
HK-2	18.09.2025-18.10.2025	36.935512°, 36.043822°		The Closest Settlement	221.1
HK-3	18.09.2025-18.10.2025	36.934197°, 36.043773°		Yanık Değirmen Mosque	224.8
Turkish Air Quality Standards (Regulation on the Control of Industrial Air Pollution)					390

4.3.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

This section identifies and assesses the potential air quality impacts that may arise during both the construction and operational phases of the construction camp site. The main sources of air emissions are expected to include dust generation from excavation and material handling, exhaust emissions from construction machinery and vehicles, and particulate matter emissions from the operation of the concrete batching plant. These emissions, if not properly managed, could result in temporary deterioration of local air quality and potential nuisance to nearby sensitive receptors.

Mitigation measures have therefore been developed to minimize and control emissions through the implementation of the key documents outlined in Chapter 1.3. The following table summarizes the identified issues, associated risks, proposed mitigation measures, and corresponding monitoring requirements.

Table 4-7. Air Quality and Odor – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Air Quality Management	▪ Construction and Operation	▪ Decrease in air quality due to emissions generated by construction camp site activities ○ Dust generation from excavation, earthworks, and vehicle movement ○ Exhaust emissions from construction machinery and vehicles ○ Operation of concrete batching plant ○ Storage and handling of aggregates, cement, and chemicals ○ Air emissions from generators	▪ All construction activities will be conducted in compliance with the provisions of Regulation on the Control of Industrial Air Pollution and WBG EHS Guidelines. ▪ As part of the environmental permitting process for the concrete batching plant, air emission measurements will be conducted, with confirmation measurements carried out every two years. Since a closed system will be established and dust suppression (watering) systems will be actively operated, it is expected that the limit values will not be exceeded. If limit values are exceeded within the area of influence, measurements will be repeated after corrective and preventive actions are implemented. ▪ The C-ESMP, Contractor's Air Quality and Dust Management Plan, Traffic Management Plan and Pollution Prevention Procedure will be implemented. ▪ The Project Grievance Mechanism will be implemented. Any air quality-related complaints received through the Grievance Mechanism will be evaluated, and corrective actions will be planned and implemented where necessary. ▪ Dust suppression methods such as watering with water trucks and applying non-toxic anti-dust chemicals will be applied to all exposed surfaces (construction camp site, service roads, etc.). ▪ Loading and unloading materials will be conducted without throwing or scattering. ▪ In compliance with the "Exhaust Gas Emission Control and Gasoline and Diesel Quality Regulation" (Official Gazette No. 28837, dated 30.11.2013), only vehicles that have undergone traffic inspections and exhaust gas emission measurements will be used. Vehicles requiring maintenance will be serviced after routine checks, and alternative vehicles will be used until maintenance is completed. ▪ Employees will be required to adhere to traffic laws, and special attention will be given to ensure loading is conducted in accordance with established standards. ▪ Excavated materials will be covered with nylon canvas or materials with a grain size larger than 10 mm during transportation. ▪ Where necessary, windshields or barriers will be installed around material storage sites to prevent the spread of dust emissions. ▪ Access roads to construction camp site will be upgraded and maintained as necessary.	▪ Relevant EIA opinions and environmental permits for the concrete batching plant ▪ Grievance records on air quality ▪ Preventive and corrective measures taken ▪ Air quality measurements ▪ Vehicle emissions ▪ Training records	▪ Construction camp site ▪ Sensitive receptors within the AoI	▪ On-site observations/ inspections ▪ Documentation review	Daily (on-site visual observations) In case of air quality-related grievance Quarterly (air quality measurements) Monthly (document review)	▪ Regulation on Air Quality Assessment and Management ▪ Regulation on the Control of Industrial Air Pollution ▪ Exhaust Gas Emission Control and Gasoline and Diesel Quality Regulation ▪ ESS3: Resource Efficiency and Pollution Prevention and Management ▪ WBG EHS Guidelines ▪ Contractor's Pollution Prevention Procedure ▪ Contractor's Air Quality and Dust Management Plan ▪ Contractor's Traffic Management Plan	▪ No exceedance of air quality limit values observed in air quality measurements ▪ Number of air quality related grievances ▪ Number and percentage of the personnel trained in air quality management	Contractor EHS Team

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
			▪ Construction vehicle routes through settlements will be avoided whenever possible. ▪ In accordance with Annex-5 of the Regulation on the Control of Industrial Air Pollution, if the annual usage of a generator (internal combustion engine) exceeds 500 hours, an emission report must be prepared. Additionally, generator maintenance must be conducted regularly, and usage duration reports must be submitted to the Provincial Directorate of Environment, Urbanization, and Climate Change in the first quarter of the following year. ▪ Air quality monitoring6 (covering PM10, PM2.5, and settled dust levels) will be carried out in accordance with both Regulation on the Control of Industrial Air Pollution and the WBG General EHS Guidelines (quarterly for the construction phase at the nearby settlements and upon grievance). ▪ Loading and unloading materials will be conducted without throwing or scattering.							
Odor Management	▪ Operation	▪ Odor generation from wastewater treatment plant, concrete batching plant, fuel storage and temporary waste storage areas	▪ All odor-generating activities will be managed in compliance with the provisions of the Regulation on the Control of Industrial Air Pollution, the Regulation on Urban Wastewater Treatment, and the WBG EHS Guidelines. ▪ The package wastewater treatment plant (WWTP) will be properly enclosed and ventilated to minimize odor emissions. ▪ Sludge and wastewater will not be stored for prolonged periods; sludge will be regularly removed and transported in closed, leak-proof containers. ▪ All waste and wastewater storage areas will be covered or enclosed where practicable to avoid odor dispersion. ▪ Fuel and chemical containers will be sealed and regularly inspected to prevent leaks or spills. ▪ Drainage systems will be maintained to prevent stagnant water or organic material buildup. ▪ Regular maintenance will be carried out for WWTP pumps, blowers, and pipelines to ensure proper operation and prevent leakages or overflow. ▪ The Project Grievance Mechanism will be implemented. Any odor-related complaints received through the Grievance Mechanism will be evaluated, and corrective actions will be planned and implemented where necessary.	▪ Grievance records on odor ▪ Preventive and corrective measures taken ▪ Sludge removal records	▪ WWTP area ▪ Sensitive receptors within the AoI	▪ On-site observations/ inspections ▪ Documentation review	Daily (on-site visual observations) In case of odor-related grievance Monthly (document review)	▪ Regulation on the Control of Industrial Air Pollution ▪ ESS3: Resource Efficiency and Pollution Prevention and Management ▪ WBG EHS Guidelines ▪ Contractor's Pollution Prevention Procedure	▪ No verified odor-related community or worker complaints ▪ No stagnant wastewater or sludge accumulation observed ▪ Sludge removal frequency and transport conditions	Contractor EHS Team

[6] The air quality will be monitored quarterly at three (3) points; HK-1: 36.936664°, 36.045218°, HK-2: 36.935512°, 36.043822°, HK-3: 36.934197°, 36.043773°

4.4 Water Resources and Wastewater Management

4.4.1 Baseline Conditions

Water Resources

A surface water body (see SK-1 monitoring point on Figure 1-5) is located approximately 550 meters east of the Construction Camp Site and discharges into the Mediterranean Sea at Burnaz Beach. A single water quality sampling point has been designated in this water body to establish baseline conditions (see Figure 1-5 and Table 1-2). Although direct discharge to the water body is not planned following the installation of the packaged Wastewater Treatment Plant (WWTP)—as treated wastewater is intended for reuse in dust suppression and land irrigation—this sampling point has been selected to monitor current conditions and assess potential impacts in the event that a decision is made to discharge treated water into the surface water body.

On the other hand, although the Burnaz Spring Group Groundwater Sources Strict Protection Zone is located approximately 700 meters north of the Construction Camp Site, the project area is situated downstream of this zone, and therefore no impacts are anticipated. The potential impacts and risks of the railway project are addressed in the ESIA document, while the C-ESMP also emphasizes mitigation measures and management strategies to minimize such effects.

The results of the water quality measurement, conducted by AEM Laboratory on 18.09.2025, are presented in Table 4-8 (see also Appendix-3). Elevated concentrations of orthophosphate and total phosphorus, in conjunction with low Biochemical Oxygen Demand, Chemical Oxygen Demand and Total Nitrogen values, indicate that the phosphorus loading is unlikely to originate from point sources. This pattern is consistent with diffuse pollution, potentially arising from the use of phosphate-based agricultural fertilizers in the surrounding catchment/river basin area.

Table 4-8. The Analysis Results of Surface Water Sample

Parameter	Unit	Water Quality*			Analysis Results
		Class I (Very Good)	Class II (Good)	Class III (Moderate)	SK-1 (36.931249, 36.044419)
pH	-	6-9	6-9	6-9	7.92
Oil and Grease**	mg/L	<0.2	0.3	>0.3	<1
Color (436 nm)	m^{-1}	RES 436 nm: ≤ 1.5	RES 436 nm: 3	RES 436 nm: > 4.3	0.18
Color (525 nm)	m^{-1}	RES 525 nm: ≤ 1.2	RES 525 nm: 2.4	RES 525 nm: > 3.7	0.12
Color (620 nm)	m^{-1}	RES 620 nm: ≤ 0.8	RES 620 nm: 1.7	RES 620 nm: 2.5	0.46
Conductivity	µS/cm	<400	1000	>1000	465
Dissolved Oxygen	mg/L	>8	6	<6	8.69
Chemical Oxygen Demand (COD)	mg/L	<25	50	>50	<10
Biological Oxygen Demand (BOD)	mg/L	<4	8	>8	3.6
Ammonium Nitrogen	mg/L	<0.2	1	>1	0.04
Nitrate Nitrogen	mg/L	<3	10	>10	0.93
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.5	1.5	>1.5	0.14
Total Nitrogen	mg/L	<3.5	11.5	>11.5	1.15
Ortho Phosphate Phosphorus	mg/L	<0.05	0.16	>0.16	158
Total Phosphorus	mg/L	<0.08	0.2	>0.2	262
Fluoride	µg/L	≤1000	1500	>1500	<1000
Manganese	µg/L	≤100	500	>500	<1
Selenium	µg/L	≤10	15	>15	<10
Sulfur	µg/L	≤2	5	>5	<100

** (a) Purpose of use of water as per quality classes:* *Class I - Water with High Quality (implies that the status of water is "Very good");*	*1) Surface waters with a high potential of being utilized as drinking water,* *2) Water usable for recreational purposes, including those that require body contact, such as swimming,* *3) Water that can be used for trout production,* *4) Usable water for animal production and farm needs,*
Class II. - Slightly Contaminated Water (implies that the status of water is "Good");	*1) Surface waters with a high potential of being utilized as drinking water,* *2) Water usable for recreational purposes,* *3) Water that can be used for fish production other than trout,* *4) Irrigation water provided that it meets the irrigation water quality criteria determined by the legislation,*
Class III. - Contaminated water (implies that the status of water is "Moderate");	*It refers to water and industrial water that can be used for aquaculture after appropriate treatment, excluding facilities that require qualified water such as food and textiles.*
***The analysis of the "Oil and Grease" parameter cannot be determined at a level lower than 10 by the relevant laboratory. Therefore, it could not be classified.*	

4.4.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

Planned activities related to water and wastewater management are presented in Table 4-9, while potential impacts and risks, together with corresponding mitigation measures and monitoring plans for water resources and wastewater management, are provided in Table 4-10.

Table 4-9. Planned Activities Associated with Water and Wastewater Management

Issue	Planned Activities	Project Phase
Usage of Drinking and Domestic Water	It is planned to use commercially bottled drinking water as the primary source of potable water, whereas utility water is supplied from the municipal network purchased from nearby settlements.	Construction
	It is planned to use commercially bottled drinking water as the primary source of potable water for site personnel during the operation phase. In terms of domestic water needs of personnel, upon obtaining the required Groundwater Exploration and Utilization Permit from the State Hydraulic Works (DSİ), and provided that analytical test results confirm compliance with the limit values set forth in the Regulation on Water Intended for Human Consumption and the World Health Organization (WHO) Drinking Water Quality Guidelines, groundwater will subsequently be utilized as an alternative source of domestic water for personnel. In the event that the monitoring results indicate non-compliance with the prescribed quality thresholds, an industrial-scale drinking water treatment unit will be installed to ensure that all water supplied for human consumption conforms to the applicable standards. Currently, there is a Groundwater Exploration Permit (No. E-74503738-152.02.02-6186848) issued by the Ministry of Agriculture and Forestry – General Directorate of State Hydraulic Works (DSİ) – 6th Regional Directorate – Groundwater Department on August 8, 2025, and a Groundwater Utilization Permit (No. K-31346, dated September 10, 2025). The intended use of the water is for industrial purposes (firefighting, landscaping, and cleaning), with an extraction amount of 144 tons per day. According to the analysis report prepared by Southern Environmental Measurement and Analysis Laboratory, the groundwater is suitable for laundry, dishwashing, and shower use (see Appendix-1.4). A more comprehensive analysis in accordance with the project standards will be conducted prior to its use for human consumption. According to the TURKSTAT database (for 2022), per capita daily water consumption in Hatay Province is 191 liters. Based on a maximum expected population of 300 people, daily water consumption at the construction site camp is estimated to be approximately 57.3 m³.	Operation
Process Water	The process water required for dust suppression activities and construction works will be supplied as transported water by water trucks.	Construction
	<u>Water Management for the Concrete Plant</u> For industrial purposes, water required by the concrete batching plant will be sourced from a groundwater well, if the volume of physically treated wastewater in the settling pond is insufficient due to production capacity. Wastewater generated from the washing of the concrete batching plant and transit mixers will be collected in a settling pond. Upon issuance of the relevant Technical Compliance Report and Wastewater Treatment Plant Exemption Letters, this wastewater will be treated and recovered for reuse to meet the water demand of the concrete batching plant. <u>Water Management for the Construction Camp Site</u>	<u>Operation</u>

Issue	Planned Activities	Project Phase
	Furthermore, domestic wastewater treated in the packaged wastewater treatment plant, which will be established for land irrigation and dust suppression measures, and/or wastewater generated from maintenance/repair areas or vehicle washing units, will undergo an oil separation and/or filtration process. Following the issuance of the relevant Technical Compliance Report and approval by the Provincial Directorate of Environment, Urbanization, and Climate Change, the recovered water will be reused, provided that it complies with the limit values specified in the Water Pollution Control Regulation and the Communiqué on Technical Procedures for Wastewater Treatment Plants (Annex-7, Table 7.1, Category A and/or B) and/or meets the criteria outlined in the WWTP Identity Certificate.	
Wastewater Management	During the construction phase, only domestic wastewater generated from personnel activities will be produced. The wastewater will be stored in impermeable septic tanks and will be periodically collected by vacuum trucks belonging to Hatay Metropolitan Municipality and then transported to a licensed wastewater treatment plant with sufficient capacity.	Construction
	Domestic and industrial wastewater generation is anticipated at the Construction Camp Site during the operation phase. Wastewater originating from personnel activities is planned to be treated in a packaged wastewater treatment plant with a design capacity of approximately 60 m³/day, based on an equivalent population of up to 300 people, and the treated effluent is planned to be reused for land irrigation and dust suppression activities within designated areas of the construction camp site either by means of water trucks or through a dedicated water infrastructure, where it will be sprayed directly onto landscaped areas using a sprinkler system. No discharge to surface water is planned. Following the issuance of project approval and the Wastewater Treatment Plant (WWTP) identification certificate, sampling will be conducted periodically in accordance with the specified parameters to ensure full compliance with project standards. In addition, the raw water entering the packaged WWTP will be stored in the equalization/settling tank, and the effluent from the treatment process will also be retained in the tank. Chlorination will be carried out where necessary to prevent odor and microbial problems. The influent and effluent water will be regularly monitored to ensure treatment efficiency. In the event of an emergency, the system is designed to prevent mandatory discharge of wastewater to the receiving environment, ensuring that all wastewater can be safely retained within the storage tanks. Separately, industrial wastewater generated from maintenance, repair, and vehicle washing units will be collected in a septic tank after undergoing oil separation and/or filtration. Upon issuance of the Technical Compliance Report and approval from the Provincial Directorate of Environment, Urbanization, and Climate Change, this wastewater will similarly be reused for land irrigation at designated locations within the site. Finally, wastewater generated from the operations of the concrete batching plant will, following the receipt of the Technical Compliance Report and approval from the Provincial Directorate of Environment, Urbanization, and Climate Change, be recovered and reused within the concrete production process.	Operation

Table 4-10. Water Resources and Wastewater Management - E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Surface Water Quality and Surface Flow	Construction and Operation Phase	▪ Degradation impacts on surface water quality due to improper management of the wastewater, waste and chemicals/hazardous substances along with surface runoff resulting in sediment accumulation on the waterbody ▪ Impacts on surface water flow and flood risk due to poor management of surface runoff	▪ Especially for the construction phase of the construction camp site, as there is no wastewater (sewage) system within the project area or its immediate surroundings, all generated wastewaters will be collected in an impermeable septic tank, in compliance with the "Regulation on Pit Opening Where Sewer System Construction is Not Applicable," published in the Official Gazette No. 13783, dated 19.03.1971. Once the septic tanks reach capacity, the wastewater will be removed by sewage trucks and disposed of through a municipality (Hatay Water and Sewerage Administration) with a licensed wastewater infrastructure system, in accordance with a formal protocol. All wastewater transfer receipts shall be properly documented, and, where necessary, photographic evidence shall be obtained to verify both the receiving vehicle and the execution of the pumping operation. ▪ For the operation phase of the construction camp site, wastewater originating from personnel activities is planned to be treated in a packaged wastewater treatment plant (WWTP) with a design capacity of approximately 60 m³/day, based on an equivalent population of up to 300 people. The WWTP project approval will be obtained from the Hatay Provincial Directorate of Environment, Urbanization, and Climate Change, and the WWTP Identity Certificate will be procured. On the other hand, industrial wastewater generated from maintenance, repair, and vehicle washing units will be collected in a septic tank after undergoing oil separation and/or filtration. No discharge to the surface water is planned. It must be taken into account that if the reuse of treated wastewater for purposes such as dust suppression or irrigation is considered, it requires obtaining a Technical Compliance Report verifying that the treated water meets reuse quality standards (provided that it complies with the limit values specified in the Water Pollution Control Regulation and the Communiqué on Technical Procedures for Wastewater Treatment Plants (Annex-7, Table 7.1, Category B) and/or meets the criteria outlined in the WWTP Identity Certificate), securing reuse permission from the Provincial Directorate of Environment, Urbanization and Climate Change, and registering the activity in the Wastewater Information System (Integrated Environmental Information System). Regular water quality monitoring and reporting are mandatory, and the reused water must meet quality criteria based on its intended use.	▪ Wastewater disposal and recovery records ▪ Surface water quality measurements (in the event of discharge to the receiving water body) ▪ Correspondence with relevant authorities/institutions ▪ Training records ▪ Grievance records ▪ Environmental permit and WWTP identity certificate ▪ Periodic measurements of treated wastewater, intended for reuse in dust suppression and land irrigation in accordance with the project standards	▪ Construction Camp Site	▪ On-site observations/inspections ▪ Documentation review	Daily (on-site visual observations) Monthly (document review) Periodically (treated wastewater analysis)	▪ Regulation on Pit Opening Where Sewer System Construction is not Applicable ▪ Surface Water Quality Regulation ▪ Water Pollution Control Regulation ▪ Regulation on Waste Management ▪ Communiqué on Technical Procedures for Wastewater Treatment Plants ▪ ESS3: Resource Efficiency and Pollution Prevention and Management ▪ WBG EHS Guidelines ▪ Contractor's Pollution Prevention Procedure ▪ Contractor's Water Resource Management Procedure	▪ Compliance with treated wastewater standards ▪ Existence of a wastewater collection system – use of impermeable septic tanks and/or a package WWTP ▪ Rate of timely acquisition of institutional permits and approvals ▪ Number of water quality-related grievances ▪ Quantity of domestic and industrial wastewater generated, volume sent to the wastewater treatment plant (WWTP), and reuse of treated wastewater ▪ No exceedance of water quality limit values ▪ Number and percentage of the personnel trained on water and wastewater management	Contractor EHS Team

			▪ Under no circumstances shall any kind of untreated wastewater or waste be discharged into receiving bodies (soil and surface waters), drain fields, dry wells, or separate storm drainage and interception channels. ▪ The positioning of stockpiles near to water bodies and in the flood risk areas will be avoided. ▪ When determining the locations of temporary fuel or oil storage areas, the location of surface water resources will be taken into account. Accidental spills of hazardous materials such as fuel oil, oil, cement etc. will be taken under control immediately. ▪ To collect and reduce the flow of surface runoff originated from project components of impermeable surfaces; drainage systems and related strategies will be planned and implemented. ▪ Washing of vehicles/or machinery will not be permitted in surface waters. ▪ All waste generated from the construction camp site activities will be managed in accordance with relevant management plans. This includes temporary or periodic storage of excavation materials, as well as proper handling of fuels, oils, cement, and other potentially hazardous substances to prevent accidental release into the environment. Any spills or leaks of hazardous materials into irrigation channels or seasonal/perennial streams intersecting the project route will be immediately contained to prevent surface water contamination. ▪ In the event of a grievance, water quality monitoring will be conducted at the baseline measurement point7, following the parameters listed in Annex-5, Table 2 of the Surface Water Quality Regulation (Quality Criteria of Inland Surface Water Resources by Class – General Chemical and Physicochemical Parameters). ▪ The Contractor's Pollution Prevention Procedure and Water Resource Management Procedure will be implemented by providing necessary training for the project personnel.							
Groundwater	Construction and Operation	▪ Impacts on groundwater resources due to accidental spill/leakage and improper management of hazardous materials, waste and wastewater	▪ The locations of temporary fuel and oil storage areas will be determined with consideration of nearby water sources, and any spills or leaks of hazardous materials (e.g., fuel, oil, cement) will be immediately contained and managed. ▪ The Contractor's Pollution Prevention Procedure, Water Resource Management Procedure and Emergency Preparedness and Response Procedure will be implemented to ensure proper management of hazardous chemical substances. ▪ Chemicals will be stored on impermeable surfaces and within enclosed, well-ventilated areas to prevent leaks and soil contamination. In cases where chemicals are used or temporarily stored in open areas, secondary	▪ Spill incident reports ▪ Groundwater exploration and utilization permit ▪ Groundwater usage records ▪ Groundwater quality measurements (parameters specified in the Annex-3 of Regulation on Water Intended for Human Consumption) ▪ Groundwater quality measurements (parameters to be	▪ Construction Camp Site	▪ On-site observations/inspections ▪ Documentation review	Weekly Quarterly (groundwater analysis for human consumption/domestic use) In case of leakage/spill	▪ Regulation on Water Intended for Human Consumption ▪ Regulation on the Protection of Groundwater Against Pollution and Degradation ▪ ESS3: Resource Efficiency and Pollution Prevention and Management	▪ Number of spill incidents ▪ Amount of groundwater use ▪ No exceedance of limit values for human consumption (in the event of groundwater usage by	Contractor EHS Team

[7] The water quality will be monitored quarterly at one point: 36.931249°, 36.044419°

			containment structures, drip trays, and spill response kits will be provided and used to control and contain potential spills or leakages. ▪ All chemical storage tanks, including those for diesel fuel and dangerous liquid waste, will be stored in secondary containment structures with a capacity of up to 110% of the volume of material stored, in compliance with construction site requirements. ▪ If drinking water is supplied from groundwater wells and used for human consumption and/or domestic use, the contractor will perform quarterly groundwater analysis. The water tank inside the camp site will be covered with a canopy-like covering to protect it from sun, rain, dust and other effects. Additionally, in case of leakage/spill, the contractor will perform the necessary sampling and analysis. Besides, groundwater exploration and utilization permits will be obtained from the relevant authorities, depending on the intended use of the groundwater.	determined based on the type of leak/spill)				▪ WHO Drinking Water Guidelines ▪ WBG EHS Guidelines ▪ Contractor's Pollution Prevention Procedure ▪ Contractor's Water Resource Management Procedure ▪ Contractor's Emergency Preparedness and Response Procedure	project personnel) ▪ Compliance with the groundwater quality standards ▪ Number of groundwater quality related grievances	

4.5 Resource and Waste Management

4.5.1 Management Assessments

Waste Management

The hazardous and non-hazardous wastes expected to be generated from activities at the Construction Camp Site are summarized in Table 4-11.

Table 4-11. List of Hazardous and Non-Hazardous Waste

Waste Code	Waste Name	Relevant Waste Generation Phase
08 03 17*	Waste toner cartridges containing hazardous substances	Operation
10 13 14	Waste concrete and concrete slurry	Operation
13 02 08*	Other engine, transmission, and lubricating oils	Construction and Operation
15 01 01	Paper and cardboard packaging	Construction and Operation
15 01 02	Plastic packaging	Construction and Operation
15 01 03	Wooden packaging	Construction and Operation
15 01 04	Metal packaging	Construction and Operation
15 01 06	Mixed packaging	Construction and Operation
15 01 07	Glass packaging	Construction and Operation
15 01 10*	Packaging containing residues of hazardous substances or contaminated with hazardous substances	Construction and Operation
15 01 11*	Metallic containers containing hazardous porous solids (e.g., asbestos), including empty pressurized containers	Construction and Operation
15 02 02*	Absorbents, filter materials (oil filters if not otherwise specified), cleaning cloths, protective clothing contaminated with hazardous substances	Construction and Operation
16 05 06*	Laboratory chemicals, including mixtures of hazardous substances or laboratory chemicals containing hazardous substances	Operation
16 06 01*	Lead-acid batteries and accumulators	Construction and Operation
17 02 02	Glass	Construction and Operation
17 04 05	Iron and steel	Construction and Operation
17 05 03*	Soil and rocks containing hazardous substances	Construction and Operation
18 01 03*	Waste requiring special handling for collection and disposal to prevent infection	Operation

Waste Code	Waste Name	Relevant Waste Generation Phase
19 02 05*	Sludges containing hazardous substances resulting from physical and chemical processes	Operation
20 01 21*	Fluorescent lamps and other waste containing mercury	Operation
20 01 26*	Liquid and solid oils other than 20 01 25	Operation
20 03 01	Mixed municipal waste	Construction and Operation
17 03 01*	Bituminous mixtures containing coal tar	Construction and Operation
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01	Construction and Operation
17 09 04	Mixed construction and demolition wastes other than those containing hazardous substances	Construction and Operation
20 01 35*	Discarded electrical and electronic equipment containing hazardous components	Construction and Operation
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 35	Construction and Operation
20 01 08	Biodegradable kitchen and canteen waste	Construction and Operation
20 01 99	Other municipal waste not otherwise specified	Construction and Operation
19 08 05	Sludges from treatment of urban wastewater	Operation
16 01 07*	Oil filters	Construction and Operation
20 01 13*	Solvents	Operation

**Hazardous waste*

According to TÜİK 2022 data, the daily per capita waste generation in Hatay Province is 1.34 kg. At the construction site, which will employ a maximum of 300 personnel, daily waste generation is expected to be approximately 402 kg. According to the National Action Plan for Waste Management, 35% of the generated waste should be recycled and 65% landfilled by 2023 (Ministry of Environment, Urbanization and Climate Change, 2021). Accordingly, the amount of non-recyclable waste is estimated to be approximately 262 kg. Waste generated within the boundaries of Erzin is disposed of at the Solid Waste Landfill Site under the responsibility of the Körfez Solid Waste Association, located in the Düğünyurdu area.

Moreover, recyclable wastes will be collected separately at the source under the Zero Waste Management System and sent to licensed recycling/recovery companies, while hazardous wastes will be transported to licensed disposal facilities using authorized vehicles. All waste records and transactions will be maintained through the Integrated Environmental Information System (Waste Management Application).

Resource Management

The supply of aggregate for the concrete batching plant is planned to be sourced from quarries operated by third parties that hold all required environmental permits and EIA approvals. In the event that the contractor decides to operate its own quarry, a supplementary ESMP will be prepared, incorporating the necessary environmental and social assessments.

Moreover, monthly usage statistics will be collected to monitor fluctuations in resource consumption (energy, water and fuel), and any deviations will be analyzed and recorded in the Resource Usage Monitoring Chart.

4.5.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

Potential impacts and risks, along with corresponding mitigation measures and monitoring plans related to resource and waste management, are presented in Table 4-12.

Table 4-12. Resource and Waste Management – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Resource Management	Construction and Operation	▪ The use of raw materials and energy resulting from camp site activities	▪ If raw materials are sourced from third party-operated quarries or borrow sites, it will be ensured that these sites possess all relevant environmental permits and EIA approvals in compliance with national legislation. ▪ Energy-efficient tools and equipment will be prioritized, and vehicle idling will be prohibited. ▪ Energy and fuel consumption will be managed systematically to minimize unnecessary usage. ▪ In accordance with the waste mitigation hierarchy and resource efficiency strategy, reuse, recycling, and recovery measures will be implemented to reduce material consumption. ▪ Monthly usage statistics will be collected to monitor fluctuations in resource usage, and any deviations will be analyzed and recorded in the Resource Usage Monitoring Chart.	▪ Resource Usage Monitoring Chart ▪ Documentation of consumption, reuse, and disposal activities	▪ Construction Camp Site	▪ Documentation review	Monthly	▪ EIA Regulation ▪ ESS1: Assessment and Management of Environmental and Social Risks and Impacts ▪ WBG EHS Guidelines ▪ Contractor's Construction Materials Management Plan ▪ Contractor's Supply Chain Management Procedure ▪ Contractor's Pollution Prevention Procedure ▪ Contractor's Waste Management Procedure	▪ Reduction rate in resource and energy use by analyzing Resource Usage Monitoring Chart	Contractor EHS Team
Waste Management	Construction and Operation	▪ Potential impacts of hazardous and non-hazardous solid waste due to inadequate waste management, leading to environmental pollution and health and safety risks for both workers and the community	▪ Waste will be sorted into hazardous/non-hazardous and recyclable/non-recyclable categories, with designated storage areas for each. ▪ Packaging waste (plastic, metal, glass, paper, cardboard, composites, etc.) will be collected separately and sent to licensed Packaging Waste Collection, Segregation, and Recovery Facilities authorized by MoEUCC. ▪ Municipal solid waste will be segregated, with recyclable materials collected separately and organic waste managed by local municipalities under waste collection agreements. ▪ Vegetable waste oils will be stored separately and collected by licensed recovery or interim storage facilities. ▪ Waste batteries and accumulators will be delivered to authorized disposal facilities within municipal borders. ▪ End-of-life tires will be transported via authorized carriers and delivered to licensed collection points in line with the Regulation on Control of End-of-Life Tires. ▪ Medical waste will be stored in designated containers in the infirmary and sent to licensed Medical Waste Disposal Facilities, in compliance with the "Medical Waste Control Regulation." ▪ No waste will be disposed of in natural environments or burned on-site. ▪ Temporary Waste Storage Areas will adhere to national and international standards, ensuring: ▪ Provide adequate and appropriate storage areas for waste ▪ Ensure that container types, labeling, classification, and other storage requirements comply with project standards	▪ Conditions of temporary waste storage areas ▪ Waste management procedures (including collection, storage, recycling, and disposal) ▪ Records of waste generation and disposal ▪ Waste notifications submitted to the Integrated Environmental Information System/Waste Management Application (Waste Declaration System) ▪ Training programs related to waste management ▪ Contracts or protocols for	▪ Construction Camp Site	▪ On-site observations/inspections ▪ Documentation review	Daily (on-site visual observations) Monthly (document review)	▪ Regulation on Waste Management ▪ Regulation on Control of Packaging Wastes ▪ Regulation on the Control of Medical Wastes ▪ Regulation on the Management of Waste Oils ▪ Regulation on the Control of Vegetable Waste Oils ▪ Regulation on the Control of Waste Batteries and Accumulators ▪ Regulation on the Control of End-of-Life Tires ▪ Regulation on the Control of Waste Electrical and Electronic Equipment ▪ Regulation on Mining Wastes	▪ Proportion of reused, recycled, or recovered waste relative to total waste generated ▪ Waste segregated based on hazardous classification and type ▪ All waste types transferred to appropriate recycling or disposal facilities ▪ Timely and comprehensive waste reporting compliance rate ▪ Number of incidents involving soil contamination due to improper waste management	Contractor EHS Team

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
			▪ Use reinforced concrete or other impermeable materials, such as epoxy, for the floors of storage areas to prevent potential soil and groundwater contamination ▪ Enclose the top and four sides of the storage area to prevent precipitation from entering ▪ Ensure adequate ventilation in storage areas where volatile wastes are stored ▪ Implement effective drainage systems to collect and manage any potential leaks ▪ Restrict physical access to waste storage areas by using gates and fences, allowing entry only to authorized personnel ▪ Place cautionary signage and boards with the name and contact information of authorized personnel at the storage areas ▪ Keep absorbents, firefighting equipment, and other emergency response materials readily available near storage areas for immediate action in the event of spills or fires ▪ Regular inspections to identify and address any spills or leaks, especially in hazardous waste areas. ▪ An Industrial Waste Management Plan, valid for a period of three years, will be prepared. Additionally, a Hazardous Substances and Hazardous Waste Compulsory Financial Liability Insurance must be obtained for each Temporary Waste Storage Area and renewed annually. ▪ If the amount of hazardous waste temporarily stored in the Waste Storage Area exceeds 1,000 kg in a month, a waste storage permit must be obtained from the relevant Provincial Directorate of Environment, Urbanization, and Climate Change. ▪ Waste oils will be transported exclusively by licensed carriers and sent to authorized recycling or disposal facilities. ▪ A dedicated settling pond will be established on-site for concrete slurry generated by the concrete batching plant. The accumulated sludge will be managed and disposed of in accordance with applicable environmental regulations and waste management procedures. ▪ Sludge generated from the on-site packaged wastewater treatment plant will be collected, managed, and disposed of in accordance with applicable environmental regulations and waste management procedures. ▪ Construction waste will be collected by licensed collectors and transported to municipal excavation waste storage sites. ▪ Measures will be implemented to prevent contamination of land. ▪ Waste records will be maintained using the MoEUCC's Integrated Environmental Information System/Waste Management Application (Waste Declaration System). ▪ Hazardous waste will be segregated at the source to avoid cross-contamination, stored temporarily in appropriate containment areas, and disposed of at licensed facilities. Waste deliveries will be tracked using the MoTAT (Mobile Waste Tracking System) to ensure proper disposal, recovery, or recycling.	waste transportation ▪ Incident and accident records				▪ Regulation on the Control of Excavation Soil, Construction and Demolition Wastes ▪ Regulation on the Control of Soil Pollution and Lands Polluted by Point Sources ▪ ESS3: Resource Efficiency and Pollution Prevention and Management ▪ WBG EHS Guidelines ▪ Contractor's Pollution Prevention Procedure ▪ Contractor's Waste Management Procedure ▪ Contractor's Emergency Preparedness and Response Procedure	▪ Total number and percentage of personnel trained in waste management practices	

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
			▪ Waste disposal agreements will be made with municipalities and licensed recovery/disposal firms for the management of hazardous and non-hazardous wastes. ▪ The Contractor's ESMP, Waste Management Procedure, and Pollution Prevention Procedure will be implemented. ▪ All personnel will receive regular training on waste management practices, zero waste principles, and resource efficiency to ensure continuous improvement in waste management practices.							

4.6 Community Health and Safety

Community health and safety issues have been assessed specifically for the closest settlement to the camp and its immediate area of influence. The Contractor's commitments regarding community health and safety are detailed in the C-ESMP and Community Health, Safety, and Security Management Procedure.

4.6.1 Baseline Conditions

The closest settlement to the construction camp area is Yanıkdeğirmen settlement which belongs to Yukarıburnaz neighborhood, located approximately 320 meters away in a straight line. The Camp/Mobilization Area is situated approximately 4 kilometers from Turunçlu village and about 3 kilometers from Yukarıburnaz village. Due to this distance, the frequency of social interaction between the camp area and these villages is expected to be relatively low. On the other hand, the approximate population of Yanıkdeğirmen, which is located within a 500-meter radius of the camp area, has been determined to be around 75 people (see Table 4-22).

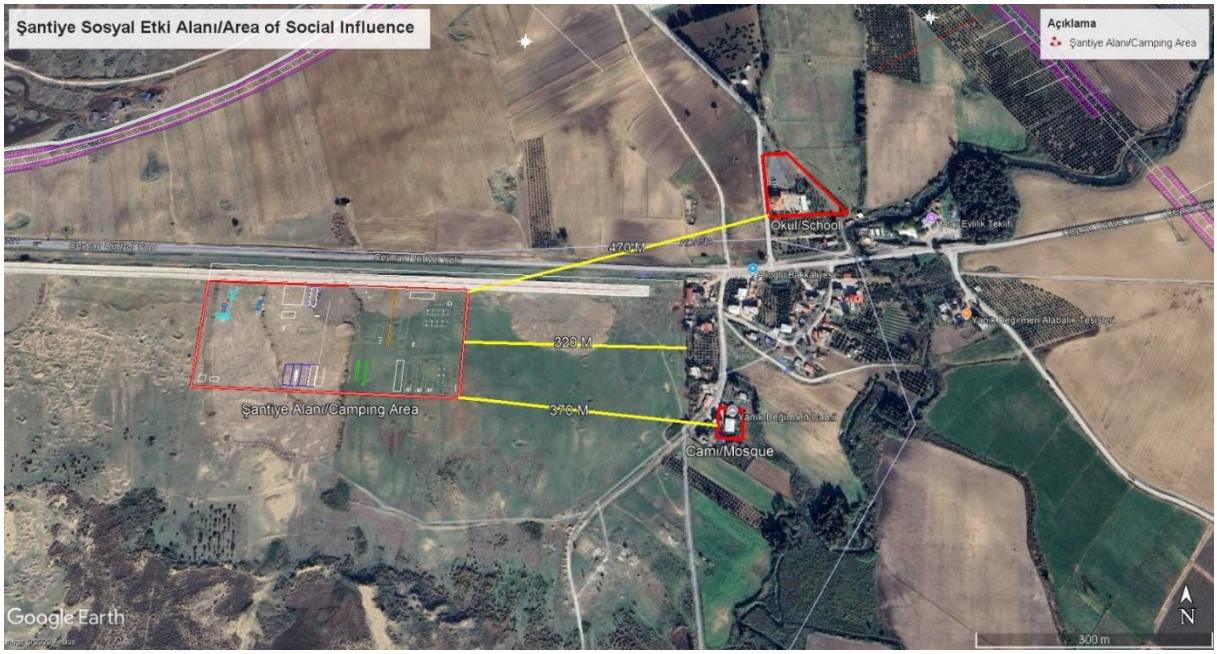


Figure 4-1 Critical Impact Area for Community Health and Safety

As seen in the above figure, Turunçlu Burnaz Primary & Secondary School, which operates under a centralized (transported) education system, is located near the Camp/Mobilization Area, at an approximate straight-line distance of 470 meters. The school serves around 230 students from the settlements of Yukarıburnaz, Aşağıburnaz, and Erzin. After the construction site location was determined, social and OHS specialists conducted two visits to provide information about the project. It is planned to provide regular training for students and employees. During the establishment and operation of the Camp/Mobilization Area, it is critically important to ensure that student transportation routes remain open and safe. To protect the safety of students, teachers, drivers and other school staff these roads should not be blocked; if necessary, alternative and secure routes should be planned and implemented.

It is anticipated that approximately 300 workers will be accommodated within the camp area throughout the duration of the Project. Although the majority of the workforce is expected to be recruited from the Project-affected settlements, it is also possible that a portion of the labour force will originate from outside the region. The temporary and male-dominated workforce may

disrupt the social and economic balance of nearby communities, especially affecting women's participation in public life and raising safety concerns. There is a risk of gender-based violence (GBVH), sexual exploitation and abuse (SEA), and sexual harassment (SH), which could increase social tensions and illegal activities. A dedicated grievance mechanism channel will be available for sensitive complaints, and all workers will be required to sign a Code of Conduct promoting respectful behavior.

In line with national regulations, workers will receive annual health check-ups, and a medical clinic staffed with a doctor and healthcare personnel will be established for non-emergency needs. In emergency situations, a medical transport vehicle will be kept on site 7/24 to ensure timely transfer of personnel to hospitals under medical supervision since having an ambulance is not mandatory in accordance with the Occupational Safety Regulations Accordingly, the Contractor will add this to the contract made with the Joint Health and Safety Unit (OSGB). Regarding health-related interactions with the local community, it is expected that workers will only visit public hospitals in Erzin, Ceyhan, or Osmaniye for specialist appointments not available in the on-site clinic. Further mitigation measures related to workforce management, accommodation standards, CoC, interaction with local communities recruitment, and labour influx are presented in the *Labor Management Plan prepared within the C-ESMP*. The present ESMP refers to that document for specific procedures, responsibilities and monitoring requirements.

The school entrance/exit gate is located on the village's internal access roads. Therefore, construction vehicles or machinery accessing the Camp/Mobilization Area are not expected to pass directly in front of the school. However, the main access road to the Camp/Mobilization Area (Ceyhan–Dörtyol Road) will be shared with the school transportation vehicles, which makes traffic coordination and safety measures essential.

The most significant issues that need to be addressed in terms of community health and safety include:

- The increased risk of spread of infectious diseases,
- Increased population density and mobility, as well as construction activities leading to a higher traffic load,
- And security concerns stemming from the temporary workforce presence.

The SEA/SH-related risks identified and associated mitigation measures are outlined in Table 4.28. Detailed provisions for addressing these issues are provided in the ***'SEA/SH Action Plan and the Accountability and Response Framework',*** which is currently under preparation by the PIU as of January 2026.

4.6.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

Potential impacts and risks, along with corresponding mitigation measures and monitoring plans related to community health and safety management, are presented in Table 4-13.

Table 4-13. Community Health and Safety – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Traffic Management (Including School Zone)	• Construction and Operation	▪ Increased traffic from construction vehicles poses risks to community specifically vulnerable persons crossing the road and residents in general. ▪ The risk of traffic accidents for schoolchildren while crossing the road ▪ Higher risk of accidents and congestion on local roads.	▪ Project's Traffic Management Plan and Procedure with clear signage, speed limits, and designated routes for heavy vehicles will be implemented. ▪ Vehicle movements outside school start/end times will be scheduled as much as possible ▪ Trained crossing guards will be placed and/or pedestrian safety infrastructure near the school will be installed. ▪ Cooperation will be made with relevant public institutions to provide pedestrian crossings and traffic lights for the crossing road. Roads used by construction vehicles will be regularly maintained. ▪ Drivers will be trained ▪ Schoolchildren will be trained on the mitigation measures taken by the project and other traffic safety rules by the project experts (Safe crossing practices, using pedestrian crossings and traffic signals, awareness of approaching vehicles) (EHS, CLO) ▪ Communities in the near vicinity will be informed about the construction schedule, activities, and safety measures via appropriate means such as meetings, leaflets, notices, and signs. ▪ Periodic medical checks for drivers/operators will be conducted. ▪ Periodic vehicle maintenance will be conducted. ▪ Only drivers/operators with valid licenses specific to each construction phase vehicle will be allowed to operate vehicles. ▪ The project grievance mechanism will be implemented	▪ Presence and number of warning signs correctly installed at designated locations ▪ Feedback and information collected through community consultation ▪ Training activities ▪ Grievance records	▪ Construction camp site and near vicinity	Document review and site visits	Whenever necessary	▪ ESS 4: Community Health and Safety ▪ WBG EHS Guidelines ▪ SEP including GM ▪ Contractor's Traffic Management Plan ▪ Contractor's Emergency Preparedness and Response Procedure	▪ Number of emergency situations recorded ▪ Number and types of community notification systems established and maintained ▪ Number of effective communication channels with emergency services and relevant governmental authorities established and maintained	Contractor EHS Team and CLO
Emergency Preparedness and Response	▪ Construction and Operation	▪ Risks to community members arising from natural disasters, negligence, or human error	▪ Contractor's Emergency Preparedness and Response Procedure will be followed and applied. ▪ Equipment operators and vehicle drivers will be trained in hazard recognition, emergency intervention, and maneuvering limitations. ▪ Local communities will be notified on possible emergency cases using appropriate communication tools	▪ Emergency situation ▪ Corrective and preventive actions taken ▪ Notification/Informative documents ▪ Grievance records	▪ Construction camp site and near vicinity	Document review and site visits	Whenever necessary	▪ ESS 4: Community Health and Safety ▪ WBG EHS Guidelines ▪ SEP including GM ▪ Contractor's Emergency Preparedness and Response Procedure	▪ Number of emergency situations recorded ▪ Number and types of community notification systems established and maintained ▪ Number of effective communication channels with emergency services and	Contractor EHS Team and CLO

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
									relevant governmental authorities established and maintained	
Security Personnel	• Construction and Operation	▪ Community safety risks arising from poor communication and lack of relations with community members	▪ It will be ensured that the security personnel to be employed have been screened to confirm they have not been involved in past abuses. ▪ Legal inquiries will be conducted during the hiring process of security personnel (or the company from which security services are procured) to verify competency and check for any prior abuse incidents. ▪ In accordance with ESS4, security personnel will be properly trained (or it will be verified that they are properly trained) in the use of force and in appropriate conduct toward workers and affected communities, with the requirement to act within applicable law and any established requirements. ▪ Training on the code of conduct, gender sensitivities, and local cultural sensitivities will be provided to security personnel, or it will be ensured that the company providing security services offers similar training to their personnel. These trainings will ensure that force is used only for preventive and defensive purposes and in proportion to the threat. ▪ Necessary identification, communication devices, and any other required equipment will be provided to security personnel to ensure maximum efficiency. ▪ Firearms will not be permitted to be carried by security personnel. In case of emergencies, assistance will be requested from the responsible Gendarmerie unit of the area. ▪ Any grievances from local communities regarding inappropriate conduct by security forces will be immediately investigated. ▪ The appropriate conduct of security personnel will be ensured through reviews of documentation, incident reports, and grievances received. ▪ All necessary measures will be included in the contractual agreements	▪ Grievance records ▪ Training activities	▪ Construction camp site	▪ Document review and site visits	Whenever necessary	▪ ESS 4: Community Health and Safety ▪ WBG EHS Guidelines ▪ SEP including GM • Contractor's Community Health, Safety and Security Management Procedure	▪ Number of instances of inappropriate behavior by security personnel ▪ Number of grievance reports • Number of training records for security personnel	CLO
Community Health	• Construction and Operation	▪ Increased risk of disease exposure to the community	▪ To prevent the spread of diseases among the workforce, air conditioning and ventilation systems will be installed, taking into account the local climate conditions, minimum space requirements, and relevant standards for worker housing. ▪ All staff will be trained on health, hygiene, and proper cleaning practices.	▪ Grievance records ▪ Training records • Records on communicable disease	• Construction camp site and near vicinity	▪ On-site observations/inspections • Documentation review	Weekly	▪ ESS 4: Community Health and Safety ▪ WBG EHS Guidelines ▪ SEP including GM • Contractor's Community	▪ Number of grievances received ▪ Number of personnel trained on health-related issues	Contractor EHS Team and CLO

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
			▪ Periodic medical check-ups for staff will be conducted, with vaccinations and other mitigation measures provided as needed. ▪ Health awareness activities will be carried out in collaboration with local communities. ▪ Clean water and sanitation facilities in the camp site to prevent the spread of disease will be provided. ▪ In the event of an epidemic or pandemic/infectious disease such as COVID-19, the Ministry of Health, the Ministry of Family and Social Services, and the Ministry of Labor and Social Security will prepare guidance and directives prepared by the World Health Organization. ▪ Dust, noise, and emissions from construction activities near residential areas will be monitored ▪ The Contractor's Waste Management Procedure, Pollution Prevention Procedure and Community Health, Safety and Security Management Procedure will be implemented					Health, Safety and Security Management Procedure	• Number of reported cases of diseases	

4.7 Biodiversity

The biodiversity baseline specific to the construction camp site and concrete batching plant has been documented and submitted as a standalone report in Appendix-2 Construction Camp Site Biodiversity Assessment Report.

Biodiversity research for the construction site and concrete plant, which form the basis of the study, was conducted in two ways: 1- Office work (basic preparation), 2- Fieldwork.

Office work consisted of research using geographic information systems, literature reviews, and analysis-reporting.

Fieldwork was conducted on June 2, 2025, as a "Rapid Site Assessment".

As a result of field and literature studies, 49 plant taxa, 4 frog species, 25 reptile species, 97 bird species, and 27 mammal species were identified in the study area.

Among the identified groups, a total of 6 "Priority Species" were identified: 2 plants, 2 reptiles, and 2 birds.

Table 4-14. Priority Plant Taxon

Serial No	Scientific Name	Turkish Name	Endemism	IUCN (Global)	IUCN (National)	BERN	Unlisted
1	*Echinops dumanii*	Kum Dikeni	Endemic	NE	CR	Unlisted	Unlisted
2	*Astragalus antiochianus*	Antakya Geveni	Rare	NE	CR	Unlisted	Unlisted

Table 4-15. Priority Wildlife and Fauna Species

Serial No	Scientific Name	Turkish Name	Endemism	IUCN	BERN	CITES	MAKK
1	*Acanthodactylus schreiberi*	Kumsal Kertenkelesi	Not Endemic	EN	Ek-III	Unlisted	Unlisted
2	*Testudo graeca*	Tosbağa	Not Endemic	VU	Ek-II	Ek-II	Unlisted
3	*Aythya ferina*	Elmabaş Patka	Not Endemic	VU	Ek-III	Unlisted	Ek-2
4	*Falco vespertinus*	Ala Doğan	Not Endemic	VU	Ek-II	Ek-II	Unlisted

The identified priority species are being monitored under the ESIA BMP framework, and no additional monitoring studies are required for these species at this stage.

Turkey is among the countries that are rapidly affected by the negative impacts of invasive alien species due to its rich biological diversity and its location on land, air, and sea transit routes. Among the 49 plant taxa identified in the field studies, 1 invasive plant taxon was identified.

Table 4-16. Identified Invasive Alien Plant Taxa

Serial No	Scientific name	Turkish name	Endemism	IUCN (Global)	IUCN (National)	BERN	CITES
1	*Conyza bonariensis*	Çakalotu	Not Endemic	NE	NE	Unlisted	Unlisted

No invasive species were found among the frogs, reptiles, and birds identified as a result of the field studies. However, one invasive species was identified among mammals (see Table 20).

Table 4-17. Identified Invasive Alien Fauna Species

Serial No	Scientific name	Turkish name	Endemism	IUCN	BERN	CITES	MAKK
1	*Rattus rattus*	Sıçan	Not Endemic	LC	Unlisted	Unlisted	Unlisted

The environmental impacts arising during activities at the construction site and concrete plant will have different effects on ecosystems, habitats, and species. These impacts can be listed as follows:

- Habitat loss
- Habitat fragmentation,
- Vegetation loss,
- Physiological and behavioral changes caused by disturbances such as noise, dust, and vibration,
- Injury or death of wildlife,
- Reduction in ecosystem services.

The measures to be taken within the scope of the project, both generally and specifically for living groups, are detailed below.

General Measures

- The boundaries of the construction camp site will be determined using precise GPS measuring devices, and identifying markers (concrete polygon stones, information signs, etc.) will be placed at these points. Under no circumstances will anyone be allowed to leave this area.
- Existing roads will be used to access the construction camp site, and no roads will be opened except in essential cases (access roads). Vehicles will not be driven in natural habitats outside the designated roads.
- A temporary waste storage area will be established for waste generated during the works (domestic waste and solid waste, domestic wastewater, packaging waste, waste batteries, medical waste, end-of-life tires, hazardous waste, etc.), and this waste will be stored separately in the temporary waste storage area and disposed of in accordance with the relevant legislation.
- Nature training will be provided to all technical and non-technical personnel in order to prevent behaviors such as deliberate killing, destruction, damage, etc.
- The engines of construction machinery, vehicles, or machinery and equipment that are not in use or are on standby in the construction camp site will be turned off.
- Dust, noise, and exhaust emission measurements will be carried out at specific intervals as required by relevant legislation.
- After the completion of project activities, construction site and concrete plant equipment will be removed, and rehabilitation followed by bioremediation work will be carried out for damaged areas.
- Interference with water resources, which are very important for aquatic life, will be kept to a minimum, and water resources will not be polluted.
- There will be no interference with nearby riverbeds and wetlands.

- No solid waste or wastewater will be discharged into wetlands or any water sources connected to the wetland system (streams, springs, wells, fountains, etc.).

Measures to be Taken for Flora Species

- To prevent dust formation, stabilized roads will be watered using a water truck, while concrete aggregate materials will be unloaded and stored using high-pressure, fan-equipped misting machines and equipment.
- In-situ or ex-situ protection measures will be taken for priority species. As an in-situ conservation measure, no intervention will be made in the locations where priority species are found within their area of influence, no activity will be carried out, and they will not be destroyed. As an ex-situ conservation measure, the seeds of priority species that have entered the seed stage will be collected directly from the plant, and the collected seeds will be cleaned and sorted in a herbarium environment. A portion of the unspoiled and viable seeds will be donated to the Seed Gene Bank. The remaining seeds will be stored by a botanist under appropriate conditions and will be sown within the area during the bioremediation phase.
- Invasive plants will be identified, and an eradication program will be developed and implemented.

Measures to be Taken for Wild Animals and Fauna Species

- Wild animals are mobile species and do not live in fixed locations, so visual checks will be carried out at specific intervals by a biodiversity expert during the installation work in the construction camp site.
- If fauna species with limited mobility and slow movement are encountered during visual checks, they will be translocated (moved).
- If a nest is detected during visual inspections, it will be checked with endoscopic cameras, and if a live specimen is observed, it will be allowed to leave on its own. Individuals that do not leave on their own will be removed from the area using other methods such as natural deterrents (food, pheromones, etc.) or loud noises. Adult individuals that do not leave the area despite the specified removal techniques will be captured using species-specific methods (capture and trap techniques, etc.) in a way that does not harm them, and their translocation (relocation) to suitable habitats will be ensured.
- The translocation (relocation) of species and the habitat where they will be released afterwards are very important. For example, releasing an aquatic species into a terrestrial area may reduce its chances of survival. Therefore, particular attention will be paid to this issue. In this context, the habitat of the area where the species to be relocated are found and the area to which they will be relocated will be analyzed.
- After the removal and translocation (relocation) of wild animals from the area, the area boundaries will be enclosed with a wire mesh fence.
- Taking into account wild animals that can dig, the wire mesh fence will definitely be buried underground and secured. In addition, a mesh fence will be installed on approximately 50 cm of the wire fence.
- No food (leftovers, etc.) or household waste that could attract wild animals to the area and its surroundings will be left behind. This is because some wild animals have very

sensitive senses of smell, and food or household waste left around could be attractive and draw wild animals to the area. This situation may trigger human-wildlife conflict.

- Boxes, cartons, and other packaging waste will not be left randomly in the area and its immediate surroundings. Such packaging waste may cause entanglement, entrapment, etc., in wild animals, affecting their daily activities (feeding, movement, etc.).
- Warning traffic signs and markers will be placed along the transportation route where wildlife may be encountered. In addition, speed limits will be observed and caution will be exercised.
- Bright lights can attract insects to the area, especially at night. Consequently, bats that feed on insects will naturally prefer the area. To prevent this, sensor-activated lighting will be used instead of active lighting in the evenings and at night.
- If an injured wild animal is encountered during the project, the authorities of the 7th Regional Directorate of the Ministry of Agriculture and Forestry of the Republic of Türkiye must be informed, and the area will be closed and no intervention will be made until the relevant authorities arrive.
- Stray cats, dogs, etc., and domestic animals will not be fed in the construction camp site.

4.8 Cultural Heritage

Assessments concerning the cultural heritage assets within the Project's area of influence were undertaken in full compliance with the World Bank Environmental and Social Standards (ESS), with particular emphasis on ESS8 (Cultural Heritage). Furthermore, all activities were carried out in accordance with the principles of the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972), as well as the national legal obligations set forth under the Republic of Türkiye's Law No. 2863 on the Protection of Cultural and Natural Assets. Within this framework, the Cultural Heritage Management Plan (CHMP) prepared by the Contractor and the Chance Find Procedure (CFP) developed under the Main Project were fully operationalized and systematically applied throughout the assessment, field investigations, and decision-making processes.

Field activities were carried out in strict adherence to these instruments to ensure the identification, safeguarding, and proper management of potential cultural heritage risks, including those associated with the construction camp area. Two cultural heritage locations with potential direct or indirect exposure to project activities (namely the site referred to as *Adsız Harabeler* and the locality known as *Yanıkdeğirmen*) were identified. Detailed descriptions, baseline assessments, and recommended protection and mitigation measures for these areas, as well as for the construction camp site, are provided in the following sections.

4.8.1 Baseline Conditions

Within the scope of the project, cultural heritage observations were conducted at the designated construction site—where all necessary permits had been duly obtained—prior to the commencement of ground preparation works, between 29 May 2025 and 30 May 2025. In addition, an official inquiry regarding the registered cultural heritage information of the Construction Camp Site and the presence or absence of any archaeological site within the project area prior to the commencement of works was submitted to the Hatay Regional Directorate for the Conservation of Cultural Heritage on 9 July 2025 (letter no. OZ-JV.GDN.DIS.25/010) (see Appendix-1.5.1). In response, the Directorate, in its letter dated 18 July 2025 and numbered E-85020971-169.99-7027468, stated that although the broader region is designated as a 1st Degree Archaeological Site, there are no cultural assets within the boundaries of the proposed Construction Camp Site, and therefore, no issues exist in relation to the planned works (see Appendix-1.5.2). The Directorate further emphasized that, in the event any cultural remains are encountered during the course of construction, the nearest museum directorate or local authority must be promptly notified. The relevant correspondence is provided in Appendix-1.5. The field studies at the Construction Camp Site were conducted by Specialist Archaeologist. The activities undertaken and the findings obtained are summarized below.:

a) The locations of the registered cultural heritage assets in the vicinity of the construction site were reviewed through Google Earth.
b) A field survey was conducted, covering the construction site and its interaction zone within an approximate radius of 2–2.5 km.
c) Since the construction area had previously been filled with infill material by another organization before site handover, no natural soil surface is present. Consequently, no cultural heritage assets were identified during the surface survey.
d) Two registered cultural heritage assets were identified in the vicinity of the construction site. The so-called "Adsız Ruins" are located approximately 830 meters to the west of the site, while the "Yanıkdeğirmen" archaeological area lies about 1,165 meters to the southeast.

The locations of these cultural heritage assets, along with the construction site, are indicated in Figure 4-2.



Figure 4-2. Cultural Heritage Assets Within and Surrounding the Construction Camp Site

Field surveys were conducted within the construction site to determine whether any cultural heritage assets exist beyond the two specified areas (see Figure 4-3).



Figure 4-3. Camping Area Survey

During the field survey, particular attention was given to the area referred to as the “Adsız Harabeler (Ruins)” (see Figure 4-4). No cultural heritage assets were identified during the field inspections conducted. Previous construction activities in the area had resulted in deposits

being left at certain points within the site. These deposit areas and their surroundings were also surveyed, and no cultural heritage assets were encountered.

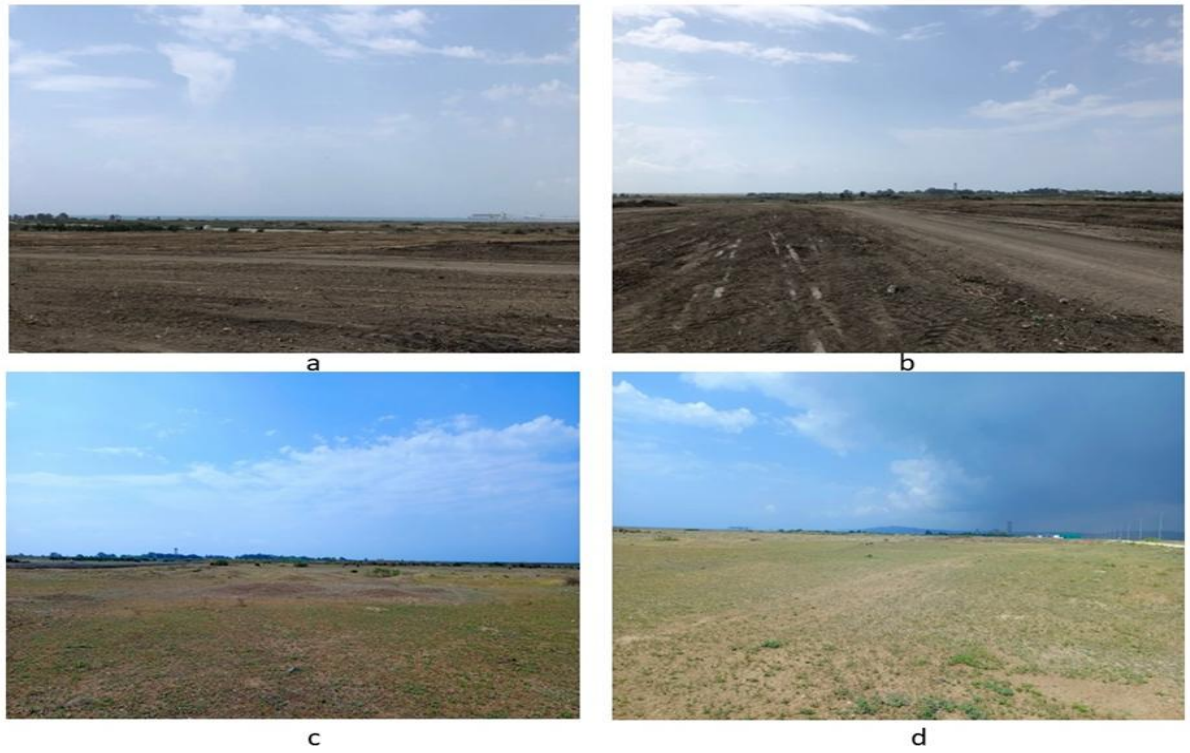


Figure 4-4. Construction Camp Site Area – Pre-Construction Phase (a, b, c, d)

In conclusion, since no cultural heritage assets or chance finds were identified within the construction site, establishing a camp in this area does not pose any concerns from a cultural heritage or archaeological perspective. Nevertheless, the camp/mobilization area will be fenced to prevent access beyond the designated boundaries. In addition, awareness training on cultural heritage and archaeology will be provided to project personnel to ensure the protection of cultural assets in the area. Relevant stakeholders to be contacted in case of any incidents are listed in Table 4-18.

Table 4-18. Organizations Concerned with Cultural Heritage and Their Contact Details

Province	Board	Address	Phone	E-mail
Ankara	General Directorate of Cultural Heritage and Museums, Ministry of Culture and Tourism	II.TBMM Binası Yanı 06110 Ulus/Ankara	+90 312 470 64 64 +90 312 470 64 65	kulturvarlikmuze@ktb.gov.tr
Adana	Adana Provincial Directorate of Culture and Tourism	Döşeme Mahallesi Mehmet Nuri Sabuncu Bulvarı No:59 Kat:6-7-8-9-10 Seyhan/Adana	+90 322 280 1700	iktm01@ktb.gov.tr
Hatay	Hatay Provincial Directorate of Culture and Tourism	Cumhuriyet Mahallesi Şehit Mustafa Sevgi Cad. No:4 Antakya / HATAY	+90 326 280 20 00	iktm31@ktb.gov.tr
Adana	Adana Cultural Heritage Preservation Regional Board	Tepebağ Mah. 27044 No:5 01010 SEYHAN / ADANA	+90 322 352 67 42 +90 322 359 57 52	adanakurul@ktb.gov.tr
Hatay	Hatay Cultural Heritage Preservation Regional Board	Maşuklu Mah. Antakya-Reyhanlı Cad. Hatay Arkeoloji Müzesi No:133/3 Antakya / Hatay	+90 326 225 00 32	hataykurul@ktb.gov.tr
Adana	Adana Archaeology Museum	Ahmet Cevdet Yağ Bulvarı Döşeme Mahallesi No:7	+90 322 454 38 55 +90 322 454 38 57	adanamuzesi@kulturturizm.gov.tr
Hatay	Hatay Archaeology Museum	Maşuklu Mah.Atatürk Cad. Antakya/Hatay	+90 326 225 10 60 +90 326 255 10 66	hataymuzesi@ktb.gov.tr
Adana	Adana Provincial Gendarmerie Command	Yavuzlar Mahallesi, Kışla cd., 01220 Yüreğir/ADANA	+90 322 323 32 73	-
Adana	Ceyhan District Gendarmerie Command	Küçük Kırım mah. İnönü Bulvarı no:5 Ceyhan/ADANA	+90 322 613 11 08	-
Hatay	Hatay Provincial Gendarmerie Command	Güzelbirlik Mah. E-5 Karayolu Cad.No.59 (31175) Antakya Hatay	+90 326 221 02 94 +90 326 221 02 95 +90 326 221 02 96	-
Hatay	Erzin District Gendarmerie Command	Hürriyet Mah. Uğur Mumcu Cad. Nu.18 (31960) Erzin Hatay	+90 326 681 48 49	-
Hatay	Department of Archaeology, Hatay Mustafa Kemal University	Hatay Mustafa Kemal Üniversitesi Fen Edebiyat Fakültesi Arkeoloji Bölümü A-BLOK, Zemin Kat Tayfur Sökmen Kampüsü (31060) Antakya / Hatay	+90 326 221 33 17 +90 326 221 33 18 +90 326 221 33 19	-
Adana	Department of Archaeology, Çukurova University	Çukurova Üniversitesi, Fen-Edebiyat Fakültesi Arkeoloji Bölümü 01330, Adana/Türkiye	+90 322 338 60 84	arkeoloji@cu.edu.tr

4.8.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

The potential impacts and risks, along with the corresponding mitigation measures and monitoring plan, related to cultural heritage are presented in Table 4-19.

Table 4-19. Cultural Heritage – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Responsible Party
Archaeological site	▪ Construction and Operation	▪ Physical damage to archaeological sites	▪ In order to avoid any damage to archaeological sites during construction activities, an inventory will be prepared identifying all registered cultural heritage assets and sites with ongoing archaeological excavations located along the project corridor. This list will serve as a basis for implementing protective measures in coordination with the relevant cultural heritage authorities. ▪ Within the construction camp area, all necessary consultation processes with the relevant units of the Ministry of Culture and Tourism and the Provincial Preservation Boards have been completed to ensure the safety of cultural and natural heritage assets present on the construction site. Official letters, as well as all required approvals and permits, have been obtained. These consultations will ensure that all necessary protective measures are identified and implemented in accordance with national and local heritage preservation regulations	▪ Conducting archaeological surveys ▪ Defining "no-trespassing" areas ▪ Providing training on cultural heritage and chance finds procedures ▪ Fencing and boundary demarcation	▪ Construction Camp Site	▪ Monitoring will be carried out on-site both before and during the construction activities	Whenever necessary	▪ Law No. 2863 on the Protection of Cultural and Natural Assets ▪ UNESCO World Heritage Convention ▪ European Cultural Heritage Conservation Standards ▪ World Bank Environmental and Social Standards (World Bank ESS8) ▪ Relevant provincial and municipal decisions ▪ Best International Practice Examples	▪ Project Manager ▪ Deputy Project Manager ▪ Contractor's Archaeological Specialist ▪ Construction Team Supervisors Construction site engineers
Chance finds	▪ Construction and Operation	▪ Physical damage to chance finds	▪ To prevent physical damage to chance finds during construction, all personnel were informed that the Archaeologist must be notified immediately if any finds are discovered. Regular monitoring was conducted throughout the works. On-site personnel were trained on the chance finds procedure, including the protection of any discovered items and the requirement to promptly report them to the Archaeologist	▪ Conducting archaeological surveys ▪ Providing training on cultural heritage and chance finds procedures ▪ Fencing and boundary demarcation	▪ Construction Camp Site	▪ Monitoring will be carried out on-site both before and during the construction activities	Whenever necessary	▪ Law No. 2863 on the Protection of Cultural and Natural Assets ▪ UNESCO World Heritage Convention ▪ European Cultural Heritage Conservation Standards ▪ World Bank Environmental and Social Standards (World Bank ESS8) ▪ Relevant provincial and municipal decisions ▪ Best International Practice Examples	▪ Project Manager ▪ Deputy Project Manager ▪ Contractor's Archaeological Specialist ▪ Construction Team Supervisors ▪ Construction site engineers
Cultural heritage awareness training	▪ Construction and Operation	▪ Physical damages that may occur as a result of the lack of awareness of the cultural heritage asset.	▪ All on-site personnel, including construction workers and engineers, received cultural heritage awareness training. The training covered procedures for chance finds, proper handling of archaeological materials, and reporting protocols. This measure helped prevent inadvertent damage to cultural heritage sites and ensured that all	▪ Ensuring that the personnel working in the area are informed about the	▪ Construction Camp Site	▪ Monitoring will be carried out during construction activities	Whenever necessary	▪ Law No. 2863 on the Protection of Cultural and Natural Assets	Contractor's Archaeological Specialist

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Responsible Party
			personnel carried out their tasks in a responsible and informed manner. ▪ Within this framework, the Cultural Heritage Management Plan (CHMP) prepared by the Contractor and the Chance Find Procedure (CFP) developed under the Main Project will fully be implemented and systematically applied throughout the assessment, field investigations, and decision-making processes.	cultural significance and heritage potential of the region.		when necessary. ▪ Training regarding accidental finds will be provided at the camp areas or construction sites.		▪ UNESCO World Heritage Convention ▪ European Cultural Heritage Conservation Standards ▪ World Bank Environmental and Social Standards (World Bank ESS8) ▪ Relevant provincial and municipal decisions ▪ Best International Practice Examples	

4.9 Occupational Health and Safety and Accommodation Management

4.9.1 Site Mobilization, Buildings and Facilities

The buildings and facilities to be located within the construction camp site are shown in Table 4-20.

Table 4-20. Buildings and Facilities

Buildings and Facilities	Details
Administration Buildings	▪ Project Management Building: Project Management - Technical Office - OHS - Quality Control - Map Survey - Infrastructure - Mechanical - Electrical - IT - Meeting Rooms - Server Room - Archive - Photocopy - WC - Tea Rooms, Cleaning Rooms - Administrative Affairs - Procurement - Warehouse - Accounting - Personnel Unit- Vehicle Parking Lot - Vehicle Parking Lot for Guests - Construction Site Entrance
Dining Hall and Kitchen	▪ Dining Hall: Worker, Technical Staff, Subcontractor, Camp ▪ Tea Shops and Cleaning Rooms
Camp Buildings	▪ Showers ▪ Dormitory ▪ Dining hall ▪ Laundry ▪ Technical Center ▪ Garbage Area ▪ Car park ▪ Secondary Electrical Panels ▪ Generator ▪ Smoking areas ▪ Lighting Towers ▪ Garbage Container ▪ Technical Buildings ▪ Transformer – Board ▪ IT Room ▪ Well - Water tank ▪ Warehouse ▪ Weighbridge

4.9.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

The necessary measures shall be implemented to ensure the effective execution of the following plans and procedures across all construction sites and camp areas:

- Occupational Health and Safety Plan
- Emergency Preparedness and Response Plan
- Accident, Incident, and Near-Miss Management Procedure
- Labor Management Plan
- Employment and Training Procedure

During the construction phase of the Project, as indicated in Table 4-20 above, the construction camp will include facilities such as dormitories, a dining hall, rest areas, showers, toilets, and a laundry for approximately 300 workers. The potential impacts and risks, along with the corresponding mitigation measures and monitoring plan, related to OHS are presented in Table 4-21, while social risks related to workers and local communities and mitigation measures are presented in Table 4-28. All accommodation and living facilities within the workers' camp will be fully compliant with the IFC and EBRD *Guide to Workers' Accommodation: Processes and Standards*.

Table 4-21. Occupational Health and Safety and Accommodation Management – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential OHS Related Impacts and Risks	Mitigation Measures	Monitoring Location	Monitoring Frequency	Relevant Plans/Procedures	Responsible Party/Departments
Land Preparation and Construction of the Camp Site	Land Preparation and Construction	▪ Occupational accidents and injuries ▪ Ergonomic and manual handling hazards ▪ Electrical hazards ▪ Fire and explosion risks ▪ Exposure to dust, noise, and vibration ▪ Chemical and hazardous material exposure ▪ Traffic and vehicle-related accidents ▪ Psychosocial risks and fatigue ▪ Emergency and evacuation challenges	▪ A comprehensive risk assessment and hazard mapping shall be conducted prior to site works. ▪ Guardrails, toe-boards, edge protection, and clearly marked pedestrian and vehicle routes shall be installed. ▪ Excavations and trenches shall be shored or benched to prevent collapses. ▪ Permit-to-work systems for high-risk activities shall be enforced. ▪ Appropriate PPE, including helmets, gloves, safety boots, and reflective vests, shall be provided. ▪ Toolbox talks before commencement of hazardous operations shall be carried out. ▪ Daily housekeeping to remove debris and trip hazards shall be maintained. ▪ Guardrails, handrails, edge protection, and safe access to elevated platforms shall be installed. ▪ Certified fall-arrest systems shall be provided where necessary. ▪ Workers shall be trained in working-at-height procedures and rescue protocols. ▪ Makeshift ladders or unsafe access shall be prohibited. ▪ Harnesses, anchor points, and ladders shall be inspected weekly. ▪ Vehicle operators with valid licenses shall be assigned. ▪ Routine vehicle inspections and maintenance shall be conducted. ▪ Spotters for reversing or critical vehicle operations shall be used. ▪ Speed limits and safe parking areas shall be enforced. ▪ Qualified electricians shall be engaged for all installations. ▪ Residual current devices (RCDs) and lockable panels shall be installed. ▪ Proper grounding of all wiring systems shall be ensured. ▪ Electrical installations shall be inspected monthly. ▪ Unauthorized electrical devices and personal heaters shall be prohibited. ▪ A fire safety plan including extinguishers, hoses, hydrants, and emergency exits shall be developed. ▪ Hot work permits for welding, cutting, and other ignition sources shall be implemented. ▪ Smoking areas shall be designated away from flammable materials, and no-smoking policies shall be enforced elsewhere. ▪ Fire drills and employee awareness training shall be conducted. ▪ Firefighting equipment shall be maintained weekly and defective devices shall be replaced immediately. ▪ Noisy equipment shall be located away from accommodation and sensitive areas. ▪ Hearing protection shall be provided in designated high-noise zones. ▪ Dust suppression measures, including water sprays and material covering, shall be applied. ▪ High-noise activities shall be scheduled to minimize worker exposure. ▪ Noise and dust levels shall be monitored regularly and PPE issuance logs shall be maintained. ▪ Hazardous chemicals shall be stored in secure, bunded, and ventilated areas. ▪ Safety Data Sheets (SDS) for all chemicals on site shall be maintained. ▪ PPE such as gloves, goggles, aprons, and respirators shall be provided when handling chemicals. ▪ Workers shall be trained on safe handling and correct usage of detergents, solvents, and fuels. ▪ Spill kits shall be maintained and spill response drills shall be conducted. ▪ Hazardous waste shall be disposed of through licensed contractors. ▪ Lifting aids and mechanical handling equipment for heavy materials shall be provided.	▪ Construction Camp Site	▪ Continuous inspection	▪ Contractor's ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers

			▪ Personnel shall be trained in proper lifting techniques and manual handling procedures. ▪ Dormitories, offices, and workstations shall be designed to allow adequate space, lighting, and air circulation. ▪ Fatigue levels shall be monitored, and rest breaks shall be enforced. ▪ Daily inspections and weekly audits for compliance with OHS measures shall be conducted. ▪ Incident, near-miss, and corrective action logs shall be maintained. ▪ Subcontractor compliance with HSE obligations shall be ensured. ▪ HSE performance shall be reviewed monthly, and corrective measures shall be taken where necessary. ▪ Incidents and KPIs shall be reported to project management and relevant authorities. ▪ Other risks and impacts arising from land preparation and construction of the camp site will be managed in accordance with the national legislation and good international industry practices				
Dormitories -In accordance with the IFC and EBRD - Guide to Workers' Accommodation: Processes and Standards	Construction and Operation	▪ Overcrowding and poor living conditions ▪ Inadequate ventilation and indoor air quality ▪ Fire hazards ▪ Trip, fall, and electrical hazards ▪ Spread of infectious diseases and pests ▪ Inadequate emergency preparedness ▪ Thermal discomfort	▪ The subcontractors shall not charge any payment from the employees staying in dormitories. ▪ The rooms shall be planned for a capacity of 4 people at maximum, taking into account the privacy of the personnel. ▪ The planning for dormitory rooms shall be made for an air volume of 10-12.5 m³ per person. ▪ The dormitory rooms shall feature adequate number of windows for ventilation. ▪ The dormitory flooring should be covered with easy-to-clean materials. ▪ The distance between the beds should be 1 meter at minimum. ▪ Lockable cabinets with adequate capacity should be made available to each employee for personal use. ▪ The height of the dormitory room's ceiling should not be lower than 2.4 meters. ▪ Routine room housekeeping service should be available. ▪ Smoking is prohibited in all indoor areas. In particular, the employees	▪ Construction Camp Site	▪ Continuous inspection	▪ Contractor's ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure ▪ Contractor's Labor Management Plan	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers

			▪ shall be briefed about the fire hazard during the onboarding training. ▪ Use of equipment such as electric heaters, electric kettles, stove, gas cylinders, etc. by the employees in the rooms is strictly prohibited. Employees shall be briefed about this prohibition during the onboarding trainings. ▪ Items such as mattress, quilt, duvet cover and pillows shall be used by only one employee. Used materials shall be removed from the project site within the scope of the waste management practices. ▪ Use of bunk beds are not recommended in dormitories to the most possible extent. In cases where use of bunk beds is mandatory, only use of double deck bunk beds shall be allowed. Use of triple deck bunk beds is prohibited. ▪ The dormitory shall feature power outlets at adequate quantity and capacity, and the employees shall not provide or use extension cords by their own means. In the event where additional power outlets are required, the camp supervisor shall be informed. ▪ Fire extinguisher hoses, fire extinguishers and smoke detectors shall be available in the hallways of the dormitories against possible fire hazards. All firefighting equipment shall be checked and recorded on weekly and monthly basis. Any nonconforming equipment shall be replaced with new ones. All employees shall be briefed during the onboarding training that the smoke detectors should not be disabled. ▪ The fire hydrants should be maintained ready and in working condition in order to be able to extinguish possible fires. ▪ Escape plans should be posted inside the building against probable emergencies. ▪ Items made of wooden materials should not be introduced into the rooms by the personnel against the danger of bed bugs. ▪ Insecticides should be applied to the rooms on regular basis against pests and insects. ▪ Mosquito screens should be provided on the windows. ▪ Adequate air-conditioning equipment should be available in the rooms for summer and winter seasons. ▪ Lockers should be available at the hallways for work shoes and dirty clothes. ▪ The corridor width should be such that it does not complicate escape and evacuation processes in case of any emergency. ▪ The wiring system in the building should be checked on monthly basis and should be grounded. ▪ Other risks and impacts at the dormitories will be managed in accordance with the national legislation and good international industry practices				
Toilets and Bathrooms -In accordance with the IFC and EBRD - Guide to Workers' Accommodation: Processes and Standards	Construction and Operation	▪ Hygiene-related health risks ▪ Slips, trips, and falls ▪ Lack of privacy ▪ Inadequate accessibility ▪ Chemical hazards ▪ Thermal or water-related discomfort	▪ An adequate number of showers and hot water shall be available at the dormitories for the employed personnel. ▪ Planning should be made to make available 1 WC, 1 washbasin, 1 urinal and 1 bathroom for 15 employees on average. ▪ The doors in the toilets and bathrooms should be lockable in terms of privacy. If there is no door in the bathrooms, shower curtain must be available. ▪ The toilets and bathrooms should be designed to be located in the building where the employees accommodate. The employee should not go out of the building for accessing the bathroom or the toilet. (The IFC and EBRD standards indicate that the showers and the toilets should be located 30-60 meters at maximum from the rooms where the employees reside.) ▪ The toilets and the bathrooms shall be covered with easily cleanable hygienic tile surface and anti-slip hard washable materials. ▪ The administrative affairs unit should appoint personnel for routine cleaning of the toilet and the bathroom during the day. ▪ Soap should be available in the toilets and should be replenished on regular basis. ▪ The chemicals used for cleaning should be used without mixing with each other. ▪ Other risks and impacts will be managed in accordance with the national legislation and good international industry practices	▪ Construction Camp Site	Continuous inspection	▪ Contractor's ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure ▪ Contractor's Labor Management Plan	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers

Leisure Areas and Worker Clubhouse	Construction and Operation	▪ Fire hazards from smoking ▪ Overcrowding and insufficient space ▪ Slip and fall hazards ▪ Hygiene and contamination risks ▪ Poor management of leisure areas	▪ The areas with porches where employees can spend their leisure time shall be constructed in the mobilization zone. Ashtrays shall be available in the leisure areas for disposing the cigarette butts. ▪ The clubhouses where the employees can watch television should be planned with an average space of 1 m²-1.5 m² per person. ▪ A tea shop shall be available in the clubhouse, and an employee responsible for cleaning and management of the tea shop shall be appointed by the administrative affairs unit. The cleaning activities shall be audited regularly by the administrative affairs unit and the occupational safety unit. ▪ The clubhouse flooring should be planned taking into account the density of the personnel entering and exiting the clubhouse and should be cleaned on regular basis. ▪ Other risks and impacts will be managed in accordance with the national legislation and good international industry practices	▪ Construction Camp Site	Continuous inspection	▪ Contractor's ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure ▪ Contractor's Labor Management Plan	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers
Laundry Rooms -In accordance with the IFC and EBRD - Guide to Workers' Accommodation: Processes and Standards	Construction and Operation	▪ Chemical exposure ▪ Slips, trips, and falls	▪ An adequate number of washing machines should be made available taking into account the number of personnel residing in the camp. ▪ Adequate number of personnel shall be appointed by the administrative affairs to be responsible solely with the laundry. ▪ The laundry personnel should be trained by the administrative staff unit in order to ensure use of detergent in proper quantities. ▪ The laundry personnel should use masks and gloves. ▪ Planning should be made so as to avoid interruption of the washing work by developing schedule for the companies on designated days of the week. ▪ Washed laundry should be handed over to the employees after drying in the drying areas of the required width in order to prevent the laundry to remain humid. ▪ Other risks and impacts will be managed in accordance with the national legislation and good international industry practices	▪ Construction Camp Site	Continuous inspection	▪ Contractor's ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure ▪ Contractor's Labor Management Plan	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers
Office Buildings	Construction and Operation	▪ Fire and electrical hazards ▪ Indoor air quality and ergonomic risks ▪ Waste management and hygiene issues	▪ Assignment of the personnel to the office buildings to be used by white-collar personnel should be performed by taking into consideration the air volume required. ▪ Fire extinguishers should be made available for probable emergencies, and escape plans should be posted inside the building. ▪ The wiring system in the building should be checked on monthly basis and should be grounded. ▪ Waste bins should be available in all offices, and recyclable waste bins should be located in the hallways. The personnel should be briefed during the onboarding training for accurate use of such waste bins. ▪ Smoking is prohibited in the offices. Designated smoking areas should be used. ▪ Other risks and impacts will be managed in accordance with the national legislation and good international industry practices	▪ Construction Camp Site	Continuous inspection	▪ Contractor's ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers
Concrete Batching Plant	Installation	▪ Working at heights (around silos and maintenance platforms) ▪ Absence of edge guardrails on silo tops ▪ Workers falling during the assembly or disassembly of cement silos ▪ Risk of tipping or collapse during silo assembly and disassembly ▪ Falling of materials from height during silo assembly and disassembly ▪ Absence of a rigger/signalman during silo lifting operations ▪ Failure to use guide ropes during lifting operations ▪ Failure to secure the surrounding area during lifting operations ▪ Use of inappropriate or uncertified cranes during lifting operations ▪ Failure to use safety harnesses during work at height	▪ Install durable edge guardrails or temporary barriers on all silo tops and elevated work areas before starting work. ▪ Use full-body safety harnesses connected to certified anchor points; provide fall arrest systems and proper access ladders. ▪ Use level ground, ensure proper foundation support, and follow manufacturer's assembly instructions. ▪ Secure tools and materials with lanyards; install overhead protection and restrict access below the work area. ▪ Assign a certified rigger/signalman to coordinate lifting operations and maintain communication with the crane operator. ▪ Use tag lines (guide ropes) to control swinging loads and stabilize the lifted item. ▪ Establish exclusion zones with warning tape and signs; restrict access to unauthorized personnel. ▪ Verify lifting equipment capacity, certification, and inspection records before use. ▪ Ensure all personnel working at height wear safety harnesses properly attached to lifelines or anchor points. ▪ Test and certify lifelines and anchor systems according to standards before use.	▪ Construction Camp Site	Continuous inspection	▪ Contractor's ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers

		▪ Insufficient load-bearing capacity of lifelines and anchor points ▪ Inadequate or unsafe working platforms in the installation area ▪ Temporary or uninsulated electrical connections made without authorization ▪ Failure to perform periodic inspections of tools and equipment used during installation ▪ Carrying out installation work without considering adverse weather conditions (wind, rain, etc.) ▪ Risk of crushing or entrapment during heavy lifting and handling operations ▪ Risk of tripping or falling due to poor or unstable material stacking ▪ Insufficient lighting in the installation area ▪ Failure to use personal protective equipment (helmet, gloves, goggles, etc.) ▪ Operation of cranes, forklifts, or similar equipment by unauthorized personnel ▪ Exposure to noise, dust, and vibration ▪ Fire and explosion risk during welding or cutting operations ▪ Blocked or unclear emergency evacuation routes	▪ Provide stable and properly constructed scaffolding or platforms with guardrails and toe boards. ▪ Use only authorized, insulated, and grounded electrical connections installed by qualified electricians. ▪ Ensure all lifting tools and power tools are inspected and tagged regularly by competent personnel. ▪ Stop lifting and working at height during strong winds, rain, or lightning conditions. ▪ Maintain safe distances, use proper hand signals, and never stand under suspended loads. ▪ Stack materials neatly and securely; keep walkways clear of obstacles and debris. ▪ Provide adequate lighting for night work or low-light conditions, ensuring all areas are visible. ▪ Enforce the mandatory use of PPE: helmet, gloves, goggles, reflective vest, and safety shoes. ▪ Allow only trained and licensed operators to use heavy machinery. ▪ Provide hearing protection, dust masks, and monitor exposure levels; implement dust suppression systems. ▪ Obtain hot work permits; ensure fire extinguishers are nearby and flammable materials are cleared. ▪ Keep emergency exits and escape routes clear and marked; conduct periodic evacuation drills. ▪ Other risks and impacts arising from installation activities of the concrete batching plant will be managed in accordance with the national legislation and good international industry practices				
Concrete Batching Plant	Operation	▪ Mechanical entrapment, crushing and shearing hazards (conveyors, crushers, mixers) ▪ Working at heights (around silos and maintenance platforms) ▪ Electrical hazards, arc flash and fire risk (panels, motors, generators) ▪ Dust exposure (cement dust — respiratory and eye irritation), silica hazard ▪ Noise exposure leading to potential hearing loss ▪ Chemical hazards (cement, additives, accelerators, fuels) ▪ Traffic hazards involving concrete mixer trucks and forklifts ▪ Confined space hazards in silos and hoppers (oxygen deficiency, toxic gases) ▪ Risk of flying particles from rotating or high-impact equipment ▪ Manual handling and repetitive strain injuries ▪ Operational errors during maintenance activities	**<u>Engineering Controls:</u>** ▪ Machine guards must be installed on all moving and hazardous components to prevent accidental contact. ▪ Emergency stop buttons (E-STOP) shall be placed at all critical access points and tested regularly to ensure immediate shutdown in case of emergency. ▪ Safety interlock systems and cover sensors shall be implemented to prevent operation when protective covers are removed. ▪ Noise reduction measures shall be enforced, including the use of hearing protection where required. ▪ Electrical safety shall be ensured through lockable panels and residual current protection devices. ▪ Safe access to silos must be provided through fixed ladders, handrails, and anti-slip platforms. ▪ Traffic within the site shall be managed through clearly marked routes and separation of pedestrian and vehicle movement. **<u>Administrative Controls:</u>** ▪ A Work Permit System shall be implemented before commencing high-risk activities. ▪ Mandatory safety training shall be provided to all personnel, with documentation maintained for verification. ▪ Daily inspections and pre-operation checklists must be conducted to identify and mitigate hazards. ▪ Supervisory inspections and reporting mechanisms shall be established to ensure compliance. ▪ Safety signage and hazard markings must be clearly visible throughout the site. ▪ Emergency preparedness and response planning shall be in place and regularly updated. ▪ Subcontractor compliance with safety requirements shall be actively managed. ▪ Risks and impacts arising from operation of the concrete batching plant will be managed in accordance with the national legislation and good international industry practices. **Personal Protective Equipment (PPE):**	▪ Construction Camp Site	Continuous inspection	▪ Contractor’s ESMP ▪ Occupational Health and Safety Plan ▪ Emergency Preparedness and Response Plan ▪ Accident, Incident, and Near Miss Management Procedure	▪ Project Manager ▪ Construction Team Supervisors ▪ Construction site engineers

			▪ Respiratory protection, such as FFP2/FFP3 masks, shall be provided where needed. ▪ Eye protection, including safety goggles or face shields, shall be used. ▪ Hearing protection shall be mandatory in high-noise areas. ▪ Protective gloves, suitable for mechanical and chemical hazards, shall be worn. ▪ Safety footwear and high-visibility vests must be used at all times on site. ▪ Fall arrest equipment shall be provided and used for work at height. **Traffic and Vehicle Safety:** ▪ Pedestrian and vehicle traffic routes shall be clearly separated. ▪ Speed limits and designated parking areas shall be enforced throughout the site. **Lockout/Tagout (LOTO) Procedure:** ▪ Preparation and communication must be completed prior to equipment shutdown. ▪ Equipment must be safely shut down and energy sources isolated. ▪ Personal locks and tags shall be applied to prevent accidental re-energization. ▪ Stored energy must be released and verified before maintenance work begins. ▪ Isolation shall be verified and tested prior to executing maintenance. ▪ Maintenance work shall only be carried out after proper isolation is confirmed. ▪ Upon completion, locks and tags shall be removed and controlled restart of equipment performed. **Inspection and Training:** ▪ LOTO training shall be conducted for all relevant personnel and refreshed annually. ▪ Inspection and audit reports shall be recorded, reviewed, and corrective actions implemented where necessary.				

4.10 Socio-Economic Conditions

In order to understand the general socio-economic profile of the settlements within the project's area of influence—and specifically, to assess the demographic structure, sources of livelihood, expectations, concerns, and questions of Project-Affected Parties (PAPs) in the settlement closest to the construction site—a rapid assessment survey was conducted in September, 2025 with 5 neighborhood headmen (mukhtars) of affected settlements, along with a structured village level appraisal questionnaire.

The project's area of influence encompasses the neighborhoods of Aşağıburnaz, Hürriyet, Turunçlu, and Yukarıburnaz in the Erzin district of Hatay Province, and the Sarımazı neighborhood in the Ceyhan district of Adana Province.

Given its status as the closest settlement to the construction site, Yanıkdeğirmen (, a hamlet of the Yukarıburnaz neighborhood) was selected as the primary location for field assessment. Yanıkdeğirmen. Interviews were conducted with 13 out of the 15 households currently residing in the area.

Findings obtained from the interviews are presented in the following sections. Also, the project's social specialists have held various meetings with the local community and Mukhtars since the camp location has been determined, as well as prior to conducting the survey. These meetings are documented as Appendix-4 of this ESMP.

Information collected through household questionnaires—considered primary data—was further supported and validated by inputs provided by the neighborhood headmen.

Within the scope of the survey study, both positive and negative socio-economic risks and impacts of the Project were focused on.

4.10.1 General Baseline Conditions of the Whole Project Area

Population: The 2024 population figures for the settlements affected by the project are presented in the table below. The Turkish Statistical Institute (TURKSTAT) does not provide gender-disaggregated data at the neighborhood level. However, based on the general population structure of Türkiye, it can be assumed that the male and female populations are approximately evenly distributed.

The total population of the groups expected to be most affected by the campsite is determined to be 1,215 including Turunçlu and Yukarıburnaz neighborhood.

Table 4-22. Population of Settlements within the Project Area (2024)

Name of the Neighborhood	Population as of 2024
Hatay/ Erzin	
Aşağıburnaz	271
Hürriyet	4611
Turunçlu	568
Yukarıburnaz	647
Adana/ Ceyhan	
Sarımazı	3452
Total	9.542

Source: Turkish Statistical Institution

The Table 4-23 presents population changes over the past ten years for the settlements affected by the project. With the exception of Aşağıburnaz neighborhood, a general trend of

population decline—albeit not dramatic—can be observed in the other settlements. The population of Aşağıburnaz has increased by 12%. Regarding the population trends of other neighborhoods, over the past ten years, the population has decreased by 4.7% in Hürriyet, 3.2% in Turunçlu, 8.3% in Sarımazı, and 1.7% in Yukarıburnaz. According to the Sarımazı neighborhood Mukhtar interviewed, the primary reason for this decline is a shortage of housing. Newly married individuals are reportedly forced to relocate due to a lack of available housing. Sarımazı's proximity to the Organized Industrial Zone (OIZ) has led to increased housing demand in the area; however, the supply remains insufficient. According to information obtained from the neighborhood Mukhtars, in other neighborhoods as well, due to the decline in income from agriculture and livestock and the inability to continue these activities as before, the young population prefers to settle in nearby cities and districts and employed as wage laborers.

It was also reported that 15 families in Sarımazı and 13 families in Turunçlu were affected by the earthquake and are currently awaiting resettlement into permanent TOKI housing. There are no families living in temporary container housing due to the earthquake.

Table 4-23. Population of Settlements within the Project Area (2015-2024)

Settlements	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Aşağıburnaz	242	252	242	280	265	259	256	273	276	271
Hürriyet	4840	4834	4616	4572	4609	4498	4617	4588	4592	4611
Turunçlu	587	576	576	562	557	539	559	543	572	568
Yukarıburnaz	653	650	628	569	620	626	636	622	638	642
Sarımazı	3763	3717	3646	3568	3553	3501	3472	3380	3457	3452

Source: Turkish Statistical Institution

Seasonal workers arrive in the region for several months to harvest products such as vegetables, olives, and citrus fruits. These workers include both Syrian nationals and Turkish workers from the eastern and southeastern regions of the country. Depending on the type of crop, they typically remain in the area between May and October or between October and January. Accommodation is provided either through renting houses or residing in worker dormitories. No social conflict or issues related to seasonal workers have been reported to date. Furthermore, no accommodation area for seasonal workers has been identified in the vicinity of the camp site.

Within the boundaries of Hürriyet neighborhood, there is a community of seasonal nomadic herders. This group stays in Erzin in winter and sets up tents during the summer months for livestock grazing.

Vulnerable Groups:

As part of the survey study, information was also collected regarding vulnerable groups. Based on data provided by the Social Assistance and Solidarity Foundation (SASF) at the settlement level, neighborhood headmen (mukhtars) have knowledge about families and individuals who receive in-kind or cash assistance from the state. It has been observed that in every settlement, there are families benefiting from these support programs. Individuals and families within this group are more concentrated in the Hürriyet neighborhood. In Sarımazı neighborhood, it has been reported that some single mothers expect to benefit from the employment opportunities provided by the project. In Turunçlu, there are 2 single women one of them has a sick child, she receives support from her family. In Yukarıburnaz, the number of vulnerable individuals is lower, with 3 people with disabilities, 2 widows, and 3 single mothers.

Table 4-24. Information on Vulnerable Groups in the Settlements

Location	Disabled	Single mother	Government Assistance Recipients	Elderly in Need of Care
Sarımazı	3 persons	14 widows 4 single mothers	45-50 families	-
Turunçlu	-	2 women (one of them has a sick child)	29 families	-
Yukarıburnaz	3 persons	2 widows and 3 single mothers		
Hürriyet	20 persons	4 widows	600 persons	20 persons in need of care with governmental monetary support
Aşağıburnaz	-	-	10 families	7 persons in need of care one of them benefit from governmental monetary support

Source: Household Survey, September, 2025

Economic activities

The primary livelihoods in the settlements affected by the project include farming, livestock breeding, transportation, and wage labor. Livestock farming has declined compared to previous years, partly due to the reduction of pasture lands caused by the Organized Industrial Zone (OIZ). The main agricultural products, in order of significance, are citrus fruits, olives, vegetables, sunflower, soy, corn, beekeeping, watermelon, and peppers.

Transportation, particularly trucking and freight services, is reported to play a significant role in household income, especially in the Aşağıburnaz and Yukarıburnaz neighborhoods.

Access to Infrastructure and Services

All neighborhoods have access to municipal network water supply. Except for Hürriyet neighborhood, there is no sewage system in the other neighborhoods. Even within Hürriyet, some streets lack proper sewage infrastructure. No significant road-related issues have been reported, with the exception of Yukarıburnaz neighborhood.

Internet and telephone infrastructure is available throughout all settlements; however, internet connections frequently weaken or experience interruptions. Power outages are common across the region. Transportation services are regularly provided through shared minibuses (dolmuş) and shuttle vehicles. Nomadic groups have no electricity.

All settlements have access to a health center. Depending on the population size, a doctor is either present once a week or available daily. The neighborhood with the largest population, Hürriyet, hosts primary, middle, and high schools. Students from other settlements attend schools in nearby neighborhoods, commuting by school transportation services.

4.10.2 Baseline Conditions of the Construction Site and Nearby Settlement

This section provides an overview of the baseline socio-economic conditions in and around the construction site. As mentioned earlier, Yanıkdeğirmen is the only settlement near the construction site that could be directly affected by the construction activities. Therefore, household surveys to assess the socio-economic situation and project impacts were conducted only in this settlement. As shown in the Figure 4-5 below, Yanıkdeğirmen is bordered by the Ceyhan–Erzin–Dörtyol road to the north, Burnaz Beach to the south, Aşağıburnaz neighborhood to the east, and Sarımazı and the Organized Industrial Zone (OIZ) to the west. The construction site will also be located to the west of the settlement (see Figure 1-1).

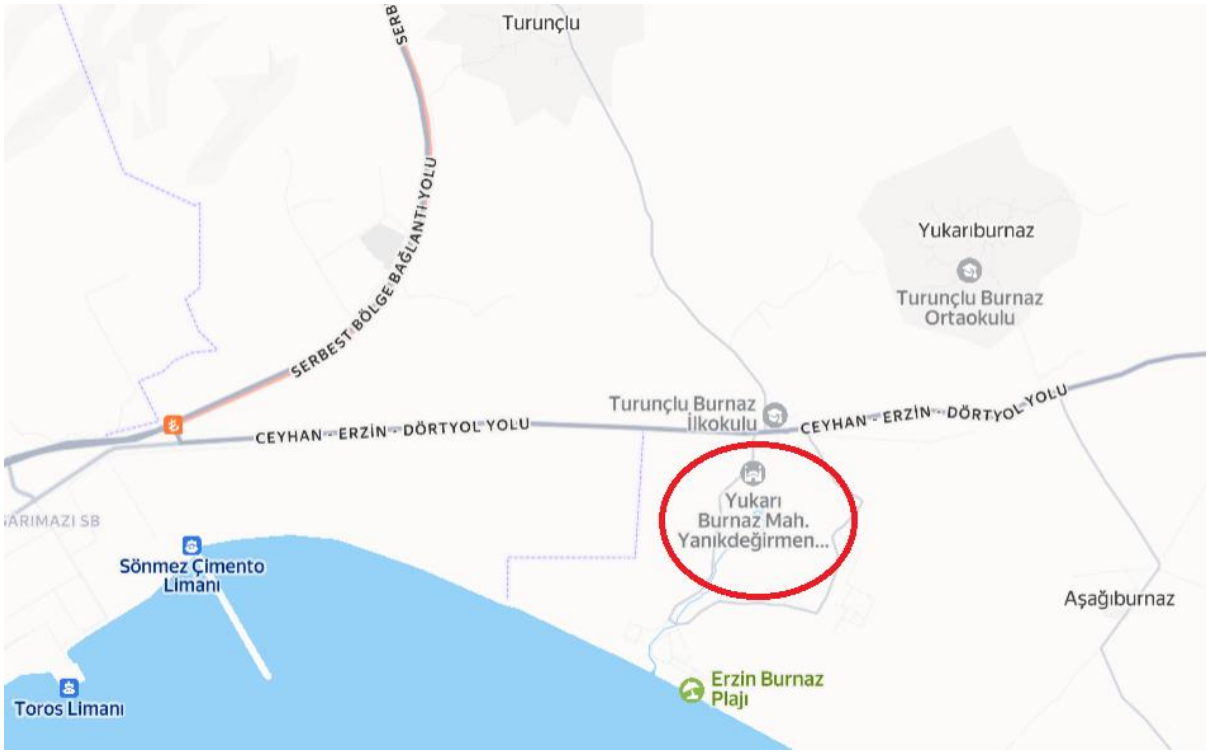


Figure 4-5. Map Showing the Most Affected Settlement by the Project

As previously mentioned, baseline information was collected through face-to-face household interviews in Yanıkdeğirmen, the settlement closest to the construction site. Yanıkdeğirmen is a hamlet of the Yukarıburnaz neighborhood and consists of 15 households. Interviews were conducted with 13 of these households in September 2025. Considering household sizes, basic socio-economic data were gathered for a total of 68 individuals. A total of 17 individuals were interviewed during the survey, comprising 10 men and 7 women. Some surveys were conducted with both men and women together, and the opinions of both were reflected in the findings. The findings obtained from the survey are presented in the following sections.

Population

The average household size in Yanıkdeğirmen is approximately 5 individuals. Based on the total of 15 households, the estimated population of the settlement is around 75 people. Age and gender distribution data for the surveyed households are presented in the tables below.

As shown in the table, females make up approximately 45% of the total population, while males account for 54%.

Table 4-25. Gender Distribution of Surveyed Household Members in Yanıkdeğirmen

Gender	Frequency	%
Female	31	45.6
Male	37	54.4
Total	**68**	**100**

One-third of the population consists of children aged between 0 and 18 years. The median age of the adult population is about 30. Individuals aged 65 and above represent 11.7% of the total population.

Table 4-26. Age Distribution of Surveyed Household Members in Yanıkdeğirmen

Age	Frequency	%
0-3	2	2.94
4-6	1	1.47
7-10	8	11.88
11-15	6	8.88
16-18	6	8.88
19-25	9	13.21
26-35	4	5.64
36-54	21	30.9
55-64	3	4.4
65 +	8	11.8
Total	**68**	**100**

Main Income Sources and Livelihood

This question allowed for multiple responses, and the answers indicate that most households have more than one source of income. Out of the respondents, 8 reported that they engage in agriculture on their own land, 3 stated that they do not own any land, and 2 indicated that they carry out agricultural activities on treasury land by paying occupancy fees (*ecrimisil*).

Table 4-27. Source of Income of the Project Affected Household

Source of Income	Frequency
Agriculture	5
Animal husbandry	3
Paid Worker	6
Pension	4
Temporary Worker	2
Other	2
Total	**22**

Among the households interviewed, 5 reported a monthly income of over 50,000 TL, 7 households stated their income ranged between 20,000 and 50,000 TL, and 1 household reported having a monthly income of 10,000 TL or less.

Some households reported experiencing significant crop losses due to frost during the winter season. In addition, due to drought, they were unable to obtain sufficient yields and therefore did not harvest their crops, which remained in the fields. Rising feed prices have also contributed to a noticeable decline in cattle farming in the area over the years, particularly affecting large-scale livestock production.

Vulnerable and Disadvantaged Groups

Among the 13 households representing 68 individuals, 2 children and 6 elderly with disabilities were identified. Only one of the elderly individuals was found to be in need of assistance. It was also determined that there are at least 20 school-age children between the ages of 6 and 18 living in the settlement. (Information could not be obtained from 2 households that were not interviewed.). Among the interviewed households, there were no women living alone. One widowed woman resides with her son and his family.

Education and Health Services

There is a local health center accessible to the residents of Yanıkdeğirmen, where a doctor is available once a week. The nearest hospital is Erzin State Hospital, which is 15 km away. The closest school to the settlement is Turunçlu Burnaz Primary School. Some of the children from the community attend boarding schools in Osmaniye.

Access to Infrastructure and Services

All of the interviewed households have access to the municipal water supply. For irrigation purposes, 7 households reported using water from wells. There is no sewage system in the settlement; instead, households dispose of their wastewater through septic tanks. Three households stated that they do not have access to the internet.

Transportation to the settlement is available via minibuses (*dolmuş*), private vehicles, and buses.

Concerns and Perceptions Expressed by Residents Regarding the Camp Site and Project's Impacts:

Interviews were conducted with local households to gather their views on the potential negative and positive impacts of the Project. The most frequently mentioned **negative impacts** were:

1. Loss of land and potential damage to crops, which was also described by respondents as a loss of livelihood;
2. Concerns that the influx of construction workers might disturb the local social environment, especially in relation to the comfort and daily life of women;
3. The closure of walking paths previously used by women for recreational purposes due to the establishment of the construction site;
4. Traffic congestion, as well as increased dust and noise levels.

On the other hand, several respondents identified **positive impacts**, such as:

- The potential for economic revitalization and increased employment opportunities in the area;
- A number of residents expressed hope that the Project would create job opportunities and that they or their family members might be employed within the Project.

4.10.3 Access to Services and Local Interaction of the Workers

This section addresses potential pressure on local services, risk of misunderstandings, and the importance of managing expectations through transparent communication.

As stated previously, the construction campsite is located in close proximity to the Yanıkdeğirmen settlement. A residential area will be established within the camp, where approximately 350 workers are expected to be accommodated, the majority of whom will be male. This situation may give rise to certain potential impacts.

Effective management of this project-affiliated workforce is essential to mitigate potential social risks—both for the workers themselves and for members of the surrounding community.

This also may create increased demand that exceeds local capacity, particularly in access to basic services such as shopping, transportation, and places of worship. Additionally, the potential number of workers planned to be accommodated in the camp may lead to a population increase — in other words, a labor influx — when compared to the population of the nearest settlements. This situation may lead to social challenges, including increased

pressure on local services, changes in community dynamics, and heightened risks to vulnerable groups, particularly women.

These risks will be managed through Contractor's Labor Management Plan and Employment and Training Procedure, in compliance with World Bank ESS2 standards.

To minimize social interaction with the local population, a prayer room (mescit) will be constructed within the Camp/Mobilization Area. It is anticipated that the only regular religious contact point with the community may be Friday prayers.

For shopping, the small grocery store (bakkal) located in Yanıkdeğirmen neighborhood is expected to be used by some workers. During the stakeholder engagement process, the store owner stated that the shop is open daily from 07:00 to 23:00 and offers packaged snacks, beverages, tobacco products, vegetables, and fresh baked goods (such as simit and poğaça). The owner clearly stated that no credit or tab system is allowed. During the visit, the project and the nature of the Camp/Mobilization Area were explained, and it was clearly communicated that the contractor and field teams are not responsible for any credit-related transactions.

4.10.4 Potential Social Impacts and Risks, Mitigation Measures and Monitoring Plan

Potential social impacts and risks are determined as shown in the list below.

- Labor and Working Conditions
- Vulnerable Groups
- Local Employment & Local Economy
- Labor Influx & GBV/SEA/SH Risk

The potential impacts and risks, along with the corresponding mitigation measures and monitoring plan, are presented in Table 4-28.

Table 4-28. Socio-Economic Conditions – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Labor and Working Conditions	Construction	▪ Risk of unfair or non-transparent recruitment and employment practices. ▪ Risk of poor worker accommodation conditions, including hygiene, safety, overcrowding, or lack of gender-sensitive facilities. ▪ Risk of health issues due to inadequate medical support, sanitation, or exposure to communicable diseases. ▪ Risk of limited access to Grievance Mechanism and freedom of association. ▪ Risk of unsafe working conditions and lack of protective equipment. ▪ Risk of non-compliance with labor standards during retrenchment. ▪ Risk of misinformation or lack of awareness regarding employment rights and responsibilities. ▪ Risk of occupational accidents and injuries in high-risk tasks. ▪ Risk of Child labor and forced labor ▪ Risk of GBV, SEA, and SH	▪ Contractor's Project Human Resource Management Plan (HRP) and Employment and Training Management Procedures and Labor Management Plan will be implemented	▪ Existence and accessibility of written employment contracts ▪ Provision and use of Personal Protective Equipment (PPE) ▪ Availability and functioning of Workers' Grievance Mechanism ▪ Frequency and quality of OHS (Occupational Health and Safety) trainings ▪ Conditions and hygiene of worker accommodation facilities ▪ Medical checks and availability of first aid equipment ▪ Trainings	▪ Construction Camp Site	▪ Site visits and documentation	▪ Daily visual checks by site supervisors ▪ Monthly internal reporting by Contractor	▪ Law Number 4857, 6331 ▪ ESS2: Labor and Working Conditions ▪ Project Labor Management Procedures ▪ Contractor's Labor Management Plan ▪ Construction E&S Monitoring and Training Procedure ▪ Contractor's Employment and Training Management Procedure ▪ Contractor's Human Resources Management Plan ▪ C-ESMP	▪ Number of signed employment contracts in compliance with LMP ▪ Number of workers provided with appropriate PPE and trained in its use ▪ Rate of resolution for labor-related grievances within the designated timeframe ▪ Number of OHS trainings conducted and documented for site workers ▪ Rate of compliance with accommodation standards based on inspection results ▪ Number of medical checks and health-related interventions conducted on site ▪ Number of worker grievances logged, addressed, and closed ▪ Rate of participation in Code of Conduct and workplace behavior trainings ▪ Number of incidents of non-compliance with labor policies	CLO of Contractor

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
									identified during monitoring ▪ Number of GBVH training participants.	
Vulnerable Groups	Construction & Operation	▪ Exclusion of vulnerable individuals from project-related employment and economic opportunities. ▪ Limited participation in stakeholder engagement due to unfavorable physical conditions ▪ Difficulty in accessing and using the Grievance Mechanism ▪ Risk of further marginalization if targeted support is not provided.	▪ Temporary or permanent employment opportunities especially cleaning, chauffeur, security, cookery etc. during the construction and operation period will be offered to vulnerable PAPs. ▪ Special attention will be given to communication with vulnerable individuals, and site visits will be conducted to ensure they are adequately informed about project activities in accordance with SEP	▪ Records of local employment and women employment ▪ Employment opportunities information provided to local settlements ▪ local procurement ▪ Mukhtar information ▪ Vulnerable groups inclusion records	▪ Residential areas directly or indirectly affected by the project	▪ Regular information / consultation with the AoI communities ▪ GM records	▪ Monthly	▪ ESS10: Stakeholder Engagement and Information Disclosure ▪ Stakeholder Engagement Plan ▪ Community Health, Safety and Security Management Procedure	▪ Number of local employment information to VG ▪ VG SEP activities records ▪ Number and amount of provided RP/LRP supports ▪ GM records from VGs	CLO
Local Employment & Local Economy	Construction	▪ Exclusion from job opportunities ▪ Short-term characteristics of employment ▪ Unequal access to benefits ▪ Discriminatory practices ▪ Negative local perception ▪ Unrealistic employment expectations among the local population and the resulting disappointment ▪ Labor complaints unresolved ▪ Missed economic benefits	▪ Job opportunities arising from the project will be announced to all local stakeholders in a clear, transparent and accessible manner, and inequality of opportunity will be prevented. ▪ Applicants will be notified that job opportunities may be short-term and/or temporary. ▪ All employees will equally benefit from their rights arising from national and international laws (including gender). The principles set forth in the Labor Management Plan will be followed. ▪ The inclusion of local suppliers and service providers in procurement processes will be prioritized whenever is possible.	▪ Records of local employment and women employment ▪ Employment opportunities information provided to local settlements ▪ Local procurement ▪ Mukhtar information ▪ Vulnerable persons inclusion	Construction Camp Site	▪ Grievances ▪ Regular consultation with the community in AoI ▪ Employment records	Monthly	▪ ESS10, ESS 2 ▪ SEP ▪ Project Environmental and Social Management Plan ▪ Community Relations Management Procedure ▪ Contractor's Labor Management Plan	▪ Local employment rate ▪ GM records on livelihood issues	Contractor EHS team and CLO
Labor Influx GBV/SEA/SH Risk for Neighborhood Communities	Construction	▪ Male-dominated workforce population may elevate the risk of GBV, harassment, and intimidation, especially for women and girls in nearby communities while accessing public spaces such as roads, markets, water points, schools, and health facilities located near the worker camp or along worker commuting routes. ▪ The temporary population surge can overload existing health, sanitation, housing, and transport infrastructure. ▪ Cultural differences and competition over limited resources may lead to tensions between workers and local residents.	▪ To the extent possible, local labor shall be prioritized to reduce labor influx and associated social risks. ▪ Workforce composition and turnover shall be monitored regularly. ▪ Worker code of conduct that explicitly prohibits harassment and GBV, with clear sanctions and grievance procedures. ▪ The CoC shall be explained to workers in a language they understand and reinforced through regular toolbox talks. ▪ Breaches of the CoC shall result in disciplinary measures, including dismissal and referral to relevant authorities where applicable.	▪ Grievance records from the community ▪ Percentage of workers attended the trainings	▪ Construction Camp Site	▪ Grievances ▪ Regular consultation with the community in AoI	▪ Whenever necessary	▪ ESS10, ESS 2 ▪ SEP ▪ Employment and Training procedure ▪ Community Relations Management Procedure ▪ Contractor's Labor Management Plan	▪ Grievance records ▪ Training records	Contractor EHS team and CLO

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
		▪ May increase the risk of communicable diseases, affecting both workers and the host community. ▪ Rise in petty crimes, unsafe behaviors, or illegal activities due to lack of proper supervision or community integration. ▪ Labor influx may lead to an increase in transactional sex, which can heighten risks of sexual exploitation, sexually transmitted infections (STIs), unintended pregnancies, and social stigma, especially among adolescent girls and economically vulnerable women. ▪ Shopping at local shop will stimulate daily cash flow and the local economy.	▪ Boundaries of the construction site with fences and warning signs will be defined. ▪ Adequate lighting, security patrols, and CCTV (where appropriate) shall be installed in and around camp facilities. ▪ Mandatory training for all incoming workers on GBV/SEA/SH, local culture, gender sensitivity, and community behavior expectations will be conducted. ▪ Training shall cover acceptable behaviour, local cultural norms, legal consequences, and survivor-centred principles. ▪ Refresher training shall be provided, with additional focus on workers operating near schools and other sensitive receptors. Community in AoI will be encouraged to use GM. ▪ A confidential, accessible, and survivor-focused GM shall be established for SEA/SH complaints. ▪ Multiple GM intake channels (hotline, focal points, anonymous reporting) shall be made available. ▪ SEA/SH cases shall be handled separately from general grievances, ensuring confidentiality and safety. ▪ GBV/SEA/SH mitigation measures shall be integrated into the Labor Management Plan monitoring framework. ▪ Regular audits and supervision of worker behaviour and camp conditions shall be conducted. ▪ Regular consultations will be conducted with women and men in nearby communities regarding their interactions with project workers, potential risks, and mitigation measures, and awareness-raising trainings will be provided. ▪ Regular health checks and services will be provided in the infirmary of the camp site. ▪ A prayer room (mescit) will be established within the camp area to limit the need for workers to interact with the local population for religious practices. ▪ Wearing inappropriate clothing within the camp will be prohibited, and this will be addressed during worker orientation and training sessions.							

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Labor Influx GBV/SEA/SH Risk for Primary School Children	Construction	▪ Increased risk of unwanted interactions between construction workers and students, particularly during school start and dismissal hours ▪ Risk of verbal harassment, inappropriate gestures, staring or following along school access routes used by students ▪ Risk of inappropriate contact or communication between project workers and minors ▪ Formation of informal gathering points around the construction area, potentially leading to perceived or actual safety concerns for students ▪ Risk of underreporting of SEA/SH incidents due to power imbalances, fear, or lack of child-appropriate reporting channels	▪ Physical barriers, fencing will be installed in construction areas located near the school. ▪ Clear rules shall be established restricting worker movement near schools, clinics, playgrounds, and residential areas, particularly during school start and end hours. ▪ All project workers and subcontractors will be required to comply with a Code of Conduct that explicitly prohibits any interaction with minors, and ▪ Applies a zero-tolerance approach to SEA/SH, particularly in areas surrounding the school. ▪ Targeted SEA/SH and child protection training will be provided to workers, with specific emphasis on appropriate behaviour in school-adjacent areas. ▪ A formal communication and coordination mechanism will be established with school administration. ▪ SEA/SH cases shall be handled separately from general grievances, ensuring confidentiality and safety.	▪ Grievance records from the school administration and school children ▪ Percentage of workers attended the trainings. ▪ The number of cases reported and recorded by the project management.	▪ Construction Camp Site	▪ Grievances ▪ Regular consultation with the school administration and children	▪ Whenever necessary	▪ SEP ▪ Employment and Training procedure ▪ Community Relations Management Procedure ▪ Contractor's Labor Management Plan	▪ Grievance records ▪ Training records	Contractor EHS team and CLO

4.11 Land Acquisition and Resettlement

4.11.1 Baseline Conditions

The Camp/Mobilization Area is owned by the Hatay Governorship and has been allocated to the General Directorate of Infrastructure Investments under the Ministry of Transport a 64,199.45 m² portion of Plot 959, Parcel 72, located in Turunçlu Neighborhood, Erzin District, Hatay Province. The contractor is establishing a temporary construction camp on this site. Although the camp has not yet been fully established, it is anticipated that the allocated area is of sufficient size for the planned activities, and no additional allocation will be required. Field observations conducted in May 2025 and confirmed that there are no informal users present in the area, and no agricultural activities are being carried out on the land. Therefore, the use of the Camp/Mobilization Area does not pose any resettlement risks. In other words, no involuntary resettlement is anticipated. The area has been confirmed to be free of informal users, and no agricultural activities are taking place on the land. Therefore, the use of the Camp/Mobilization Area does not pose any resettlement risks. In other words, no involuntary resettlement is anticipated.

Additionally, no agricultural activities were observed on adjacent lands, and the establishment of the camp is not expected to hinder the mobility or access of local farmers.

4.11.2 Potential Impacts and Risks, Mitigation Measures and Monitoring Plan

Table 4-29 outlines the potential land use-related risks and the mitigation measures to be implemented.

Table 4-29. Land Acquisition and Resettlement – E&S Mitigation and Monitoring Plan

Issue	Phase	Potential E&S Impacts and Risks	Mitigation Measures	Monitoring Parameter	Monitoring Location	Monitoring Method	Monitoring Frequency	Legal Requirements and Relevant Plans/Procedures	Key Performance Indicators	Responsible Party
Informal Land Use	Construction	▪ Although no informal users were observed during site visits, there is a potential risk of seasonal or undocumented land users appearing later	▪ Regular monitoring of the area during construction will be maintained. ▪ A grievance mechanism for local residents to report access issues will be used. ▪ Claims will be documented and verified transparently.	▪ Number of cases on informal use	▪ Construction Camp Site	▪ Observations	▪ Weekly	▪ RP, Expropriation Law, No: 2942, ESS 5	▪ Monthly reports	Contractor's social team
Access Restrictions	Construction	▪ The presence of the camp or its security measures could inadvertently restrict access to neighboring lands or paths used by locals, even if not currently farmed.	▪ All local access routes will remain open unless there is a safety risk. ▪ If any access is restricted, alternative routes with community consultation will be provided.	▪ Number of incidents related to access obstacles	▪ Construction Camp Site	▪ Registered claims and requests	▪ Weekly	▪ Community Health and Safety Management Plan, ESS 5	▪ Monthly reports	Contractor's OHS and social teams
Agricultural Activity Spillover	Construction	▪ While there is no farming near the site currently, seasonal or opportunistic planting could occur close to the boundary during operation.	▪ Visible boundary markers will be installed and signage ▪ Nearby residents will be engaged to explain the nature and duration of the camp. ▪ Encroachment will be prevented through regular site inspections.	▪ Visibility of camp boundaries ▪ Number of stakeholder engagement activities	▪ Construction Camp Site	▪ Reports, observations, number of claims	▪ Weekly	▪ RP, ESS5	▪ Monthly reports	Contractor's social team

5 STAKEHOLDER ENGAGEMENT AND GRIEVANCE MECHANISM

The Stakeholder Engagement Plan of the project has been prepared by DGII. In line with this plan, a project-specific grievance mechanism has been established, and communication with stakeholders is being maintained throughout all phases of the project.

With regard to the construction site camp area, the main stakeholders of the project have been identified as:

- the local community in the nearest residential area,
- primary school students,
- teachers, directors, drivers and other staff working in school
- local suppliers,
- Local NGOs,
- workers, and
- Local Authorities: Erzin Municipality, the village head (muhtar) of Yukarıburnaz, and the village head (mukhtar) of Turunçlu.

The stakeholder consultations conducted between 16th-19th September, 2025 during the preparation of the baseline study are as follows:

1- Five (5) Muhktars from the project affected neighborhoods have been interviewed with a structured questionnaire,

2- Thirteen households from the Yanıkdeğirmen settlement have been visited representing 87% of the total households, and a total of 17 individuals have been interviewed using a structured questionnaire,

3- School teachers and directors have been visited and interviewed, and

4- Grocery owner within the Yanıkdeğirmen settlement's boundary has been interviewed.

Stakeholder engagement will be maintained through regular visits, meetings, and trainings on community health and safety.

The information brochure prepared for the project will be distributed within the Area of Influence (AoI) to ensure that stakeholders are informed about the project.

During information sessions and consultations, stakeholders will be made aware of the available communication channels and will be able to submit their requests, questions, and complaints through these channels. Stakeholder consultation plan is given in the table below:

Table 5-1 Stakeholder Consultation Plan

Stakeholders	Consultation Subjects	Consultation Method	Period	Responsible person	Phase
Local Communities					
Residents	Consultation about project stages; informing on possible effects of the project and communication and stakeholder mechanisms.	Visit, meetings, brochure	Monthly	CLO Social expert (Contactor)	Construction & Operation

Stakeholders	Consultation Subjects	Consultation Method	Period	Responsible person	Phase
School children and staff	Sharing the details on the project timeline, daily activities, traffic plans, and similar information to ensure smooth Project implementation and to avoid or mitigate potential social risks and impacts. Sharing communication mechanisms and informing about grievance mechanism of the Project.	Visit, meetings, interactive trainings, brochure, social media, website	Quarterly	CLO (Contractor) OHS expert(Contractor) External traffic experts from gendarme for supporting the training sessions.	Construction & Operation
Project Impacted Neighborhoods' Mukhtars	Consultation about project stages; informing about possible effects of the project and communication mechanisms with stakeholders; informing about grievance mechanism	Visit, meetings, phone, WhatsApp message, website, social media	Whenever necessary	CLO (Contractor), Social expert (Contractor)DGII	Construction & Operation
Vulnerable Groups	Consultation about project stages; informing about possible effects of the project and communication mechanisms with stakeholders; informing about grievance mechanism	Visits, social media, brochure	Quarterly	CLO (Contractor), Social expert (Contractor) DGII	Construction & Operation
Women PAPs	Consultation about project stages; informing about possible effects of the project and communication mechanisms with stakeholders;	Visit, brochure, meetings organized with the support of mukhtars	Quarterly	CLO (Contractor), Social expert (Contractor) DGII	Construction

Stakeholders	Consultation Subjects	Consultation Method	Period	Responsible person	Phase
	informing about grievance and demand mechanism. Mitigations taken against GBVH				
Public Institutions					
Erzin Municipality	Permissions, consultation about project stages; informing about grievance and demand mechanism	Meetings, visits, phone, website and social media	Whenever necessary	Project Manager, CLO (Contractor) Social expert (Contractor)	Construction
Hatay, Regional Traffic Control Branch Directorate	Permissions, consultation and cooperation about trainings, signboards, mitigation measures	Meetings, visits, phone, website and social media	Whenever necessary	Project Manager CLO (Contractor) OHS expert (Contractor)	Construction
NGOs					
Eastern Mediterranean Environmental Platform, Erzin Environmental Protection Association, Erzin Volunteers Association	Consultation about project stages; informing about possible effects of the project and communication mechanisms with stakeholders; informing about grievance and demand mechanism	Meetings, visits, phone, website and social media	Quarterly	Project Manager CLO (Contractor) Social expert (Contractor) DGII	Construction & Operation
Project Employees					
All project employees (Office staff and site workers including subcontractors' workers)	Trainings on Project standards, GBV, SEA, SH, project grievance mechanism, workers' rights	Meetings, interviews in person, consultations	Quarterly	Project Manager CLO (Contractor) Social expert (Contractor) HR expert (Contractor)	Construction

5.1 Grievance Management Procedure

As part of the Project's SEP, a dedicated and accessible grievance mechanism has been implemented to address concerns raised by both internal and external stakeholders.

For Workers submission channels:

- Written complaints via the on-site complaint box (Signs will be placed within the camp for complaint boxes location.)
- Complaint boxes will be checked every 2 days
- Verbal communication with supervisors or project staff

Documentation:

- All grievances are logged in the official grievance register

For Local Communities Access Point:

- A complaint box has been installed in front of the local grocery store in Yanıkdeğirmen and in front of the Mosque in Yukarıburnaz.
- Project brochures and contact information are available at this location with the contact name and phone number which PAPs can reach.

- All complaints will be logged in the grievance tracking list within two (2) business days of receipt.
- The Özgün-Özdemir JV Social Team will investigate and respond to each complaint within fifteen (15) business days, acknowledging that complex issues may require additional time.
- In such cases, the complainant will be informed about the extended timeline, the required corrective actions, and next steps to resolve the issue.
- All responses will be consistent with the Project's social mitigation measures, and any compensation-related decisions will be aligned with project standards and predefined criteria.
- Complaints will be handled confidentially and anonymously when necessary.

***Note**: Any alternative agreement must be reached within the initial 30-day period. If no agreement can be made between Özgün-Özdemir JV and the complainant, the procedures outlined in the Stakeholder Engagement Plan of DGII will be followed.*

5.1.1 Grievance Resolution

- Appropriate corrective actions must be agreed upon with the complainant.
- If the complainant disagrees with the proposed resolution, their comments will be reviewed in accordance with the DGII Project's social mitigation measures and project standards.
- A mutually acceptable solution must be reached during the resolution process.
- The Özgün-Özdemir JV Social Team, in collaboration with relevant departments, aims to resolve all complaints within thirty (30) business days.
- If grievance cannot be resolved internally, the involvement of external parties (e.g. NGOs or local/regional authorities) may be considered.

5.2 Internal Grievances Handling Procedure

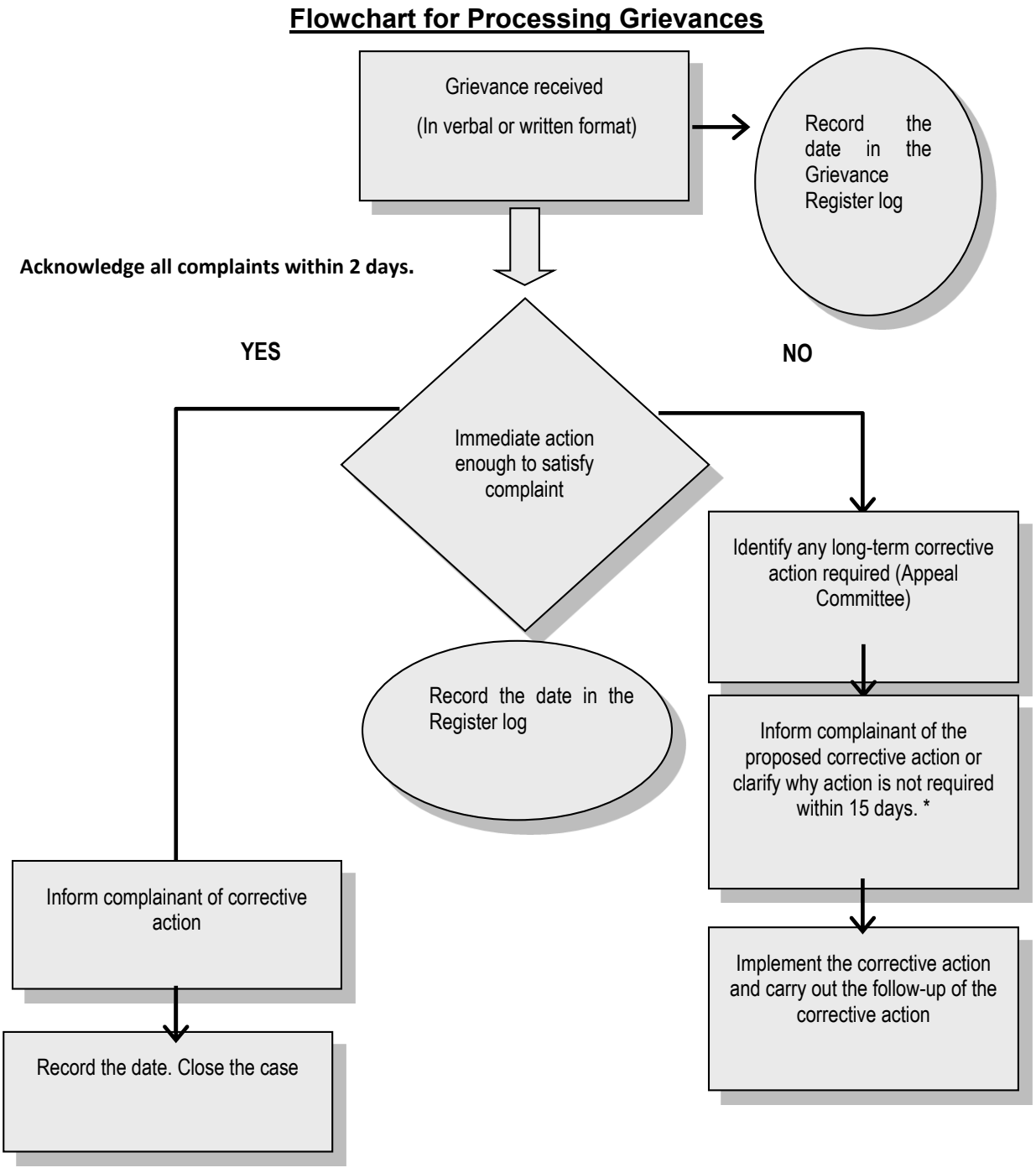
Complaints from project workers will also be handled in accordance with the procedures described above.

Workers will be informed about the grievance mechanism through dedicated training. Complaint boxes will be installed in both the site cafeteria and the office.

Worker complaints will be addressed in line with the procedures previously outlined. Special care will be taken to ensure that complaints remain anonymous and confidential.

In particular, allegations related to Gender-Based Violence (GBV) and Sexual Exploitation, Abuse and Sexual Harassment (SEA/SH) will result in appropriate sanctions, and if requested by the complainant, such grievances will be handled anonymously and confidentially.

5.3 Grievance Flowchart



** Depending on the type of grievance, this deadline might be extended to up to a total of 30 days.*

6 MONITORING AND REPORTING REQUIREMENTS

The Contractor shall be responsible for the following under the Project's ESMP:

- **Implementation of Mitigation Measures**
  - Ensure that all mitigation measures defined in the ESMP and related E&S sub-plans are implemented effectively during pre-construction, construction, and operation phases.
  - Take immediate preventive corrective action in case of any unexpected E&S incident.
- **Compliance with Standards**
  - Comply with all requirements of the ESMP, relevant E&S sub-plans, national legislation, and the World Bank ESF.
  - Meet monitoring, reporting, and audit obligations in line with Project standards and DGII requirements.
- **Monitoring and Reporting**
  - Monitor the effectiveness of mitigation measures and verify compliance with Project standards.
  - Record, document, and report monitoring results periodically to DGII, through the Design and Supervision Consultant when applicable.
  - Update project-specific E&S management plans when necessary, reflecting site conditions, DGII requirements, and World Bank guidance.
  - Prepare monthly Environmental and Social Monitoring Reports (ESMRs) and submit them to the Supervision Consultant and/or DGII. The Contractor shall address and incorporate any feedback, comments, or corrective actions provided by these parties in a timely manner to ensure continuous compliance with Project standards.
- **Change Management**
  - Notify DGII promptly in case of unforeseen project changes or additional E&S studies.
  - Contribute to ESMP updates as part of the Management of Change Process and/or prepare supplementary E&S documents (see Appendix-3).
- **Access and Implementation**
  - Ensure Contractor and sub-contractor(s) staff have access to the latest approved version of the ESMP and related plans.
  - Implement revised measures immediately after DGII approval of updates.

The summarized list of key performance indicators that must be monitored and managed during the construction and operation phases of the Project, within the scope of the monthly E&S monitoring reports, accordingly is provided in Table 6-1.

Table 6-1. Summarized List of Key Performance Indicators

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
Land Use, Soil and Geology	▪ Construction and maintenance of interception and drainage channels	▪ All designed interception and drainage channels constructed and maintained in good condition throughout the construction and operation periods	-	Monthly	Construction Camp Site Manager and Environmental Experts
	▪ Number of leakage/spill incidents recorded	▪ Zero spill or leakage incidents	-	Monthly	Construction Camp Site Manager and Environmental Experts
	▪ Amount of contaminated soil generated and quantity transported to licensed disposal facilities	▪ 100% of contaminated soil managed and disposed at licensed facilities	-	Monthly	Construction Camp Site Manager and Environmental Experts
	▪ Number and percentage of personnel trained in emergency response to spills and leaks	▪ 100% of relevant personnel trained annually	-	Monthly	Construction Camp Site Manager, Environmental and OHS Experts
	▪ Number of OHS accidents/incidents recorded during and after natural disasters	▪ Zero OHS accidents/incidents	-	Monthly	OHS Experts
	▪ Damage situation after the earthquake (extent and severity of environmental/social impact)	▪ Immediate assessment and restoration actions completed within 48 hours post-event	-	Monthly	Construction Camp Site Manager
Noise	▪ Noise measurement results at project boundaries and nearest sensitive receptors	▪ Full compliance with the project standards and no exceedance of noise limit values	Regulation on Environmental Noise Control (Annex-2, Table 1 and Table 3) and the WBG General EHS Guidelines (Table 1.7.1)[8]	Monthly	Environmental Experts

[8] See the parameters to be measured and the threshold values in Table 4-3

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
	▪ Number of noise-related grievances received	▪ Zero grievances	-	Monthly	Environmental Experts and CLO
	▪ Number and percentage of personnel trained in noise management practice	▪ 100% of relevant personnel trained annually	-	Monthly	Environmental Experts
Air Quality and Odor	▪ Air quality measurement results at project boundaries and nearest sensitive receptors	▪ Full compliance with the project standards and no exceedance of air quality limit values	Regulation on the Control of Industrial Air Pollution Annex-2, Table 2.2) and WBG General Environmental, Health, and Safety Guidelines (Table 1.1.1)[9]	Monthly	Environmental Experts
	▪ Number of air quality–related grievances received	▪ Zero grievances	-	Monthly	Environmental Experts and CLO
	▪ Number of verified odor–related grievances received	▪ Zero grievances	-	Monthly	Environmental Experts and CLO
	▪ Presence of stagnant wastewater or sludge accumulation	▪ None observed during routine site inspections	-	Monthly	Environmental Experts
	▪ Sludge removal frequency and transport conditions	▪ Sludge removed at least once per month; transported in sealed containers	-	Monthly	Environmental Experts
	▪ Number and percentage of personnel trained in air quality management	▪ 100% of relevant personnel trained annually	-	Monthly	Environmental Experts
Water Resources and Wastewater	▪ Analysis of treated wastewater quality	▪ 100% compliance with applicable standards for reuse	Water Pollution Control Regulation and the Communiqué on Technical Procedures for Wastewater Treatment Plants (Annex-7, Table 7.1, Category A and/or B)[10] and/or meets the criteria	Monthly	Environmental Experts

[9] See the parameters to be measured and the threshold values in Table 4-5 and Table 4-6

[10] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=13873&MevzuatTur=9&MevzuatTertip=5

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
			outlined in the WWTP Identity Certificate.		
	▪ Existence and proper operation of wastewater collection systems (use of impermeable septic tanks and/or package WWTP)	▪ Continuous and effective operation of all systems without overflow, leakage, or malfunction	-	Monthly	Environmental Experts
	▪ Rate of timely acquisition of institutional permits and approvals	▪ 100% of required permits and approvals obtained before related activities commence	-	Monthly	Environmental Experts
	▪ Number of water quality–related grievances received	▪ Zero grievances	-	Monthly	Environmental Experts
	▪ Quantity of domestic and industrial wastewater generated, volume sent to WWTP, and volume of treated wastewater reused	▪ 100% of generated wastewater collected and treated; maximize reuse where feasible	-	Monthly	Environmental Experts
	▪ Water quality monitoring results	▪ Full compliance with national and project water quality standards	Surface Water Quality Regulation, Annex-5-Table 2[11]	Monthly	Environmental Experts
	▪ Number and percentage of personnel trained on water and wastewater management	▪ 100% of relevant personnel trained annually	-	Monthly	Environmental Experts
	▪ Number of spill incidents related to water or wastewater systems	▪ Zero spill incidents	-	Monthly	Environmental Experts
	▪ Amount of groundwater used (m³/day)	▪ Within permitted abstraction limits stated in DSİ authorization	Groundwater Utilization Permit (extraction amount: 144 tons per day, 51,840 tons per year)	Monthly	Environmental Experts
	▪ Groundwater quality analysis results (if groundwater used by project personnel)	▪ Full compliance with the project standards and no exceedance of limit values for human consumption	Regulation on Water Intended for Human Consumption[12]	Monthly	Environmental Experts

[11] See the parameters to be measured and the threshold values in Table 4-8

[12] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=7510&MevzuatTur=7&MevzuatTertip=5

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
			and/or WHO Drinking Water Guidelines[13]		
Resource and Waste	▪ Reduction rate in resource and energy use, based on the Resource Usage Monitoring Chart	▪ Continuous improvement with ≥5% annual reduction compared to baseline, where feasible	-	Monthly	Site Manager and Environmental Experts
	▪ Proportion of reused, recycled, or recovered waste relative to total waste generated	▪ ≥50% of total waste reused, recycled, or recovered (excluding hazardous waste)	-	Monthly	Environmental Experts
	▪ Waste segregated based on hazardous classification and type (hazardous, non-hazardous, recyclable, organic, etc.)	▪ 100% segregation at source and proper labeling	-	Monthly	Environmental Experts
	▪ All waste types transferred to appropriate licensed recycling or disposal facilities	▪ 100% of waste transferred to licensed and authorized facilities	-	Monthly	Environmental Experts
	▪ Timely and comprehensive waste reporting compliance rate (including online reporting via the Integrated Environmental Information System, if applicable)	▪ 100% compliance with reporting schedule and regulatory requirements	-	Monthly	Environmental Experts
	▪ Number of incidents involving soil contamination due to improper waste management	▪ Zero contamination incidents	-	Monthly	Environmental Experts
	▪ Total number and percentage of personnel trained in waste management practices	▪ 100% of relevant personnel trained annually	-	Monthly	Environmental Experts
Biodiversity	▪ Seed Gene Bank delivery receipts	▪ Seeds for priority plant taxa are collected and delivered to the Seed Gene Bank.	-	After the seed period	Ecological Clerk of Works (ECoW) / Biodiversity Expert

[13] https://www.who.int/publications/i/item/9789240045064

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
	▪ Density of invasive alien species	▪ The decrease in population density or complete extinction of invasive alien species	-	Seasonal	Ecological Clerk of Works (ECoW) / Biodiversity Expert
	▪ Recording of injured or dead wild animals ▪ Number of incidents and accidents potentially affecting the critical habitat and protected sites	▪ No injured or dead wild animals ▪ Zero incidents and accidents affecting critical habitat	-	Monthly	Ecological Clerk of Works (ECoW) / Biodiversity Expert
Cultural Heritage	▪ Number of known archaeological/cultural heritage sites damaged during construction activities	▪ 0 (no damage to known or registered cultural heritage sites)	-	Monthly	Archeologist
	▪ Number of times work was stopped by the Contractor due to chance finds	▪ 100% of chance finds reported immediately and work stopped in accordance with the approved Chance Find Procedure	-	Monthly	Archeologist
	▪ Adequacy and effectiveness of the Chance Find Procedure implementation	▪ All chance finds documented, reported, and managed in full compliance with the approved Chance Find Procedure and ESS8 requirements	-	Monthly	Archeologist
	▪ Authorization process for test pits or rescue excavations within the boundaries of a first-degree archaeological site	▪ Formal authorization obtained from the relevant cultural heritage authority prior to any works; 100% compliance rate	-	Monthly	Archeologist
	▪ Design modifications implemented due to chance finds (e.g., rerouting, reconfiguration)	▪ Design changes implemented where required, following approval by cultural heritage authorities; all delays documented and justified	-	Monthly	Archeologist
	▪ Resources provided for rescue excavations (archaeology team, equipment, time, budget, etc.)	▪ Adequate resources mobilized within 5 working days of authorization; no interruption due to lack of support or funding	-	Monthly	Archeologist

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
	▪ Total number of chance finds identified and recorded during construction activities	▪ 0 unreported chance finds	-	Monthly	Archeologist
Occupational Health and Safety and Accommodation Management	▪ H&S Policies communicated to all project personnel	Compliance with the annual work plan	-	Monthly	OHS Experts
	▪ Senior Management engagement in H&S Meetings / Demonstrate visible leadership	Compliance with the annual work plan	-	Monthly	OHS Experts
	▪ Weekly H&S Meetings with Subcontractors	Compliance with the work contract and project standards	-	Monthly	OHS Experts
	▪ H&S Walkdowns	Compliance with the annual work plan	-	Weekly	OHS Experts
	▪ H&S Induction – All project site personnel received before commencing work at site	Compliance with the annual training plan	-	Before commencing work	OHS Experts
	▪ Emergency Drills	Adherence to the annual emergency drill plan	-	Quarterly	OHS Experts
	▪ Accident, Incident, and Near-Miss Statistics / Logs	Zero work-related fatalities, Year-on-year reduction in recordable OHS incidents, Timely notification to the administration and relevant authorities, 100% of recordable incidents subject to formal Root Cause Analysis within the agreed timeframe, 100% of corrective actions closed within the agreed timeframe.	-	Continuous	OHS Experts

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
	▪ Worker Grievances Related to Accommodation (Food, medical services, security, sanitary conditions and other facilities)	% of closed or adequately responded to within 15 days	100% of the grievances closed or adequately responded to within 15 days	Monthly	Social Experts, Construction Camp Site Manager and CLO
	▪ Housing standards (minimum space allocated per person, supply of safe water, adequate sewage and garbage disposal systems, adequate protection against all kinds of external threats, adequate sanitary and washing facilities etc.)	Compliance with the IFC & EBRD – Workers' Accommodation: Processes and Standards, ESS2 /national/local regulatory frameworks on workers' accommodation	100% compliance with international and national standards.	Monthly	Social Experts, Construction Camp Site Manager and CLO
	▪ Number of non-conformities detected during food hygiene inspections.	Compliance with the National Food Hygiene Regulation	The practices are 100% compliant with the National Food Hygiene Regulation.	Daily	Construction Camp Site Manager
	▪ Social areas, recreation areas and welfare conditions.	Compliance with the IFC & EBRD – Workers' Accommodation: Processes and Standards, ESS2 /national/local regulatory frameworks on workers' accommodation	100% compliance with international and national standards.	Monthly	Social Experts, Construction Camp Site Manager and CLO
Community Relations	▪ # of grievances and complaints (Broken down into complaint categories eg. noise, dust, land issues, GBV, SEA, SH) etc.)	NA	0	Monthly	Social Experts and CLO
	▪ Grievances acknowledged within 2 days	% of grievances acknowledged	100%	Monthly	Social Experts and CLO
	▪ Grievances responded to within 15 days	% of grievances responded	100%	Monthly	Social Experts and CLO
	▪ Grievances closed	% of grievances closed	100%	Monthly	Social Experts and CLO
Community H&S	▪ Grievances recorded (Dust, noise, traffic accidents etc.)	NA	0	Monthly	Social Experts and CLO

Issue	Monitoring Parameters	Key Performance Indicators	Threshold Value/ Targeted Value (If any)	Period	Responsibilities
	▪ Community safety initiatives implemented (Training sessions, meetings)	NA	4 Times a year	Quarterly	Social Experts and CLO
Labor Management	▪ Unskilled staff employed from affected provinces	% of unskilled staff	100%	Monthly	Social Experts and CLO
	▪ Worker grievances	# of worker grievances	0	Monthly	Social Experts and CLO
GBV /SEA/ SH	▪ Grievances related to GBV/SEA/SH	# of grievances	0	Monthly	Social Experts and CLO
	▪ Trainings on GBV	# of trainings on GBV	100% of the staff	Monthly	Social Experts and CLO

7 CAPACITY DEVELOPMENT AND TRAINING

The contractor will prioritize E&S risks during the construction camp site activities and will implement a comprehensive ESMP training and awareness program (see Table 7-1 and see also Main Project's ESMP, Section 6.3, Table 11). Within this scope, full compliance with the Consolidated Training Program will be ensured.

Table 7-1. Training Program

Training Topics	Special Training Topics	Trainer within the Contractor	Frequency	Target Group
Induction Training	▪ Introduction to the organization ▪ Workplace Culture and Environment ▪ Role specific training ▪ Compliance and legal requirements ▪ Introduction to teams and departments ▪ Environmental, social and OHS management	HR Department in coordination with EHS Team	Prior to commencing work	Newly recruited personnel Personnel of newly contracted subcontractor-service provider
Environmental Management	▪ Pollution Prevention and Resource Efficiency ▪ Waste Management ▪ Requirements of the National Legislation and Project Standards along with the ESMP	Environmental Team	At least twice a year	All project personnel
OHS Management	▪ Introduction to Occupational Health and Safety ▪ Workplace Hazards and Risk Assessment ▪ Emergency Procedures ▪ Personal Protective Equipment (PPE) ▪ Construction and Site-Specific Safety ▪ Incident Reporting, Root Cause Analysis and Investigation ▪ Task-Specific Toolbox	OHS Specialists	Whenever necessary (Before the special tasks) At least twice a year	All project personnel
Biodiversity Management	▪ Introduction to biodiversity ▪ Threats to Biodiversity ▪ Sustainable Practices	Biodiversity Specialist	At least twice a year	All project personnel
Cultural Heritage Management	▪ Introduction to cultural heritage ▪ Conservation/preservation techniques for tangible and intangible cultural heritage	Archeologist in coordination with CLO	At least twice a year	All project personnel
Labor Management	▪ Code of Conduct ▪ Worker's GM ▪ SEP requirements	Social Team	At least twice a year	All project personnel
Gender-based violence (GBV), sexual	▪ Code of Conduct ▪ Introduction to Gender-Based Violence (GBV)	Social Team	As often as necessary as	All project personnel

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Training Topics	Special Training Topics	Trainer within the Contractor	Frequency	Target Group
exploitation and abuse/sexual harassment (SEA/SH)	▪ Sexual Harassment Awareness ▪ Legal Framework and Policies ▪ Prevention Strategies ▪ Response and Reporting Mechanisms		new workers join	
Community Health, Safety and Security Management	▪ Traffic and Road Safety Principles for school (Introduction to Traffic Safety, Pedestrian Safety, Bicycle Safety, School Bus and Vehicle Safety, Traffic Signs and Signals, Emergency Procedures, Interactive Activities and Simulations) ▪ Environmental and Social Sensitivities ▪ SEP and GM ▪ Community Communication	Social Team in coordination with EHS Team and other external experts	Quarterly	Students, teachers, directors and other staff working in the school

8 APPENDICES

Appendix-1 EIA, Environmental Permits, and Other Regulatory Requirements

Appendix-1.1 Construction Camp Site Handover Protocol

YER TESLİM TUTANAĞI

T.C. Ulaştırma ve Altyapı Bakanlığı, Altyapı Yatırımları Genel Müdürlüğü tarafından yürütülmekte olan "*Çukurova Bölgesindeki Sanayi Tesislerine, Yumurtalık Serbest Bölgesine ve İskenderun Körfezi Limanlarına Bağlantı Demiryolu Hatlarının Yapım İşleri*" kapsamında mülkiyeti Hatay Valiliğine ait, Altyapı Yatırımları Genel Müdürlüğüne tahsis edilen Hatay İli, Erzin İlçesi, Turunçlu Mahallesi, 959 Ada, 72 Parselin, Ek-1'deki krokide gösterilen 64.199,45 m^2'lik kısmının proje süresince barınma, ofis alanı ve beton santrali olarak, geçici kullanılması amacıyla Ek-2 yazı ile yer tesliminin yapılması istenmiştir.

Söz konusu parselde Ek-1'deki krokide gösterilen alan 28./05/2025 tarihinde teslim edilmiştir/ alınmıştır. (Kullanım süresince, diğer olası yasal izinlerin alınması gerekmektedir.)

Teslim Eden
Ekrem ÖZER
Şube Müdürü

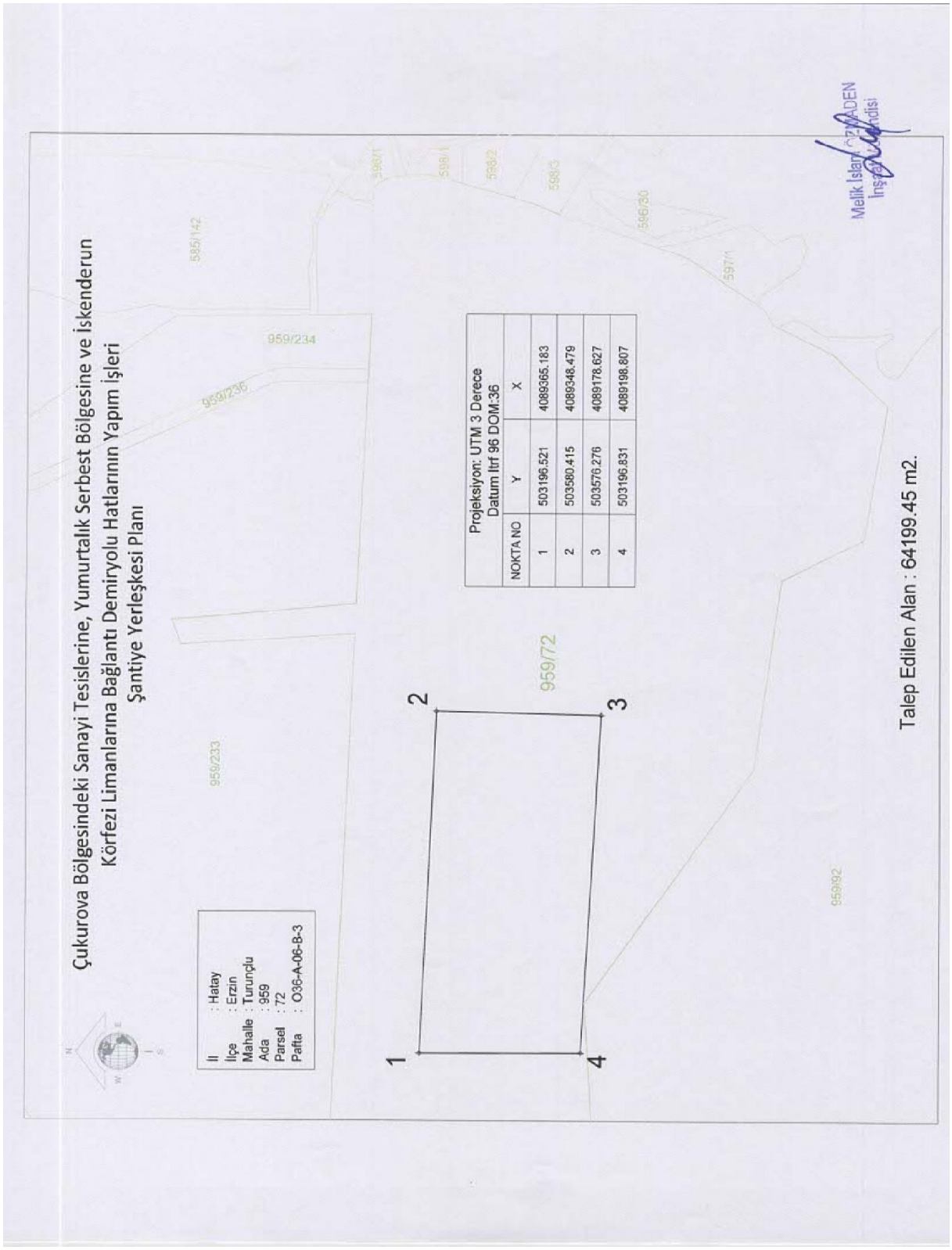
Teslim Alan
Melik İslam ÖZMADEN
İnşaat Mühendisi

Ek-1: Şantiye yerleşkesi olarak kullanılacak alanın koordinatlı planı.

Ek-2a: T.C. Ulaştırma ve Altyapı Bakanlığı, Altyapı Yatırımları Genel Müdürlüğü'nün 16.05.2025 tarih ve E-74525703-755.99-2733205 sayılı yazısı.

Ek-2b: Hatay Valiliği, Yatırım İzleme ve Koordinasyon Başkanlığı'nın 20.05.2025 tarih ve E- 77068767-000-209636 sayılı yazısı.

Ek-2c: T.C. Ulaştırma ve Altyapı Bakanlığı, Altyapı Yatırımları Genel Müdürlüğü'nün 26.05.2025 tarih ve E-74525703-755.99-2755318 sayılı yazısı.



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Appendix-1.2 EIA Decision for the Concrete Batching Plant

T.C.
HATAY VALİLİĞİ
Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü

Sayı : E-26634441-220.03-13037624
Konu : Çed Muafiyet Hk.

DESAM ÇEVRE MADEN MÜHENDİSLİK HİZ.DANIŞMANLIK İNŞ. YAPI MALZEMELERİ PETROL SAN.TİC.LTD.ŞTİ.NE

İlgi : a) Desam Çevre Maden Mühendislik Hiz.Danışmanlık İnş. Yapı Malzemeleri Petrol San.Tic.Ltd.Şti.'nün 03.07.2025 tarihli ve 705 sayılı yazısı.
b) 10/07/2025 tarihli ve 218320 Referans No'lu Başvuru.

Hatay İli, Erzin İlçesi Turunçlu Mahallesi 959 Ada 72 parselde **Özgün İnşaat Taahhüt Sanayi ve Tic.Ltd.Şti.&Özdemir İnşaat Turizm Enerji San. ve Tic. A.Ş. Adi Ortaklığı** tarafından yapılması planlanan **95 m3/saat** Kapasiteli **Beton Santrali Projesi** , 25/11/2014 tarih ve 29186 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren ÇED Yönetmeliği Listelerindeki eşik değerden az olduğu için **kapsam dışı** olarak değerlendirilmiştir.

Ancak, planlanan yatırım ile ilgili olarak, 5491 sayılı kanunla değişik 2872 sayılı Çevre Kanunu ile bu Kanuna istinaden çıkarılan Yönetmeliklerin ilgili hükümlerine uyulması ve diğer mer'i mevzuat çerçevesinde öngörülen gerekli izinlerin alınması, ekolojik dengenin bozulmamasına, çevrenin korunmasına ve geliştirilmesine yönelik tedbirlere riayet edilmesi gerekmektedir.

Bilgilerinizi ve gereğini rica ederim.

İsmail CEYLAN
Çevre, Şehircilik ve İklim Değişikliği İl Müdürü

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: 4EB31C37-2B64-49B2-A12A-AEFF5D564714 Doğrulama Adresi: https://www.turkiye.gov.tr
hatay@csb.gov.tr
KEP Adresi : hataycevresehirilmud@hs01.kep.tr
Bilgi için:Fatih ATAKÖŞKER
Çevre Mühendisi

Appendix-1.3 Hazardous Materials and Hazardous Waste Liability Insurance Policy



TEHLİKELİ MADDELER VE TEHLİKELİ ATIK ZORUNLU MALİ SORUMLULUK SİGORTA POLİÇESİ

OTO DIŞI

Değerli Müşterimiz,

Allianz ailesine hoş geldiniz.
Sizleri aramızda görmekten çok mutluyuz, her zaman sizin ve sevdiklerinizin yanınızdayız. Allianz TEHLİKELİ MADDELER VE TEHLİKELİ ATIK ZORUNLU MALİ SORUMLULUK ürünümüzü tercih ettiğiniz için teşekkür ederiz.

SATIŞ KANALI BİLGİLERİ

Acente Adı :	9668 SİNAN SANLI SİGORTA ARACILIK HİZMETLERİ LTD.ŞTİ.
Adres :	Türkiye, Ankara 06680, Çankaya, Kazım Özalp Mah. Kırçiçeği Sokak No:7/5
Telefon :	5300303240
E-Mail:	nihan@sanlisigorta.com
Faks :	3122323450
Levha Kayıt No :	G10419-1PFR
Teknik Personel :	Sinan Deniz

POLİÇE BİLGİLERİ

Poliçe No	Başlangıç Tarihi	Bitiş Tarihi
0001-0310-05395559	28/10/2025 12:00	28/10/2026 12:00
Süresi :	1 yıl	

SİGORTA ETTİREN BİLGİLERİ

Adı Soyadı :	262161655 Özgün-Özdemir Adi Ortaklığı	TCK No/VKN :	692*****43
Adresi :	Uavt: 5490306817, Türkiye, Hatay 31960, Erzin, Merkez, Merkez, Yukarıburnaz Mah. , 2313 Cad./Sok. , No:51		
GSM/E-mail :	55* 1** 6* *4 / i**********@ozguninsaat.com		

SİGORTALI BİLGİLERİ

Adı Soyadı :	Özgün-Özdemir Adi Ortaklığı
Adresi :	Uavt: 5490306817, Türkiye, Hatay 31960, Erzin, Merkez, Merkez, Yukarıburnaz Mah. , 2313 Cad./Sok. , No:51
GSM/E-mail :	55* 1** 6* *4 / i**********@ozguninsaat.com

RİZİKO BİLGİLERİ

Riziko Adresi :	UAVT: 5490306817, TÜRKİYE, HATAY 31960, ERZİN, MERKEZ, MERKEZ, YUKARIBURNAZ MAH. , 2313 CAD./SOK. , NO:51
Sigorta Konusu :	Tehlikeli Atık
Faaliyet Tip Kodu :	Üretim, Depolama, Toptan Satış ve Kullanım
Faaliyet Detay Kodu :	SATISI 674.999 TL'YE KADAR OLANLAR
Ürün Sınıfı :	2872 SAYILI ÇEVRE KANUNU KAPSAMINDA BULUNAN TEH. ATIKLAR
Çalışan sayısı :	1
Yıllık Toplam Ciro :	200000,00 TL
Denize Uzaklık :	999
Meskun Mahal :	Hayır
Ruhsat Veren Kurum :	Çevre Şehircilik ve İklim Değişikliği Bakanlığı
Bildirim Yapılacak Kurum :	Çevre Şehircilik ve İklim Değişikliği Bakanlığı
Ruhsat Numarası :	63153
Ruhsat Başlangıç Tarihi :	24/09/2025

Müşteri Kopyası NPSPO026

1/5



Figure: Temporary Hazardous Waste Storage Area



Figure: Temporary Non-Hazardous Waste Storage Area

Appendix-1.4 Groundwater Exploration and Utilization Permits

T.C.
TARIM VE ORMAN BAKANLIĞI
Devlet Su İşleri Genel Müdürlüğü
6. Bölge Müdürlüğü
Yeraltısuları Şube Müdürlüğü

2025 AİLE YILI

Sayı : E-74503738-152.02.02-6186848
Konu : Yeraltısuyu Arama Belgesi (Özgün - Özdemir Adi Ortaklığı)

Özgün - Özdemir Adi Ortaklığı
adına Tekn.Sor.Müh. Osman DONBALOĞLU eliyle
UZUNBANI MAH.REFİK CESUR BULV.NO:181/2 Düziçi/OSMANİYE

İlgi : Özgün - Özdemir Adi Ortaklığı'nın 25.07.2025 tarih ve 3304079 sayılı dilekçesi.

Hatay ili, Erzin ilçesi, Turunçlu Mahallesi 959 ada 72 nolu parselde açtıracağınız 1 adet kuyuya ait **A-32863** no'lu yeraltısuyu arama belgesi ve ekleri ilişikte gönderilmektedir. 167 sayılı Yeraltısuları Kanunun 9. maddesi uyarınca bir yıl süreli olarak bu arama belgesi verilmiştir.

Kuyu sulu çıksın veya çıkmasın :

1 – Kuyu kayıt defterleri kuyucu tarafından bir kuyu için 2 nüsha doldurularak Bölge Müdürlüğümüze gönderilecektir.

2 – Kuyu sulu çıktığı taktirde bir ay içerisinde, kullanma belgesi isteme dilekçesi tarafınızdan doldurularak; kuyu kayıt defterleri, su analiz raporları, su tecrübe formları ile birlikte Bölge Müdürlüğümüze iletilecektir.

167 Sayılı "Yeraltısuları Hakkında Kanun" gereğince yukarıda yazılı hususların dikkatle yerine getirilmesini, aksi halde hakkınızda yasal işlem yapılacağı hususunda;

Gereğini rica ederim.

Mehmet Yalçın ÇOMOĞLU
Bölge Müdürü a.
Bölge Müdür Yardımcısı

Ek: Arama Belgesi (A-32863) - Kuyu Kütüğü (2 Sayfa)

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: 4D8C6369-D064-4BE3-8B54-ECF9A6869C3F Doğrulama Adresi: https://www.turkiye.gov.tr/devlet-su-isleri-ebys

Adres: Cemalpaşa Mh.Ordu Cd.no:96 01120 Seyhan/ADANA
Telefon : (322) 459 05 90 Belgegeçer (Fax) : (322) 453 27 74
Kep Adresi : dsi.gnlmud@hs01.kep.tr Elektronik Ağ: www.dsi.gov.tr
KEP Adresi : dsi.gnlmud@hs01.kep.tr

Bilgi için:İbrahim Murat ALTUNTOP
Teknisyen
Telefon No:(322) 459 05 90-

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T.C.
TARIM VE ORMAN BAKANLIĞI
DSİ 6. Bölge Müdürlüğü
Yeraltısuları Şube Müdürlüğü

Form No : 2.7.2.
Belge No : A-32863
Belge Tarihi : 08.08.2025
Belge Tipi : A
Ebys No :
Tarih :

YERALTISUYU ARAMA BELGESİ

1. **Belge Sahibi** : ÖZGÜN – ÖZDEMİR ADİ ORTAKLIĞI
   Vergi Kimlik Numarası : Mecidyeköy Vd. 6920804243
   Adresi : Raufbey Mah. 9580 Sk. No:4 A Blok Daire NO:3 Merkez / OSMANİYE
2. **Teknik Sorumlu** :
   a) Adı Soyadı : Osman DONBALOĞLU
   b) Mesleği : Jeoloji Mühendisi
   c) Diploma-Oda Sicil No : 05/0013-3269
   d) Adresi : Uzunbanı Mah. Refik Cesur Bul. No:181/2 Düziçi/OSMANİYE
3. **Sondör, Kuyucu, Galerici** :
   a) Adı Soyadı : .....
   b) Mesleği : .....
   c) Diploma-Oda Sicil No : .....
   d) Adresi : .....
4. **Arama Yapılacak Arazinin** :
   a) İli : Hatay
   b) İlçesi : Erzin
   c) Mh. Veya Köyü : Turunçlu
   d) Ada/Parsel : 959/72
   e) Yüzölçümü : 64199 m²
   f) Kot/Koordinatı : 20 m D 236221 K 4091946
   g) Havza Adı : ASİ 19
   h) Ova Adı : Dörtyol 19-3-1
5. **Kuyunun** :
   a) Tipi : Derin Kuyu
   b) Delme usulü : Rotary
   c) DSİ No.su : A-32863
   d) Kullanma Amacı : Sanayi (Yangın-Temizlik
6. **Galerinin** :
   a) Kesiti :
   b) Açma usulü :
7. **Talep edilen su miktarı** : 144 Ton/gün 51840 Ton/yıl

25.07.2025 tarih ve **3304079** sayılı dilekçesi ile usulüne uygun olarak yapılan müracaat incelenerek, yukarıda yüzölçümü ve yeri belirtilen alan içerisinde ve yukarıda belirtilen kişilerce yeraltısuyu aramak amacıyla ekli ve onaylı projesine uygun bir adet kuyu inşasına sakınca görülmediğinden, 167 sayılı Yeraltı Suları Hakkında Kanunun 9 uncu maddesi uyarınca bir yıl süreli olarak bu arama belgesi verilmiştir.

8. a-Açılan kuyunun suyu yetersiz, susuz ve su kalitesi kullanıma elverişli değil ise kuyu terk edilmeden önce içerisi kil veya toprakla doldurulacak ve çevre güvenliği sağlanacaktır.
   b-Açılan kuyunun suyu yeterli ve işletmeye alınacak ise tüm sondaj ve test çalışmaları bitiminde kuyu başı uygun şekilde muhafaza altına alınmak üzere 1,0 m x 1,0 m x 0,5 m ebadında kuyu ağzı betonu dökülecek ve sac kapak ile kilitlenecektir.
   c-Kuyunun inşasında çamur havuzları açılmış ise iş bitiminde kum, çakıl veya toprakla doldurulacak ve çevre güvenliği sağlanacaktır.
   d-Kuyunun başlamasından bitimine kadar inşası Jeoloji Mühendisi teknik sorumlusu denetiminde ve sorumluluğundadır.
9. Hukuki sorun çıkması halinde belgeniz iptal edilecektir.

NOT: İŞBU "ARAMA BELGESİ" ELEKTRİK ABONELİĞİ İÇİN KULLANILAMAZ.

Ekler : 1) Kuyu Projesi (krokili) (1 adet)

Mehmet Yalçın ÇOMOĞLU
Bölge Müdürü a.
Bölge Müdür Yardımcısı

Not:İşbu belge sondaj kuyusuna OSOS'lu (Uzaktan okumalı ve ön yüklemeli) su sayacı takılması şartı ile verilmiştir.

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ÖZGÜN-ÖZDEMİR ADİ ORTAKLIĞI ADINA: ENGİN GER'E alt kuyunun inş.ve tatbik projesi.

A-GENEL DURUM	
Mevkii	TURUNÇLU
İli	HATAY
İlçesi	ERZİN
Bucağı	
Köyü	TURUNÇLU MAH.
Açılış Gayesi	SANAYİ
Su İhtiyacı	5 Lt/sn
Sulanacak Saha	64199,45 m²
Koordinatı	236221 E- 4091946 N
Kot	20 mt.
B-AÇAN FİRMA	
Adı	:TOROS SONDAJ
Makinenin Tipi	:Rotary
Sondaj	:88 m
Adres	Toros Sondaj

San. ve Tic. Ldi Şti Düziçi/ OSMANİYE

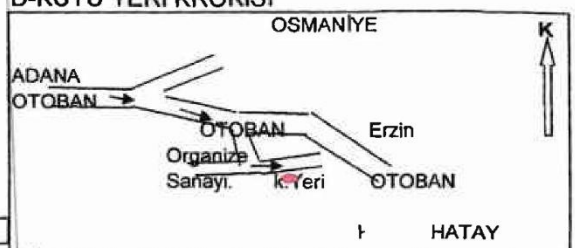
C-MESUL ŞAHISLAR

Mesleği	Adı	Diploma No	İmzası
Jeoloji Mühendisi	Osman DONBALOĞLU	3269	

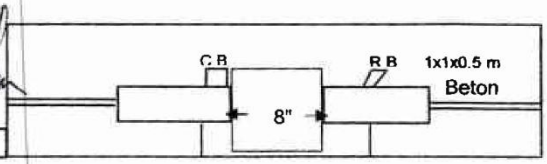
Adres:Uzunbanı Mah.R.cesur Bul.No:289 Düziçi/Osm

Kuyu Sahibi		Adı Soyadı/Adresi
	Özgün-Özdemir	Adana
	Engin DER (Proje Md.)	

D-KUYU YERİ KROKİSİ



Adana İlinden Erzin İlçesine 5 km kala sanayi kavşagından çıkılır.Eski Erzin yolundan 1 km gidildiğinde Turunçlu Mev-kiin'de bulunan kuyu yerine ulaşılır.



Karşılaşılan Özellikler	Delik Çapı (İnç)	Teçhiz Çapı (İnç)	Kuyu Şeması	Litolojik Kesit	Su veren Tbk.lar	Formasyonun Litolojik Tarifi
VERİLER 1-)akifer cinsi:Serbest 2-)akifer kalınlığı:Kong. 3-)tah.trans.:1000m³/gn/m 4-)statik svy.:30m 5-)Q ihtiyaç:1 lt/sn 6-)sulama mod:1 lt/sn/he PROJE HESABI 1-Qöz=(T/130)(1-0,25) =(1000/130)0,75=4,5 2-filtre hesabı 0.578x3=1.7 10/1.7=6mt Filtre em katsayısı6 mt. alınmıştır. 6x6=36mt Muhtemel filtre boyu HM:10/4.5+24+20=48 Muhtemel Dinamik Seviyesi İş Debisi:5 lt/sn Gün Çek.Su:3.6x5x8=144 ton/gün Yılda Çek.su:360x144=51840 ton/Yıl	12.5"	8"	10 20 30 40 50 60 70 80 90	Kuyu Tabanı 88m		0-2m. N. Toprak 2-88m. Konglomera

KONTROL EDİLMİŞTİR 09/05/202 Selih OYAN Jeoloji Mühendisi

UYGUNDUR Ziya SEREYAYA (Y)

T.C.
TARIM VE ORMAN BAKANLIĞI
Devlet Su İşleri Genel Müdürlüğü
6. Bölge Müdürlüğü
Yeraltısuları Şube Müdürlüğü

2025 AİLE YILI

Sayı : E-74503738-152.02.02-6411126
Konu : Yeraltısuyu Kullanma Belgesi
(ÖZGÜN-ÖZDEMİR ADİ ORTAKLIĞI)

ÖZGÜN-ÖZDEMİR ADİ ORTAKLIĞI
adına Jeoloji Mühendisi Osman DONBALOĞLU eliyle
Uzunbanı mah. Refik Cesur Blv. No:181/2 Düziçi/OSMANİYE

İlgi : 01.09.2025 tarihli ve 3375349 sayılı dilekçesi.

Hatay ili, Erzin İlçesi Turunçlu mah. bulunan 959 Ada 72 nolu parselde açılmış olan su sondaj kuyusuna ait K-31346 no'lu Yeraltısuyu Kullanma Belgesi ilişikte gönderilmekte olup, istenildiğinde ilgililere gösterilmesi zorunludur.

Bilgilerinizi rica ederim.

Dündar Gazi YILMAZ
Bölge Müdür Yardımcısı

Ek: Kullanma Belgesi,Kuyu Kütüğü ve Su Analiz Raporu (3 Sayfa)

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: 3853EEDF-136B-420F-A0EF-96AFA97D4652 Doğrulama Adresi: https://www.turkiye.gov.tr/devlet-su-isleri-ebys

Adres: Cemalpaşa Mh.Ordu Cd.no:96 01120 Seyhan/ADANA
Telefon : (322) 459 05 90 Belgegeçer (Fax) : (322) 453 27 74
Kep Adresi : dsi.gnlmud@hs01.kep.tr Elektronik Ağ: www.dsi.gov.tr
KEP Adresi : dsi.gnlmud@hs01.kep.tr

Bilgi için:Abdulgani SAMUR
Veri Hazırlama Kontrol
İşletmeni

T.C.
DSİ Genel Müdürlüğü
6. Bölge Müdürlüğü
Yeraltısuları Şube Müdürlüğü

Form No : 2.7.4.
Belge No : K-31346
Belge Tarihi : 10.09.2025
Ebys No :
Tarih :

YERALTISUYU KULLANMA BELGESİ

1. **Belge Sahibi** : ÖZGÜN-ÖZDEMİR ADİ ORTAKLIĞI
   T.C Kimlik No : 13951057696 -Mecidiyeköy V.D-6920804243
   Adresi : Raufbey mah. 9580 sk.No:4 A Blok Daire No:3 Merkez /OSMANİYE
2. **Teknik Sorumlu**
   a) Adı Soyadı : Osman DONBALOĞLU
   b) Mesleği : Jeoloji Mühendisi
   c) Diploma-Oda Sicil No : 05/0013-3269
   d) Adresi : Uzunbanı mah. Refik Cesur Blv. No:181/2 Düziçi/OSMANİYE
3. **Sondör, Kuyucu, Galerici**
   a) Adı Soyadı : İbrahim CÜMA
   b) Mesleği : Sondör
   c) Yeterlik Belge No : 2013-2R-5399
   d) Adresi : Atalan Beldesi Düziçi/OSMANİYE
4. **Kuyu/Galeri Yeri**
   İli : HATAY
   İlçesi : Erzin
   Köy veya Mh : Turunçlu Mah.
   Ada/Parsel - Yüzölçümü : 959/72 64199 m²
   Kuyunun DSİ No.su : A-32863 K-31346 R-55
   Kot/ Koordinatı : 10 m 236401 D – 4091877 K
   Havza Adı : Asi 19 Ova Adı: Dörtyol 19/10
5. **Kuyu/Galeri Verimi**
   Pompajla : 5 l/sn.
   Artezyen : -
   Statik Seviye : 10 m
   Dinamik Seviye (pompajda): 24 m
   Kuyu Derinliği : 72 m
   Çekilecek su miktarı : 144 Ton/ günde ve 51840 Ton/yılda
   Çekilecek suyu temine
   Yetecek enerji miktarı : - kWh
   Sayaç Numarası : -
   Kullanma amacı : SANAYİ (Yangın-Peyzaj-Temizlik) Suyun Sınıfı:T2/A1 EC:630

01.09.2025 tarihli ve 3375349 sayılı dilekçe ile yukarıda yeri belirtilen kuyuyu kullanmak istediğini bildiren ÖZGÜN-ÖZDEMİR ADİ ORTAKLIĞİ'nın müracaatı üzerine yapılan inceleme sonucu, isteğin kanun, tüzük ve yönetmelik hükümlerine uygun olduğu anlaşıldığından, suyun yalnız SANAYİ (Yangın-Peyzaj-Temizlik) amacıyla kullanılması şartıyla bu kullanma belgesi verilmiştir.

6. **Hukuki sorun çıkması halinde belgeniz iptal edilecektir.**

Bülent Gazi YILMAZ
Bölge Müdürü a.
Bölge Müdür Yardımcısı

1- Belge sahibine aittir. Başkasına devredilemez.
2- Kuyu yeri ekli kroki üzerinde gösterilmiştir.
3- Bu belge formda tarif edilen yere ait olup başka yer için kullanılamaz.
4- Alınacak su formda belirtilenden fazla olmaz.
5- Artezyen kuyular, yönetmelikte yazıldığı şekilde tecrit edilir. Basınçlı suyun muhafaza borusu dışından, yüzeye çıkarak bataklık yapmasına veya üst tabakadaki yeraltısuyuna karışarak civar kuyulardan dışarı akmasına ve etrafa zarar vermesine meydan verilmez.
6- Pompaj programı, 3 üncü maddedeki çekilecek su miktarını aşmamak şartıyla, çekimin yılın hangi aylarında veya günün hangi saatlerinde olacağının, kuyu sahibinin isteği ve DSİ'nin müsaadesiyle tespit edilmelidir.
7-Tarafınıza tahsis edilen yıllık su miktarından fazla su çekilmesi ve amacı dışında kullanıldığının tespit edilmesi halinde Kullanma Belgeniz iptal edilecektir.
8-Kuyunun komşu kuyularla münavebeli çalıştırılacağı kuyu sahibi tarafından peşinen kabul edilmiştir.
Not: İş bu Belgeye ait Sondaj kuyusuna OSOS' lu (Uzaktan okumalı ve ön yüklemeli) Su Sayacı takılmıştır.

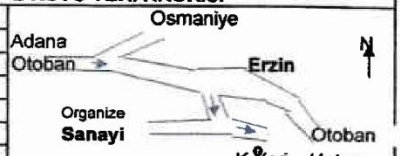
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KUYU KÜTÜĞÜ

A- GENEL DURUM

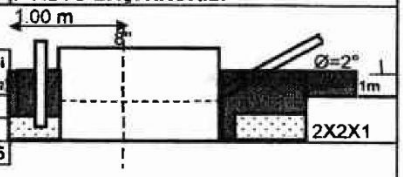
Mevkii	TURUNÇLU
İli	HATAY
İlçesi	ERZİN
Alan	64199.45 m
Köyü	TURUNÇLU MAH.
Koordinatı	236401 E 4091877 N
Kuyu Zemin Rakımı	10 mt.
Açılış Gayesi	SANAYİ
Başlangıç Tarihi	19.08.2025
Bitiş Tarihi	26.08.2025
Arama Belgesi Tarih ve No	08.08.2025 A-32863
Kullanma Belgesi Tarih ve No	

E-KUYU YERİ KROKİSİ



Adana İlinden Erzin İlçesine 5 km kala Sanayi kavşağından çıkılır.Eski Erzin yolundan 1 km gidildiginde Turunçlu mevkiin'de bulunan kuyu yerine ulaşılır.

F-KUYU BAŞI KROKİSİ



B-SU VERİM TECRÜBESİ

Akifer	Metreler Arası	Süre Saat	Ne İle Yapıldığı	Statik Seviye	Dinamik Seviye		Debi (lt/sn)
I							
II							
Müşterek		8	DKT	10.00	24.25		5

C- İNKİŞAF

Ne İle Yapıldığı	Dalgıç Pompa		
Tipi	Açık		
Süresi	4 SAAT		

G-POMPA DURUMU

Tipi	DALGIÇ
Motoru	ELEKTRİKLİ
Çekim	5 Lt/sn

D- AÇAN FİRMA

Adı	TOROS SONDAJ
Makinanın Tipi	ROTARY
Sondaj (mt.)	72.00 mt.
Adres	Düziçi/OSMANİYE

H-MESUL ŞAHISLAR

Meslegi	Adı Soyadı	Dip.N.	İmza
Kuyu Sahibi	Özden-Özdemir Adına:Engin DER		
Teknik Sor	Osman DONBALOĞLU	3269	
Sondör	İbrahim CUMA	5399	

ÖZGÜN ÖZDEMİR ADI ORTAKLIĞI Gayrettepe Mahallesi Gonenoglu Soka... İSTANBUL

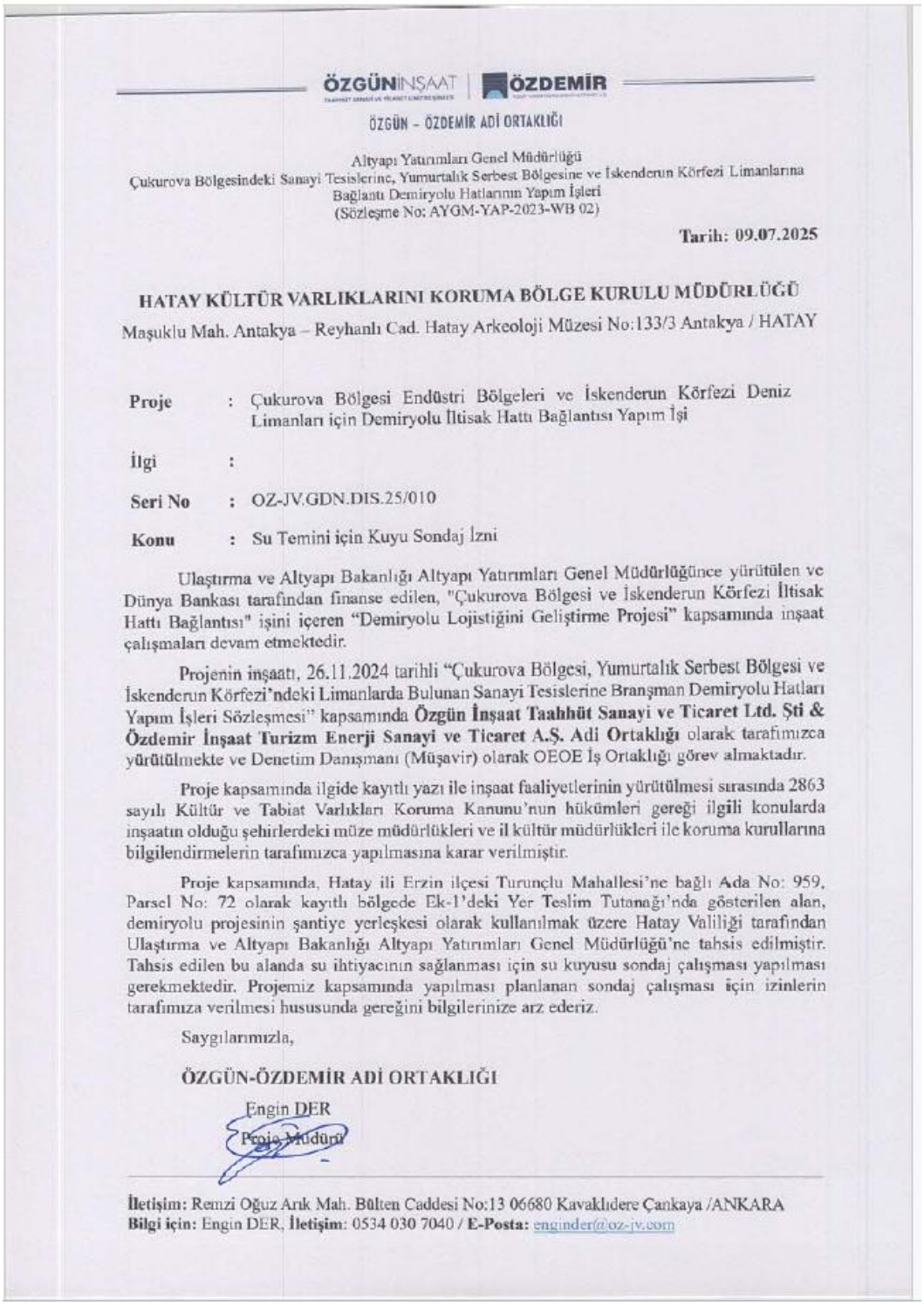
Kuyu Açılışında Karşılaşılan Özellikler	Delik Çapı (İnç)	Techiz Çapı (İnç)	Kuyu Şeması Kesiti	Su Veren Tabakalar	Formasyonun Litolojik Tarifi
Kuyu açılması esnasında zorlukla karşılaşılmadı. 00.00-20.00 mt.8" K 20.00-40.00 mt.8" F 40.00-48.00 mt.8" K 48.00-68.00 mt.8" F 68.00-75.00 mt.8" K	Beton	15 mt.	10 20 30 40 50 60 70 80 90 100 110		0.00-5.00 mt Dolgu.. 5.00-40.00 mt.Dolgu Bazalt.
	$12^{1/2}$	8"			40.00-68.00 mt. Konglomera
		8"			68.00-72.00 mt. Kil.
					KUYU SONU:72 mt.

KONTROL EDİLMİŞTİR 10/09/2025 Salih OYAN Jeofizik Mühendisi

UYGUNDUR 10/09/2025 Ziya BERKKAYA Yeraltısuları Şube Müdürü

Appendix-1.5 Assessment of the Cultural Heritage Attributes of the Construction Camp Site

Appendix-1.5.1



ÖZGÜNİNŞAAT | ÖZDEMİR

ÖZGÜN - ÖZDEMİR ADİ ORTAKLIĞI

Altyapı Yatırımları Genel Müdürlüğü
Çukurova Bölgesindeki Sanayi Tesislerine, Yumurtalık Serbest Bölgesine ve İskenderun Körfezi Limanlarına Bağlantı Demiryolu Hatlarının Yapım İşleri
(Sözleşme No: AYGM-YAP-2023-WB 02)

Tarih: 09.07.2025

HATAY KÜLTÜR VARLIKLARINI KORUMA BÖLGE KURULU MÜDÜRLÜĞÜ

Maşuklu Mah. Antakya – Reyhanlı Cad. Hatay Arkeoloji Müzesi No:133/3 Antakya / HATAY

Proje : Çukurova Bölgesi Endüstri Bölgeleri ve İskenderun Körfezi Deniz Limanları için Demiryolu İltisak Hattı Bağlantısı Yapım İşi

İlgi :

Seri No : OZ-JV.GDN.DIS.25/010

Konu : Su Temini için Kuyu Sondaj İzni

Ulaştırma ve Altyapı Bakanlığı Altyapı Yatırımları Genel Müdürlüğünce yürütülen ve Dünya Bankası tarafından finanse edilen, "Çukurova Bölgesi ve İskenderun Körfezi İltisak Hattı Bağlantısı" işini içeren "Demiryolu Lojistiğini Geliştirme Projesi" kapsamında inşaat çalışmaları devam etmektedir.

Projenin inşaatı, 26.11.2024 tarihli "Çukurova Bölgesi, Yumurtalık Serbest Bölgesi ve İskenderun Körfezi'ndeki Limanlarda Bulunan Sanayi Tesislerine Branşman Demiryolu Hatları Yapım İşleri Sözleşmesi" kapsamında **Özgün İnşaat Taahhüt Sanayi ve Ticaret Ltd. Şti & Özdemir İnşaat Turizm Enerji Sanayi ve Ticaret A.Ş. Adi Ortaklığı** olarak tarafımızca yürütülmekte ve Denetim Danışmanı (Müşavir) olarak OEOE İş Ortaklığı görev almaktadır.

Proje kapsamında ilgide kayıtlı yazı ile inşaat faaliyetlerinin yürütülmesi sırasında 2863 sayılı Kültür ve Tabiat Varlıkları Koruma Kanunu'nun hükümleri gereği ilgili konularda inşaatın olduğu şehirlerdeki müze müdürlükleri ve il kültür müdürlükleri ile koruma kurullarına bilgilendirmelerin tarafımızca yapılmasına karar verilmiştir.

Proje kapsamında, Hatay ili Erzin ilçesi Turunçlu Mahallesi'ne bağlı Ada No: 959, Parsel No: 72 olarak kayıtlı bölgede Ek-1'deki Yer Teslim Tutanağı'nda gösterilen alan, demiryolu projesinin şantiye yerleşkesi olarak kullanılmak üzere Hatay Valiliği tarafından Ulaştırma ve Altyapı Bakanlığı Altyapı Yatırımları Genel Müdürlüğü'ne tahsis edilmiştir. Tahsis edilen bu alanda su ihtiyacının sağlanması için su kuyusu sondaj çalışması yapılması gerekmektedir. Projemiz kapsamında yapılması planlanan sondaj çalışması için izinlerin tarafımıza verilmesi hususunda gereğini bilgilerinize arz ederiz.

Saygılarımızla,

ÖZGÜN-ÖZDEMİR ADİ ORTAKLIĞI

Engin DER
Proje Müdürü

İletişim: Remzi Oğuz Arık Mah. Bülten Caddesi No:13 06680 Kavaklıdere Çankaya /ANKARA
Bilgi için: Engin DER, **İletişim:** 0534 030 7040 / **E-Posta:** enginder@oz-jv.com

ÖZGÜNİNŞAAT | ÖZDEMİR

ÖZGÜN - ÖZDEMİR ADİ ORTAKLIĞI

Altyapı Yatırımları Genel Müdürlüğü
Çukurova Bölgesindeki Sanayi Tesislerine, Yumurtalık Serbest Bölgesine ve İskenderun Körfezi Limanlarına Bağlantı Demiryolu Hatlarının Yapım İşleri
(Sözleşme No: AYGM-YAP-2023-WB 02)

EKLER

Ek-1: Yer Teslim Tutanağı ve ekleri (5 Sayfa)

Ek-2: Ulaştırma ve Altyapı Bakanlığı, Altyapı Yatırımları Genel Müdürlüğü'nün 05 Mart 2025 tarih ve 74525703-755.99-2557642 sayılı yetkilendirme yazısı.

Ek-3: Ulaştırma ve Altyapı Bakanlığı, Strateji Geliştirme Başkanlığı, Yatırım Yönetimi ve Kontrol Daire Başkanlığı'nın 12 Şubat 2025 tarih ve E-92804799-752.01.01-2502950 sayılı Kamu Yararı Kararı (2 Sayfa)

İletişim: Remzi Oğuz Arık Mah. Bülten Caddesi No:13 06680 Kavaklıdere Çankaya /ANKARA
Bilgi için: Engin DER, **İletişim:** 0534 030 7040 / **E-Posta:** enginder@oz-jv.com

Ek-1

YER TESLİM TUTANAĞI

T.C. Ulaştırma ve Altyapı Bakanlığı, Altyapı Yatırımları Genel Müdürlüğü tarafından yürütülmekte olan "*Çukurova Bölgesindeki Sanayi Tesislerine, Yumurtalık Serbest Bölgesine ve İskenderun Körfezi Limanlarına Bağlantı Demiryolu Hatlarının Yapım İşleri*" kapsamında mülkiyeti Hatay Valiliğine ait, Altyapı Yatırımları Genel Müdürlüğüne tahsis edilen Hatay İli, Erzin İlçesi, Turunçlu Mahallesi, 959 Ada, 72 Parselin, Ek-1'deki krokide gösterilen 64.199,45 m^2'lik kısmının proje süresince barınma, ofis alanı ve beton santrali olarak, geçici kullanılması amacıyla Ek-2 yazı ile yer tesliminin yapılması istenmiştir.

Söz konusu parselde Ek-1'deki krokide gösterilen alan 28./05/2025 tarihinde teslim edilmiştir/ alınmıştır. (Kullanım süresince, diğer olası yasal izinlerin alınması gerekmektedir.)

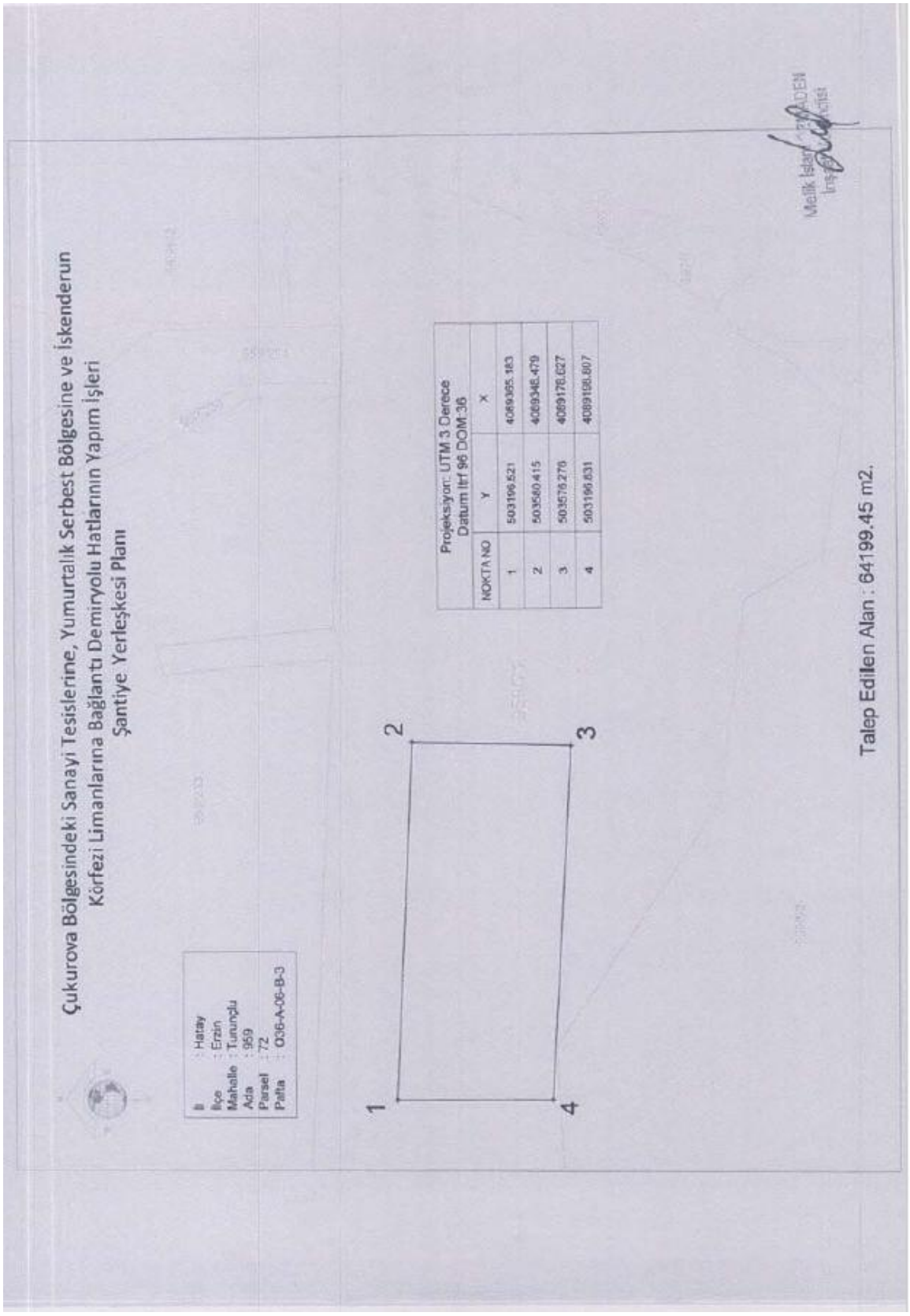
Teslim Eden	Teslim Alan
Ekrem ÖZER Şube Müdürü	Melik İslam ÖZMADEN İnşaat Mühendisi

Ek-1: Şantiye yerleşkesi olarak kullanılacak alanın koordinatlı planı,

Ek-2a: T.C. Ulaştırma ve Altyapı Bakanlığı, Altyapı Yatırımları Genel Müdürlüğü'nün 16.05.2025 tarih ve E-74525703-755.99-2733205 sayılı yazısı.

Ek-2b: Hatay Valiliği, Yatırım İzleme ve Koordinasyon Başkanlığı'nın 20.05.2025 tarih ve E- 77068767-000-209636 sayılı yazısı.

Ek-2c: T.C. Ulaştırma ve Altyapı Bakanlığı, Altyapı Yatırımları Genel Müdürlüğü'nün 26.05.2025 tarih ve E-74525703-755.99-2755318 sayılı yazısı.



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T.C.
ULAŞTIRMA VE ALTYAPI BAKANLIĞI
Altyapı Yatırımları Genel Müdürlüğü

2025 AİLE YILI

Sayı : E-74525703-755.99-2733205 16.05.2025
Konu : Şantiye Alanı Tahsis Talebi Hk.

HATAY VALİLİĞİNE

İlgi : Özgün İnşaat Taahhüt Sanayi ve Ticaret Ltd. Şti &Özdemir İnşaat Turizm Enerji Sanayi ve Ticaret A.Ş. Adi Ortaklığı'nın 15.05.2025 tarihli ve 25/046 sayılı yazısı.

Genel Müdürlüğümüz uhdesinde bulunan "Çukurova Bölgesi Sanayi Tesislerine, Yumurtalık Serbest Bölgesi'ne ve İskenderun Körfezi'ndeki Limanlara Bağlantı Demiryolu Hatlar İnşaatı" kapsamında, ilgi yazıda belirtilen Şantiye Alanlarından Alternatif-1 ve Altrenatif-2'den uygun olanının projede kullanılması planlanmaktadır.

Konuya ilişkin yazımız ekinde bulunan söz konusu Şantiye alanlarından Valiliğinizce uygun görülen alanın proje sürecinde Genel Müdürlüğümüz adına tahsis edilmesi hususunda bilgilerinizi ve gereğini rica ederim.

Enver MAMUR
Bakan a.
Genel Müdür Yardımcısı

Ek: Planlanan Şantiye Alanı (EBYS)

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: 5D970043-6758-4C9D-893D-7F1494A7540E Doğrulama Adresi: https://www.turkiye.gov.tr/uab-ebys
Hakkı Turaylıç Caddesi No:5 06338 Emek / Çankaya / ANKARA
KEP Adresi : uabiaths01.kep.tr
Bilgi için: İbrahim ÜNAL
İnşaat Mühendisi

T.C.
HATAY VALİLİĞİ
Yatırım İzleme ve Koordinasyon Başkanlığı

2025 AİLE YILI

Sayı : E-77068767-000-209636
Konu : Şantiye Alanı Tahsis Talebi Hk.

20.05.2025

DAĞITIM YERLERİNE

İlgi : 16.05.2025 tarihli ve E-74525703-755.99-2733205 sayılı yazınız.

Çukurova Bölgesi Sanayi Tesislerine, Yumurtalık Serbest Bölgesi'ne ve İskenderun Körfezi'ndeki Limanlara Bağlantı Demiryolu Hatlar İnşaatı" kapsamında, ilgi yazıda belirtilen Şantiye Alanlarından Alternatif-1 ve Altrenatif-2'den uygun olanının projede kullanılması istenilmiştir.

Söz konusu ilgi sayılı yazı ekinde belirtilen 1. nolu alternatif alanın şantiye alanı olarak kullanılmasında Başkanlığımızca herhangi bir sakınca bulunmamaktadır.

Gereğini arz ve rica ederim.

Abdullah AKDAŞ
Antakya Kaymakamı
YİKOB Başkanı

Dağıtım:
Gereği:
T.c. Ulaştırma ve Altyapı Bakanlığı
(Altyapı Yatırımları Genel Müdürlüğü)

Bilgi:
Erzin Kaymakamlığına
Erzin Kaymakamlığı
(Milli Emlak Şefliğine)

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: 3WOC7w-q2t18c-Dn6mOU-8g4+Iw-BmnDLuFj Doğrulama Linki: https://www.turkiye.gov.tr/icisleri-ebys

Maşuklu Mahallesi Antakya Reyhanlı Caddesi No 137 Antakya Hatay
Telefon No: (326)214 21 16 Dahili: 1050 Faks No: (326)214 03 30
e-Posta: ekrem.ozel1@icisleri.gov.tr İnternet Adresi: https://www.hatayyikob.gov.tr
Kep Adresi: icisleribakanligi@hs01.kep.tr

Bilgi için: Bestami ÇOLAK
Memur
Telefon No:

T.C.
ULAŞTIRMA VE ALTYAPI BAKANLIĞI
Altyapı Yatırımları Genel Müdürlüğü

2025 AİLE YILI

Sayı : E-74525703-755.99-2755318
Konu : Şantiye Alanı Tahsis Talebi

26.05.2025

HATAY VALİLİĞİNE
(Yatırım İzleme ve Koordinasyon Başkanlığı)

İlgi : a) 16.05.2025 tarihli ve E74525703-755.99-2733205 sayılı yazımız.
b) 20.05.2025 tarihli ve E-77068767-000-209636 sayılı yazınız.

İlgi (a) yazımızda Genel Müdürlüğümüz tarafından yürütülmekte olan "Çukurova Bölgesi Endüstri Bölgeleri ve İskenderun Körfezi Deniz Limanları için Demiryolu İltisak Hattı Bağlantısı Yapım İşi" kapsamında şantiye alanı olarak kullanılması planlanan alanlar Alternatif-1 ve Altrenatif-2 olarak tarafınıza sunularak tarafınızca uygun görülen alanın proje sürecinde Genel Müdürlüğümüz adına tahsis edilmesi talep edilmiş olup ilgi (b) yazınızda 1 numaralı alternatifin şantiye alanı olarak kullanılmasında herhangi bir sakınca bulunmadığı belirtilmiştir.

Bu kapsamda söz konusu alanın tesliminin yapılması için tarafınızla yer teslim tutanağı düzenlemek üzere Genel Müdürlüğümüz personeli UB11185 sicil numaralı Melik İslam ÖZMADEN görevlendirilmiştir.

Bilgilerinizi ve gereğini rica ederim.

Enver MAMUR
Bakan a.
Genel Müdür Yardımcısı

Bu belge, güvenli elektronik imza ile imzalanmıştır.
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Hakkı Turaylıç Caddesi No:5 06338 Emek / Çankaya / ANKARA
KEP Adresi : uab@hs01.kep.tr
Bilgi için Melik İslam ÖZMADEN Mühendis

Ek-2

T.C.
ULAŞTIRMA VE ALTYAPI BAKANLIĞI
Altyapı Yatırımları Genel Müdürlüğü

2025 AİLE YILI

Sayı : 74525703-755.99-2557642
Konu : "Çukurova Bölgesi Endüstri Bölgeleri ve İskenderun Körfezi Deniz Limanları için Demiryolu İltisak Hattı Bağlantısı Yapım İşi" Kapsamında Yetkilendirme

05 Mart 2025

İLGİLİ MAKAMA

"Çukurova Bölgesi Endüstri Bölgeleri ve İskenderun Körfezi Deniz Limanları için Demiryolu İltisak Hattı Bağlantısı Yapım İşi" kapsamında "Özgün İnşaat Taahhüt Sanayi ve Ticaret Ltd. Şti & Özdemir İnşaat Turizm Enerji Sanayi ve Ticaret A.Ş. Adi Ortaklığı" ile 26.11.2024 tarihinde yapım sözleşmesi imzalanmıştır.

Bu çerçevede söz konusu projeye ilişkin çalışmaların yürütülmesi sürecinde; ilgili kamu kurum ve kuruluşları ve bölge müdürlükleri, il müdürlükleri, taşra teşkilatları ve belediye başkanlıkları vb. ile gerekli görüşmelerin yapılması, teknik bilgi ve belgelerin temin edilmesi, gerekli izin/lisans süreçlerinin takip edilmesi vb. konularda **"Özgün İnşaat Taahhüt Sanayi ve Ticaret Ltd. Şti & Özdemir İnşaat Turizm Enerji Sanayi ve Ticaret A.Ş. Adi Ortaklığı"** yetkili kılınmıştır.

Bilgilerinizi ve gereğini arz/rica ederim.

Enver MAMUR
Bakan a.
Genel Müdür Yardımcısı

Doğrulama Kodu: 5B252AAB-A73F-4A7E-A38D-6C2FD7FFF214
Doğrulama Adresi: https://www.turkiye.gov.tr/uab-ebys
Hakkı Turaylıç Caddesi No:5 06338 Emek / Çankaya / ANKARA
KEP Adresi : uab@hs01.kep.tr
Bilgi için:Melik İslam
ÖZMADEN
Mühendis

EK-3

T.C.
ULAŞTIRMA VE ALTYAPI BAKANLIĞI
Strateji Geliştirme Başkanlığı
Yatırım Yönetimi ve Kontrol Daire Başkanlığı

Sayı : E-92804799-752.01.01-2502950 12.02.2025
Konu : Kamu Yararı Kararı (Çukurova Bölgesi ve İskenderun Körfezi İltisak Hattı)

BAKANLIK MAKAMINA

İlgi : Altyapı Yatırımları Genel Müdürlüğünün 03.02.2025 tarihli ve 2248052 sayılı yazısı.

Altyapı Yatırımları Genel Müdürlüğü'nün ilgide kayıtlı yazısında, yapımı planlanan ve 2024 yılı yatırım programında 2020E01-149142 proje numarası ile kayıtlı "Çukurova Bölgesi ve İskenderun Körfezi İltisak Hattı Projesi" sahasına tesadüf eden özel mülkiyete konu taşınmazların kamulaştırma işlemine tabi tutulacağı ifade edilmektedir.

Bu kapsamda; gerekli olan kamulaştırmanın yapılması için 2942 sayılı Kamulaştırma Kanununun onay mercii başlıklı 6.maddesi (g) bendinin "Kamu kurumları yönetim kurulu veya idare meclisleri veya yetkili idare organları kararları, denetimine bağlı oldukları bakanın onayı ile tamamlanır." hükmü gereğince; Altyapı Yatırımları Genel Müdürlüğünce onaylanan ve ekli planlarda gösterilen taşınmazların ve mütemmimlerinin kamulaştırılmasında Kamu Yararı Kararı bulunduğu hususunu olurlarınıza arz ederim.

Mücahit ARMAN
Strateji Geliştirme Başkanı

Uygun görüşle arz ederim.
Enver İSKURT
Bakan Yardımcısı

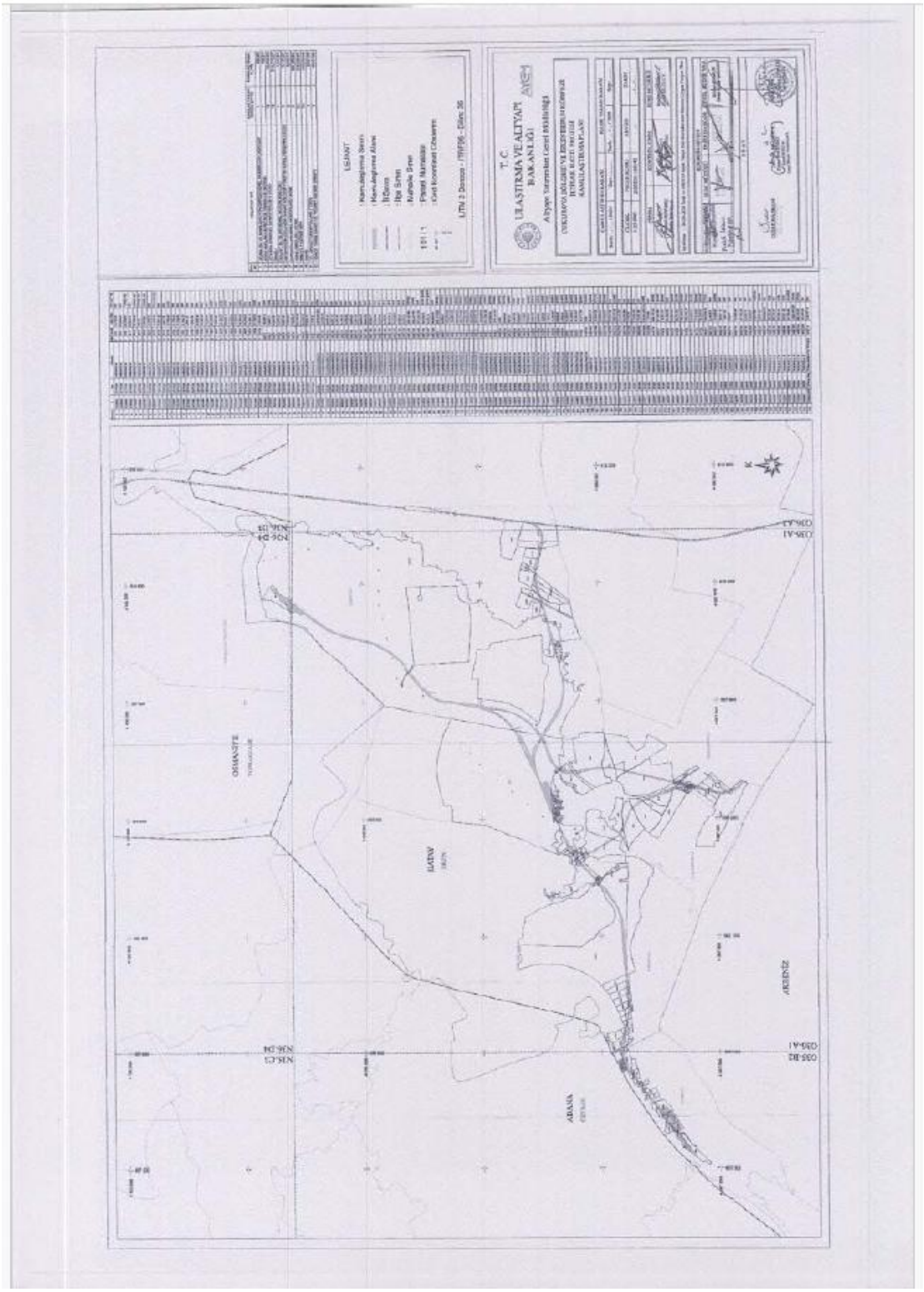
OLUR
Abdulkadir URALOĞLU
Bakan

Ek:
1 - Planlar
2 - Bilgi Notu

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Hakkı Turayliç Caddesi No:5 06338 Emek / Çankaya / ANKARA
Telefon No: (0 312) 203 10 00 Faks No: (0 312) 203 13 86
e-Posta: yatirimyonetimi.sgb@uab.gov.tr İnternet Adresi: www.uab.gov.tr
KEP Adresi : uab@hs01.kep.tr

Bilgi için:Puyidar ÖNAL
İstatistikçi
Telefon No:(312) 203 13 55
E-Posta:
mpuyidar.onal@udhb.gov.tr



Appendix-1.5.2

KÜLTÜR VE TURİZM BAKANLIĞI
Kültür Varlıkları ve Müzeler Genel Müdürlüğü
Hatay Kültür Varlıklarını Koruma Bölge Kurulu Müdürlüğü

2025 AİLE YILI

Sayı : E-85020971-169.99-7027468 18.07.2025

Konu : Hatay İli, Erzin İlçesi, Turunçlu Mahallesi 959 ada 72 parselde Sondaj Kuyusu Açma İzin Talebi Hk.(31.09.244)

ÖZGÜN-ÖZDEMİR ADİ ORTAKLIĞINA
Remzi Oğuz Arık Mah. Bülten Cad. No:13 Kavaklıdere ÇANKAYA / ANKARA

İlgi : 10.07.2025 tarihli yazınız.

Hatay İli, Erzin İlçesi, Turunçlu Mahallesinde 959 ada 72 nolu parselde ekte belirtilen koordinatları verilen alanın mevcutta herhangi bir arkeolojik sit ve korunması gerekli taşınmaz kültür varlığı olup olmadığına dair arşiv incelemesi yapılarak su kuyusu sondaj çalışması yapılması için kurum görüşü talep edilen ilgi başvurunuz incelenmiştir.

Müdürlüğümüz arşivinde yapılan incelemede; Hatay İli, Erzin İlçesi, Turunçlu Mahallesinde 959 ada 72 parselde yer alan ekte belirtilen koordinatları verilen 64.199,45 m^2 yüzölçümlü alan üzerinde 2863 sayılı Kanun kapsamında kalan herhangi bir tespitli veya tescilli taşınmaz kültür varlığı bilgisine rastlanılmamış olup, 959 ada 72 parselin bir kısmının Adana Kültür ve Tabiat Varlıklarını Koruma Bölge Kurulunun 22.03.2007 tarih ve 2489 sayılı kararı ile Burnaz Adsız Harabeleri 1.Derece Arkeolojik Sit alanına girdiği ancak ilgi başvuru ekinde yer alan koordinatlı krokide belirtilen alanda herhangi bir taşınmaz kültür varlığına rastlanılmadığından sondaj kuyusu izinlerinin verilmesinde 2863 sayılı Kanun kapsamında bir sakınca bulunmamakta, ancak ülkemizde ve bölgemizde 2863 sayılı Kanun kapsamında olan kültür varlıkları ile sit alanlarının tespit-tescil çalışmaları sürdürüldüğünden yapılacak çalışmalar sırasında herhangi bir kültür varlığına rastlanılması halinde 2863 sayılı Kanunun 4'üncü Maddesi "...Taşınır ve taşınmaz kültür ve tabiat varlıklarını bulanlar, malik oldukları veya kullandıkları arazinin içinde kültür ve tabiat varlığı bulunduğunu bilenler veya yeni haberdar olan malik ve zilyetler, bunu en geç üç gün içinde en yakın müze müdürlüğüne veya köyde muhtara veya diğer yerlerde mülki idare amirlerine bildirmeye mecburdurlar. Bu gibi varlıklar, askeri garnizonlar ve yasak bölgeler içinde bulunursa, usulüne uygun olarak üst komutanlıklara bildirilir. Böyle bir ihbarı alan muhtar, mülki amir veya bu gibi varlıklardan doğrudan doğruya haberdar olan ilgili makamlar, bunların muhafaza ve güvenlikleri için gerekli tedbirleri alırlar. Muhtar, aynı gün alınan tedbirlerle birlikte durumu en yakın mülki amire; mülki amir ve diğer makamlar ise on gün içinde, yazı ile Kültür ve Turizm Bakanlığına ve en yakın müze müdürlüğüne bildirir. İhbar alan Bakanlık ve müze müdürü bu Kanun hükümlerine göre, en kısa zamanda gerekli işlemleri yapar." hükmü gereğince çalışmaların derhal durdurularak en yakın Mülki İdare Amirliğine ya da Hatay Müze Müdürlüğüne haber verilmesi gerektiği hususunda;

Bilgilerinizi ve gereğini rica ederim.

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Maşuklu Mah. Atatürk Cad. No:1 Antakya/HATAY
Tel:0326 225 0032 Faks:0326 225 0033
KEP Adresi : kulturveturizmbakanligi@hs01.kep.tr

Bilgi için:Arzu KARADAĞ
Sözleşmeli Müze Araştırmacısı

Türkiye

1/2

Mahmut AYDIN
Koruma Bölge Kurulu Müdürü

Bu belge, güvenli elektronik imza ile imzalanmıştır.
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Maşuklu Mah. Atatürk Cad. No:1 Antakya/HATAY
Tel:0326 225 0032 Faks:0326 225 0033
KEP Adresi : kulturveturizmbakanligi@hs01.kep.tr
Bilgi için:Arzu KARADAĞ
Sözleşmeli Müze Araştırmacısı

2 / 2

Appendix-2 Construction Camp Site Biodiversity Assessment Report

Link:

https://docs.google.com/document/d/1oCP_q6wzrf7etIXYrPUiF9hLJlh9VlVB/edit?usp=drive_link&ouid=111170889080040202929&rtpof=true&sd=true

Appendix-3 Environmental Baseline Measurement Reports

Link:

https://drive.google.com/drive/folders/1egdsUac9Z-CmD3hcgbIqjlUgaGUP2NdO?usp=drive_link

Appendix-4 Social Studies

Link:

https://drive.google.com/drive/folders/1S0WFBt6LOFvv_Cz5e9XC9BkZjyHAxwSb?usp=drive_link