T.C. ÇEVRE, ŞEHİRCİLİK VE İKLİM DEĞİŞİKLİĞİ BAKANLIĞI

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Republic of Turkey

Ministry of Environment, Urbanization and Climate Change

General Directorate of Construction Affairs

TÜRKİYE EARTHQUAKE RECOVERY AND RECONSTRUCTION PROJECT

(TERRP)

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This Environmental and Social Management Plan is developed by the Koltek Consulting Company within the scope of "Consultancy Services for Design Review and Reconstruction Supervision of Rural Housing (Ref: TERRP/CS-DESSUP-01)" under Türkiye Earthquake Recovery and Reconstruction Project.

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ABBREVIATIONS AND ACRONYMS

AFAD	Disaster and Emergency Management Presidency
AoI	Area of Influence
WB	World Bank
C-ESMP	Contractor Environmental and Social Management Plan
DSI	State Hydraulic Works
E&S	Environmental and Social
ESHS	Environmental, Social, Health and Safety
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
GBVH	Gender Based Violence and Harassment
GDCA	General Directorate of Construction Affairs
GRM	Grievance Redress Mechanism
Koltek	Koltek Consulting Company
LMP	Labor Management Procedure/Plan
MoEUCC	Ministry of Environment, Urbanization and Climate Change
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
PPE	Personal Protective Equipment
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
TERRP	Türkiye Earthquake Recovery and Reconstruction Project
TMP	Traffic Management Plan
WMP	Waste Management Plan
WWTP	Wastewater Treatment Plant

1 INTRODUCTION

The World Bank (WB) is supporting the Ministry of Environment, Urbanization and Climate Change (MoEUCC) in implementing the Türkiye Earthquake Recovery and Reconstruction Project (TERRP). The general aim of TERRP is to provide access to municipal and health services as well as earthquake-resistant new rural housing in selected provinces affected by the February 2023 earthquake in Türkiye. The MoEUCC is implementing the Project activities for Component 3; Rural Housing Reconstruction and Recovery, and Component 4.3; Project Management, Monitoring and Evaluation in close collaboration with the Disaster and Emergency Management Presidency (AFAD).

Under the scope of Component 3 Rural Housing Reconstruction and Improvement of TERRP, 68 houses in the Tatlar (Yeni) neighbourhood of Nurhak District, Kahramanmaraş province, will be constructed in the new settlement area. 146/206 parcel located in Tatlar (Yeni) Neighborhood was identified as the sub-project area.. The destroyed or severely damaged houses and basic infrastructures in the selected neighbourhoods will be reconstructed in this new settlement location. This Environmental and Social Management Plan (ESMP) includes measures to avoid, minimize and mitigate potential adverse environmental and social impacts during the sub-project implementation. The measures also include health and safety measures, stakeholder engagement activities to be carried out, and the establishment of a Grievance Redress Mechanism (GRM). Finally, the ESMP outlines the responsibilities of relevant parties within the sub-project scope.

2 THE RATIONALE OF THE ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

Following the Environmental and Social Management Framework (ESMF) of the TERRP, the Project Implementation Unit (PIU) under the MoEUCC General Directorate of Construction Affairs (GDCA) has completed the Environmental and Social (E&S) Screening and the E&S Risk Rating was assessed as "Moderate" based on the anticipated E&S risks and impacts. Referring to the ESMF, based on the E&S screening and subsequent assessment, the project-level ESMP needed to be customized for the subproject namely Kahramanmaraş Nurhak Tatlar (Yeni) Rural Housing Project.

Koltek Consulting Company (Koltek) under its assignment "Consultancy Services for Design Review and Reconstruction Supervision of Rural Housing" with the name of the supervision consultant took the responsibility to customize the ESMP for the subproject. In the course of the customization, Koltek visited the subproject site before preparing ESMP having meetings with the contractor and Tatlar (Yeni) Neighbourhood Mukhtar for an effective ESMP. Koltek has also used the ESMP format given in the ESMF Annex 4 as guidance.

This ESMP includes site-specific measures whereas developed limited to the available information. In the course of the planning and construction, there could be revisions in the methods of the construction due to feasibility and technical concerns. In such changes in the Contractor's way of construction, the ESMP shall be reviewed and revised by the Contractor and then submitted to Koltek for review. The Waste Management Plan, Pollution Prevention Plan, OHS Plan, Community Health, Safety and Traffic Management Plan, Water Supply and Wastewater Management Plan etc., will be prepared also by the Contractor and submitted to the PIU for approval by Koltek after including their review. The Contractor shall take due care to reflect the site conditions to the ESMP and require to be proactive in its planning and reflecting the revisions into this ESMP. The Contractor shall not start construction until all documents are approved by the PIU.

3 LEGAL AND INSTITUTIONAL FRAMEWORK

The legal and institutional framework for TERRP is comprehensively presented under Section 3 of the TERRP's ESMF. ESMF Section 3 indicates the legal framework of Türkiye followed by a brief explanation of the national environmental and social assessment regulatory process including permitting and defines gaps between the WB Environmental and Social Standards (ESS) and legislative requirements.

While developing the ESMP, both the ESSs and the legislative framework concerning the subproject-related activities are considered, and feasible and effective measures are recorded.

The ESMF for the Project (both English and Turkish) can be found at the following website: https://webdosya.csb.gov.tr/db/kadiyap_en/meu

4 PROJECT DESCRIPTION

The destroyed and heavily damaged houses in the Tatlar (Yeni) Neighborhood of Nurhak District of Kahramamaraş will be rebuilt in the newly determined settlement area, a total of 68 rural houses are planned to be constructed within the scope of this part of the TERR Project. Besides, within the scope of the project, it is planned to build roads and pavements, install street lighting, establish a water network, and sewerage infrastructure, and build impermeable septic tanks. The determined new settlement area is a total of 12,111,130.60 m², which is land belonging to the Treasury, and 213,245.54 m² of this area will be used within the scope of the sub-project on parcel 146/206. In other words, 2% of the area allocated by AFAD will be used for the new settlement. The satellite view of the location is given below in **Figure 1: Google Earth View of the Rural Housing Subproject Parcel 146/206**1,

and **Hata! Başvuru kaynağı bulunamadı.** Field photographs are presented in Annex 2: Photographs

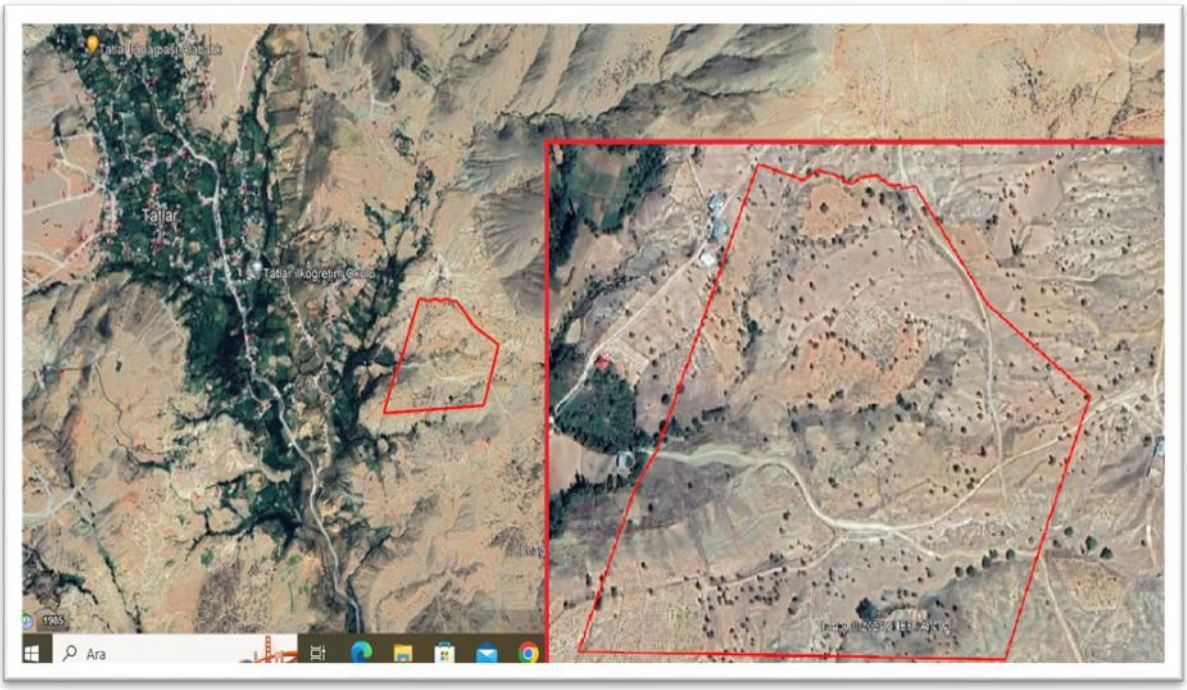

Figure 1: Google Earth View of the Rural Housing Subproject Parcel 146/206

Figure 2: Satellite image of the current residential area of Tatlar District

Figure 3: Satellite general image for parcel 146/206

The parcel and the construction site as well as the close dwellings and facilities are shown in Tablo 1:

Settlements Close to the Selected Parcel

Dwellings/Facilities /Features	Air Distance (m)
Dwelling-1	300
Dwelling -2	430
Dwelling -3	320

Dwellings/Facilities /Features	Air Distance (m)
Dwelling -4	270
Dwelling -5	450
Dwelling -6	530
Dwelling -7	430
Dwelling -8	380
Cemetery	150
Barn-1	430
Barn-2	490
Barn-3	370
Agricultural Land	230
Vineyard	30-300

The distance of the rural housing area of the sub-project to the nearest settlement is 1.45 km (as the crow flies) as can be seen in Figure 5.

and the distances to the close dwellings and other facilities and features are given in **Hata! Başvuru kaynağı bulunamadı.**

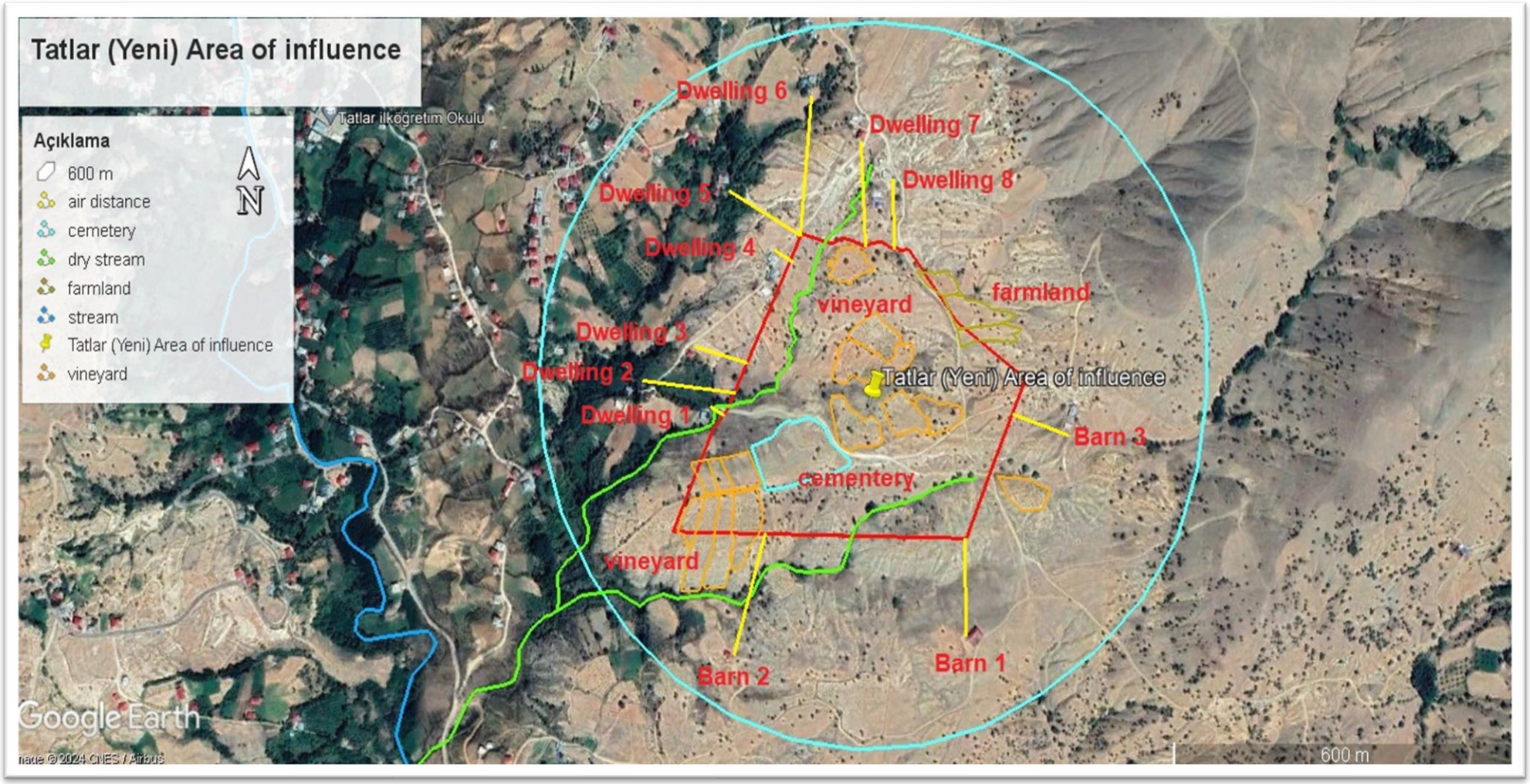

Figure 4: Area of Influence (AoI)

Tablo 1: Settlements Close to the Selected Parcel

Dwellings/Facilities /Features	Air Distance (m)
Dwelling-1	300
Dwelling -2	430
Dwelling -3	320
Dwelling -4	270
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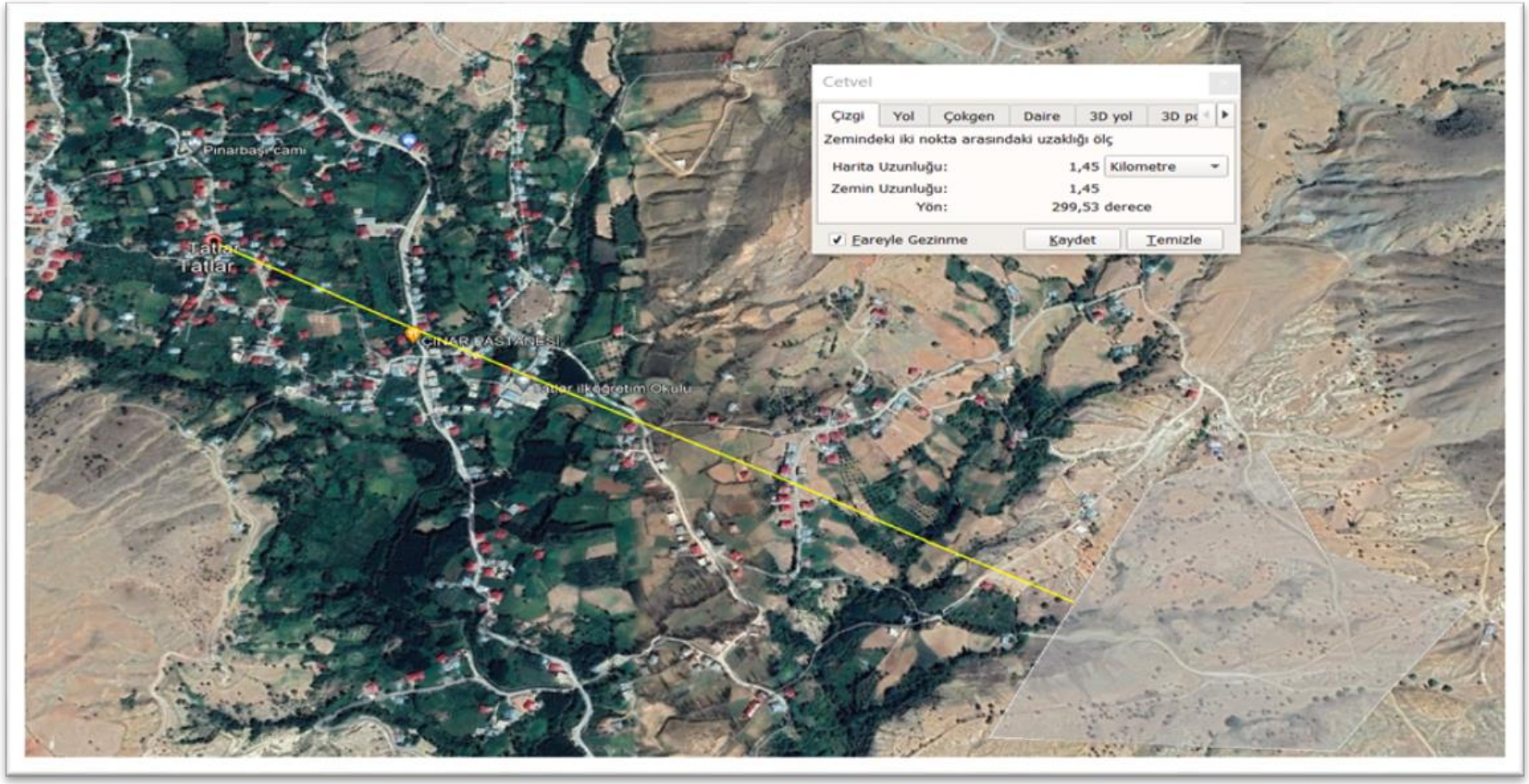

Figure 5: The distance of the parcel to the nearest settlement.

4.1 Project Characteristics

The features regarding the houses to be constructed and the awarded Contractor are listed as follows:

- The rural houses to be constructed will be 213.245,54 m2. The rural houses will be steel with 3 bedrooms with a 14,04 m2 veranda.The duration of construction is 180 days.
- Settlement plans for each new location have been approved by MoEUCC; however, they might be revised, if deemed necessary.
- There will not be any construction of a concrete plant within the scope of the Project. The concrete needed for the construction of the rural houses will be procured from the nearest licensed facility.
- Wastewater will be collected in the impermeable septic tanks in both the work site and resettlement area.

The more detailed information related to the subproject is given in Screening Form in Annex 4.

5 INFORMATION ACTIVITIES AND PUBLIC PARTICIPATION FOR ESMP

This section will be prepared after the public participation meeting.

6 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

The table below represents the customized Environmental and Social Management Plan (ESMP), outlining the necessary measures for the Contractor to adhere to during the sub-project activities. This plan encompasses anticipated environmental and social risks and effects specific to the sub-project, along with recommended mitigation measures. It details the stages where these risks/effects are expected to occur, indicators within the monitoring system, frequency, responsibilities, and estimated costs. This ESMP comprehensively defines the strategies to address these risks/effects throughout the project timeline.

The implementation of the specified measures, the Contractor's execution system, the Contractor's organizational structure, site-specific E&S management plans, their effectiveness, and the monitoring plan to be implemented by the Contractor will be monitored by Koltek. The Contractor will be subject to oversight to establish an effective system for managing and monitoring E&S matters related to sub-project activities.

Table 1: Environmental and Social Management Plan

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
General for All Construction Works										
Environmental and Social (E&S) Management: Inadequate management of the environmental and social risks and impacts of the subproject	The Contractor's Environmental and Social Management Plan (C-ESMP) will be prepared, submitted for approval, and then implemented. C-ESMP will be submitted before the commencement of construction works, and no construction activity will take place within the scope of the sub-project until the C-ESMP is approved. The C-ESMP will include, at least the following site-specific management plans: • Occupational Health and Safety (OHS) Plan including risk assessment report and emergency response plan (Refer to the draft in TERRP ESMF Annex-10) • Community Health, Safety and Traffic Management Plan (Refer to the outlines in TERRP ESMF Annex-11) • Hazardous Material Management Plan, if needed • Waste Management Plan (Refer to TERRP ESMF Annex-8) • Pollution Prevention Plan (Refer to the outlines in TERRP ESMF Annex-12) • Water Supply and Wastewater Management Plan • Labour Management Plan (LMP) (To be prepared in accordance with TERRP's LMP) •	X	X		All site-specific management plans are approved prior to construction and implemented throughout the construction period. Montly E&S Progress Report		X		Contractor (implementation) Supervision Consultant (audit) and Report Preparation	Within the cost of construction
	At least one full-time Class A/B OHS Specialist, one full-time Environmental Specialist and one full-time Social Specialist are employed before starting construction work. The contractor is obliged to obtain approval by submitting resumes of specialists. It is imperative that these specialists are present on-site during the	X	X		Relevant E&S personnel are provided and maintained throughout the construction		X		Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	construction period.				period.					
	A training program is prepared by the Contractor and all employees are trained on the main environmental, social, health and safety (ESSG) risks and workers' responsibilities associated with such construction works before they start working on site. The training program is repeated monthly. The Contractor's monthly training program also covers issues related to the Code of Conduct, such as sexual harassment, sexual and/or gender-based violence, especially against women and children, and respectful attitude in interacting with the local community.	X	X		Environmental and social training program is approved and implemented according to schedule and documented. GBVH training program is implemented and documented		X		Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction
	All necessary permits (Land Use Permit, Waste Disposal Permit / Protocol from the Municipality, Environmental Permit, Water Use Permit from the State Hydraulic Works, Electricity Connection and Use Permit, Excavation waste disposal protocols with Municipalities, etc.) will be obtained and the installation of facilities will be ensured prior to construction.	X			Permissions and relevant official letter	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

Air quality: Dust generation around the sub-project site due to construction activities and emissions from construction equipment and vehicles	During the dry season, dust in exposed work areas will be minimized by regularly spraying the ground with water. Construction debris will be kept in a controlled area and sprayed with water to reduce dust. The surrounding environment such as roads, etc. will be kept free of debris to minimize dust. Aggregate materials will be kept covered to prevent fine soil particles from being suspended or dispersed in the air as a result of wind blowing or dispersing by stray animals. In the case of pneumatic drilling during excavation, the dust will be suppressed by continuous water spraying and/or construction dust curtain housings on site if required. Its paths will be cleared of excavation to minimize dust. Tatlar (Yeni) parcel 146/206 the region where the rural houses are to be built is a region with strong winds. Due to its geographical location and structure, there are 3-4 times a year when this occurs. During the construction phase, if there is a wind problem in this region, irrigation will be done with a watering vehicle at least 3-4 times a day to prevent dust and sedimentation formation. Where stabilized roads are used, they will be reinforced with a stabilizing layer where necessary. Open burning of construction/waste materials on site will be avoided. The operating hours of generators/machines/equipment/vehicles will be appropriately reduced. The traffic routes to be used in the Traffic Management Plan are shown and drivers and operators will be trained accordingly. Vehicles shall not be loaded beyond their capacity. Vehicles will be kept within the area. New and well-maintained vehicles will be used to control gas emissions that will occur within the scope of the activity. All vehicles and all work machines to be used will have exhaust emission permits and all vehicles will be regularly maintained or inspected. Unnecessary use of machinery and equipment that causes emissions is prevented.		X		Visual inspection of air quality control measures Records of maintenance Records of complaints	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

	Trucks carrying materials will be covered to reduce dust emissions. When passing through public areas is unavoidable, vehicle speed will be kept under control to minimize dust distribution resulting from vehicle transportation. While the speed limit in the project area is 30 km/h, it will be 50 km/h in the city. Tires of trucks operating in the construction site will be washed before leaving the area (street). In case of grievances about dust formation from nearby devices, 24-hour dust measurements are performed by an authorized laboratory. If the measured levels are above limit values, mitigating measures will be developed in this context; For example, wetting/irrigation activities are increased, non-toxic chemicals will be applied, and the speed of vehicles will be controlled.										

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
Noise: Noise generation from construction vehicles and equipment	Construction will be limited to certain deadlines defined in national legislation, and activities will be planned in consultation with nearby communities. Thus, the noisiest activities will be carried out during periods that cause the least disturbance. During operation, the engine covers of generators, air compressors and other electrical-mechanical equipment will be closed. Equipment will be placed as far away from residential/community areas as possible. Maintenance procedures ensure that all equipment and machinery are in good working order, and acoustic enclosures will be placed around generators to reduce noise levels. Noise control methods such as fences, barriers or deflectors (such as muffling devices for combustion engines or planting fast-growing trees) will be used when possible. Unnecessary use of alarms, horns and sirens will be avoided. Project-related transportation through public areas will be minimized. The area of Tatlar (Yeni), where the construction and operations will take place on plot 146/206, is higher than the main settlement of Tatlar. There are trees here and there as a natural buffer between the two areas, as can be seen in the attached photos. This buffer zone between the project area and residential areas (such as open spaces, tree rows or vegetation) is maintained to reduce the impact of noise on living areas.In cases where traffic needs to be limited in residential areas at night; Traffic flow is ensured only through designated routes, and in case of night work, the necessary permits will be ensured. All employees will be trained to follow precautions and best practices. In case of complaints about noise from the nearest receptors, noise measurements will be made by the authorized laboratory. If the measured levels are above the limit values,		X		Visual inspection of noise control measures Equipment and machinery maintenance records Complaint records Measurement results	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	mitigation measures will be developed in this context; For example, acoustic barriers will be installed for mechanical equipment, working hours will be limited for certain pieces of equipment or operations, etc.									
Occupational Health and Safety: OHS-related risks arising from unsafe practices and hazards such as working at height, rotating and moving equipment, electrical safety, working with hazardous substances, etc.	When planning activities, the following steps will be considered with OHS specialist to avoid people getting injured: the hazards associated with construction activities and how they can be avoided, The skills of the personnel involved and their suitability to carry out the work adequately, the use of work equipment and machinery and their adequacy to eliminate the risks associated with the work, electrical safety will be taken into account by evaluating other risks High-risk activities will be avoided as much as possible, and the control hierarchy method will be used for identified risks. A proper risk assessment is prepared before construction work begins and appropriate measures will be provided to avoid risk and, if avoidance is not possible, adequate measures to minimize risk. An OHS Plan will be developed that reflects the risk assessment inputs and outputs, including the Root Cause Analysis, and the risk assessment tracking systems developed.	X			Meeting minutes Risk assessment		X		Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction
	Appropriate signage will be placed at construction sites to inform workers of the ground rules and regulations they must follow.									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	A short weekly Toolbox talk will be given to the construction workers by the contractor's OHS specialist about the ESSG risks associated with the construction activity to be carried out.		X		Visual inspection of control measures Training records OHS records Employee records Incident/accident statistics and records Records of workers' complaints	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction
	A safe working environment will be provided for workers.									
	Personal protective equipment (PPE) (hard hats, gloves, dust masks, goggles, full body safety harnesses and safety boots, etc.) in accordance with international best practices and Turkish Legislation will be provided before construction activities.									
	All activities will be carried out in accordance with the Occupational Health and Safety Law (Official Gazette dated 30 June 2012 and numbered 28339) and related regulations, as well as the World Bank Group EHS Guidelines.									
	Any serious incidents that may have significant adverse effects on the environment, affected communities, the public or workers will be immediately reported to the MoEUCC PIU (through supervisory consultants). The MoEUCC then reports any serious incident to the WB within 48 hours, and an incident investigation report will be sent to the WB within 30 days, along with a root cause analysis and corrective action plan.									
	The work site will be kept clean and free of unnecessary material on a daily basis. A first aid kit with bandages, antibiotic creams, etc., or medical facilities will be provided.									
	Safety guidelines for the storage, handling, and distribution of hazardous materials will be followed to minimize the possibility of misuse, spillage, and accidental exposure to people. A defined hazardous material storage area will be created, which has a ventilation arrangement, where there is a collection channel with a									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
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	closed and spilled well for the collection of spilled material, where all materials will be stored according to the requirements in the safety data sheets.									
	Corrosive liquids and other toxic materials will be stored in properly sealed containers for collection and disposal in properly secured areas. It will be ensured that the structural openings are adequately sealed/protected. Loose or light materials stored on roofs or open floors will be fixed. Hoses, power cords, welding cables, etc., will be prevented from being found in heavily used walkways or areas. During heavy rains or any emergency, all work will be suspended. The following precautions will be applied in constructions that require working at height: ▪ Work will be done from as many workplaces as possible. ▪ Individuals with the following personal risks will not permitted to work at heights: vision/balance issues; certain chronic diseases like osteoporosis, diabetes, arthritis, or Parkinson's; individuals taking specific medications such as sleeping pills, tranquilizers, blood pressure medications, or antidepressants; those who will be experienced recent falls or similar incidents within the last 12 months. ▪ Only individuals with adequate skills, knowledge, and experience will be allowed to perform the task. ▪ The safety of the location where work at heights will be conducted (e.g., a roof) is checked for its safety. ▪ Precautions will be taken when working on or near fragile surfaces. ▪ Safety measures against falls, such as safety belts and simple									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	scaffolding/railing, will be provided for work at heights. Oil, grease, paint and dirt will be immediately removed to prevent slipping. Trained operators will be employed to operate special vehicles such as forklifts safely, including safe loading and unloading. Moving equipment with limited rear visibility is equipped with audible backup alarms. Flaggers will be provided to each moving equipment operator to guide the movement of equipment. Before construction activities, all open electrical appliances and lines will be marked with warning signs. All electrical cords, cables and power tools will be checked for frayed or unwound cords and the manufacturer's recommendations will be followed for the maximum permissible operating voltage of portable tools. There will be a leakage current relay in electrical panels. Incidents, including near misses (major incidents including fatalities, lost-time incidents, spills, fires, etc.) and trainings are recorded. Necessary precautions will be taken against the occurrence of fire and a sufficient number of firefighting equipment will be provided for the office, camp area and site.									
Health and safety: Community health and safety risks associated with	Since the subproject is a construction project, people living around the construction area, people living in the existing residential area (due to the material transportation), the agricultural lands and the		X		Visual inspection of control	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
construction activities, including traffic and road-related risks (such as risks to the population due to inadequate construction and traffic management) arising from increased traffic volumes and the movement of heavy vehicles	farmers in the surroundings and within the project area and domestic animals around the transportation roads can be considered the sensitive receptors. The mitigation measures to be taken in the Community Health, Safety and Traffic Management Plan including the Traffic Management Plan will be determined respecting these sensitive receptors. To prevent public access to the construction site, it will be surrounded by a fence. Material stocks/storage areas will be kept away from the public and surrounding living areas. Children are kept away from the construction area. It will be ensured by security guards, fences around the site and warning signs. The route of construction vehicles will be arranged in a way that does not prevent public access to agricultural lands and gardens located near or adjacent to the construction site, and security measures are taken. All earthen waste pits are filled after construction will be completed to prevent stagnant water, waterborne diseases and possible drowning. The driving speed of vehicles will be controlled, especially when passing through public places, nearby schools, health centers or other sensitive areas. If there are school children nearby, traffic safety personnel will be assigned to direct traffic during school hours, if necessary. During the night, the sub-project area is illuminated. The construction site and its surroundings will be kept clean. It will be ensured that broken windows are cleaned immediately to prevent fire. Safety guidelines for transporting hazardous materials to the site will				measures Traffic accident records Complaint records				PIU	

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
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	be followed, aiming to minimize the potential for spills and accidental exposure of people due to traffic accidents. All drivers undergo safety and environmental and social awareness training; driving performance will be assessed and monitored with additional training provided if necessary. Driver training includes advice on behaviours to reduce the potential for disturbance, including the use of horns, loud radios with windows open, switching engines off when not in use, strictly observing speed limits and not accelerating or braking aggressively. A telephone number where the public can complain is displayed on the contractors' work vehicles. It is ensured that the daily life of the people living in the surrounding places of the construction site will be not affected, and transportation does not become difficult. In case of damage to the roads caused by vehicles passing through the settlement during material transportation, the Contractor undertakes to cover the damage the roads will be repaired immediately by the Contractor. Vehicles will be regularly maintained to minimize potential serious accidents due to equipment failure. In areas accessible to all stakeholders (including construction sites), information on issues related to labor flow and measures taken against infectious diseases that may occur after the disaster (e.g. COVID-19 virus) is made through appropriate communication tools (e.g. online/visual materials and verbally). In the event of the occurrence of any epidemic or pandemic/infectious disease, including COVID-19, the Ministry of Health, the Ministry of Family and Social Services, and the Ministry of									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	Labour and Social Security will prepare the guidance and guidelines to will be prepared by the World Health Organization. Ensure that the construction site will be appropriately secured, and construction-related traffic will be appropriately regulated (including proper route planning). These measures will include, but are not limited to: • Direction signs, warnings, barriers, and traffic guidance: The site will be visible, and the public will be alerted to all potential hazards. • Specifically, traffic management systems and personnel training for site access and heavy traffic near the site. Ensuring safe crossings and passages for pedestrians in areas obstructed by construction traffic. • Adjusting working hours according to local traffic regulations, e.g., avoiding heavy transportation activities during peak hours or times of animal movement. • Traffic signs and measures will be designed and placed for vulnerable people sensitive (physically disabled, elderly, illiterate, women, children, students, etc.). They will be easily understandable and markable by the vulnerable. • Warning signs will be placed for domestic animals such as chickens, goats and sheep that may enter the roads while passing through residential areas. • The Consultant will train all Contractor staff on SEA/SH, Gender Equality and GBVH and explain the Code of Conduct in detail. All staff employed on the project will sign a written commitment to comply with the Code of Conduct. The sub-project will introduce a Code of Conduct for all staff working in the field and establish a Grievance Redress Mechanism for project staff.									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
Land Acquisition and Resettlement: Involuntary land acquisition, including impacts on livelihoods, and relocation of community members (if necessary) to new settlement areas	Since there is no land subject to expropriation and/or easement rights for the sub-project, there is no need to prepare a Resettlement Action Plan (RAP). During construction activities, if any damage occurs to third-party assets, lands, crops, vineyards etc., the Contractor will compensate the damage according to WB ESS5 requirements, based on the "full replacement cost." Stakeholder categories, including sensitive groups, will be identified, and consultations will be held regarding the Project with these stakeholders. Project-level Stakeholder Engagement Plan (SEP) will be implemented. It has been determined that there are those who have been informally using the land for agricultural purposes and as pasture for about 23 years. The layout plan was revised in a way that would not affect the cultivated agricultural lands. Thus, agricultural activities will be able to continue during and after construction. Topsoil will be stripped and stored in designated areas. When storing topsoil, it should be stored at a maximum height of 3 m and the incline of slope should not exceed 30 degrees. The slope is lightly compressed with the work machine bucket. It is ensured that the area to be stored does not have a slope of more than 5%. Excavation and backfilling of the subsoil may be involved in land levelling and landscaping operations. There will be no storage of excavation-related excavation in the area, all of it will be used for backfilling for levelling. Entrances to neighbouring lands outside the project area will be	X	X	X	Complaint records Survey Reports	X	X		Contractor (implementation) Supervision Consultant (audit) PIU	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	blocked, thus preventing any impact on neighbouring parcels. Measures will be taken to ensure that farmers engaged in agricultural activities near the construction site continue their activities and that livelihood impacts are prevented. These measures will also be permanent after the construction is completed. Measures will be taken not to prevent access to the lands of farmers and to mitigate possible dust and traffic impacts. It is ensured that excavation material is not mixed with topsoil.									
Water Quality and Wastewater: Water pollution in nearby surface waters due to wastewater/wastes generated in the construction area due to construction activities	To prevent sediment from moving outside the site and flowing into adjacent roads and lands, erosion and sediment control are established using, for example, straw bales and/or silt fences. Efforts are made to minimize the storage or disposal of wastewater on-site. To prevent potential adverse effects on surface waters, temporary or final waste disposal or discharge into or near surface waters will be avoided. No polluted materials, solid waste, toxic or hazardous substances will be stored, poured, or disposed of in water bodies for dilution or disposal purposes. Construction vehicles and machinery (if applicable) will be washed only in designated areas where it will be determined that the rinse water will not contaminate natural surface waters. The wastewater generated by workers on the construction site will be deposited in the septic tank that will be impervious, in accordance with "Regulation on Pit Opening Where Sewer System Construction is not Applicable" published in Official Gazette No: 13783 dated 19.03.1971. Temporary toilets with septic tanks can also be used for this purpose. Septic tank wastewater is periodically removed by vacuum trucks and disposed of in accordance with a protocol established with the relevant municipality that has a		X		Visual inspection of control measures Septic tank wastewater disposal records (if applicable) Wastewater quality measurement records (if applicable) Complaint records	X			Contractor (implementation) Supervision Consultant (audit) PIU	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	licensed wastewater treatment plant (WWTP). The protocol will be submitted to the PIU. There is no drinking water network to this area. However, in the other part of the Tatlar neighbourhood, there is drinking water pipeline It will be planned to use this network to supply drinking water to Tatlar (Yeni). There will not have sewerage network in the project area. Therefore, the wastewater will be collected in the septic tank by constructing a sewerage network on the site. Throughout the project phases, records will be kept regarding the extraction of domestic wastewater by sewage truck. Invoices/receipts for each transportation/disposal will be collected and archived. Natural water flow will not be obstructed or diverted to prevent riverbeds from drying out or residential areas from being submerged. It is located in the upper part of Tatlar Neighboured, which is currently within the scope of the Tatlar (New) Project, and the project area is a hilly and flat area. However, it is observed that there is a downward flow of rain and snow water from the area where the settlement is proposed to be built due to snow and rain in the winter and spring seasons. These natural springs currently join the stream that runs through the Neighbourhood. The site layout has been designed taking this into account. The flow of natural waters will not be obstructed or diverted in another direction, which may not lead to the drying up of river beds or flooding of settlements. Necessary permits are obtained from authorized bodies for the use of any natural water source.									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
Soil and Groundwater Quality: Soil and groundwater contamination due to accidental spills and soil erosion as a result of improper waste management	For proper waste management, mitigation measures specified in the "Solid and Hazardous Waste" section below will be applied. The remaining concrete or syrup in concrete mixers will not be poured onto the construction site, its surroundings or access roads of the construction sites. Drivers and operators will be trained accordingly. Hazardous materials, including chemicals, will be collected and secured in a designated storage area to prevent spillage and overturning. The lids of containers containing semi-used chemicals shall be kept closed when not in use.Intervention methods for spillage will be implemented to limit the exposed area in case of any spillage of hazardous substances or hazardous waste. Project employees will be trained in spill response measures. Appropriate spill kits will be placed in suitable locations on the construction site. Construction will be appropriately planned during the dry season. The length and steepness of slopes will be limited and minimized. Upon completion of work, reclamation areas will be covered with topsoil and promptly re-vegetated with fast-growing plants (grass, shrubs, and trees). Topsoil up to a depth of 10 cm will be stripped and stored for reclamation works in permitted areas such as parking lots, and social facility areas within the sub-project site until construction is completed. It will be stockpiled in a herringbone pattern up to a maximum height of 2 meters and lightly compacted at the edges to prevent rainwater ingress. Ditches will be created around stockpile heaps to collect surface runoff and discharge it to the environment. Excess excavation materials, if any, will be stored in designated		X		Visual inspection of control measures Incident records Topsoil stripping records Training Records Complaint records	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	areas within the permitted area of the sub-project site and transported to land approved by the Municipality. Written permission is obtained from the Municipality for the transportation of excess excavation materials. The personnel and those concerned are warned that it is forbidden to dump the domestic solid wastes that will be generated within the scope of the activity in question into underground and surface waters, lakes and streams, similar receiving environments, streets, roads and open areas, and the necessary trainings are provided.									
Solid and Hazardous Wastes: EHS risks due to improper management of waste from construction activities (construction demolition waste, hazardous waste, biodegradable waste, recyclable waste, non-hazardous waste, etc.)	Wastes will be managed in accordance with the waste management hierarchy (prevent, reduce, reuse, recycle, recover, dispose), and personnel will be trained in waste management. Wastes will be separated as recyclable, hazardous, and non-hazardous waste. General construction waste, organic, liquid, and chemical wastes will be segregated on-site and stored in appropriate containers. Non-hazardous wastes, inert and biologically degradable wastes, and recyclable wastes must be collected separately, ensuring that hazardous wastes are not mixed with other waste types. Wastes will be disposed of at licensed disposal sites/facilities (excavation waste storage areas, landfill sites, recycling/recovery facilities, etc.). Disposal of waste will be recorded in a tracking schedule and permits/licenses of disposal facilities will be obtained. A temporary waste storage area, equipped with a suitable drainage system, appropriate spill kits, and firefighting equipment, will be established on impermeable ground, and covered with a roof within the construction area. Wastes will be temporarily stored in separate compartments (labelled with waste codes) to prevent them from reacting with each other. Hazardous wastes will be stored in the temporary waste storage area for a maximum of six (6) months,		X		Visual inspection of control measures Waste production and disposal records Official correspondence with the municipality Training records Complaint records	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	while non-hazardous wastes will be stored for a maximum of one year. If a thousand kilograms or more of hazardous waste is produced monthly, a temporary storage permit must be obtained from the Provincial Directorate of Environment and Urbanization. Excavation materials will be utilized for backfilling and recovery purposes wherever possible, and other suitable reuse options will be evaluated. Licensed transport vehicles to licensed excavation waste storage areas determined by the district/region's relevant authorities will separately transport excess excavation waste. The respective municipality under the established protocol will collect household solid wastes. Hazardous wastes will be transferred to licensed waste disposal facilities via licensed waste transport companies, while recyclable wastes will be transferred to the relevant licensed recycling/recovery facilities. All protocols will be submitted to the PIU Personnel are assigned for spill response; these personnel will be trained and ensure that they are ready for immediate intervention in case of leakage. In order to provide timely and adequate intervention, leakage and spill response equipment will be kept ready and this equipment is ensured to be available for immediate intervention in the work area with all kinds of chemicals. If necessary, absorbent pads or materials will be used on storage floors. Absorbent pads or materials will be kept ready in chemical material storage areas, waste storage areas, and fields for immediate use when necessary. For domestic and recyclable waste; separate waste containers will be provided (leak-proof garbage containers for domestic solid waste, waste bins for packaging waste, and containers according to the type of recyclable waste in the temporary waste storage area). The type of waste to be collected in the waste bins will be written									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	on the bins. Employees will be trained on the management of non-hazardous waste management and the use of separate waste containers. If waste batteries are generated within the scope of the activity in question, they will be collected in the waste battery collection box in the administrative offices of the project area, separately from other wastes, and delivered to collection points established by businesses or municipalities that distribute Within the scope of the work, maintenance and tire changes of the vehicles will be carried out by the relevant services, but in the case of end-of-life tires in the field of activity, they will be first collected temporarily in the temporary waste storage area to be created and then delivered to licensed companies. Scrap wastes (scrap metals, glass shards, wood pieces, etc.) will be temporarily stored under cover on a solid, leak-proof, safe floor and disposed of by giving them to companies that have an environmental license. Excavation waste will be used for backfill and recycling purposes as much as possible and other appropriate reuse options will be evaluated. Excess excavation waste will be transported and disposed of separately by licensed transportation vehicles to the existing licensed excavation waste storage area(s) determined by the relevant official authorities in the district/region. Temporary waste areas on-site (including excavated soil for foundations) will be placed at least 300 meters away from the stream that passes through the Tatlar Neighbourhood. For fuel replenishment and transfer of other hazardous liquids, safe and impermeable areas ideally located away from residential areas (at least 50 meters from drainage structures and 100 meters from major water bodies) will be used.									

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	After the closure of each construction site, all excavation, debris, and waste will be cleared. Records of waste generation and disposal will be maintained. Whenever possible, appropriate and feasible materials will be reused and recycled. Waste Oils will be collected separately at the source, in barrels marked "waste oil" and on a sealed floor (in a hazardous waste storage area). In case waste vegetable oil will be generated within the scope of the project, waste vegetable oils will be temporarily stored in drums/barrels/tanks marked "waste vegetable oil" in an area with a 25 cm thick sealed reinforced concrete floor. Leak pans will be placed under the barrels. It cannot be mixed with foreign substances. An annual contract will be made with environmentally licensed recovery facilities or vegetable waste oil intermediate storage facilities to collect the oils in question, a waste declaration form will be filled and approved, and a copy is kept for five years to be submitted to the authorities when necessary. It will be sent to the facilities by licensed vehicles.									
Stakeholder Engagement and Grievance Mechanism: Construction-related complaints and temporary disruptions to the local community, including applicable property owners	The Stakeholder Engagement Plan (SEP) prepared by the Ministry of Environment, Urbanism and Climate Change in accordance with the World Bank Performance Standards will begin to be implemented before the construction activities of the sub-project are initiated. This procedure will continue during the construction activities. Depending on the project activities, the plan will be revised if necessary. SEP describes the activities focus on establishing effective communication with individuals who may be affected by the contractor and consultant's work. It is also highlighted the importance of maintaining respect for the local environment and		X		Records of disclosed information, SEP, documents/brochures etc. Meeting minutes, attendance lists Stakeholder engagement log		X		PIU (Implementation) Supervision Consultant (Audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	community by implementing a program for regular communication within the scope of the SEP. Before the start of the sub-project, a meeting will be held with the stakeholders of the Tatlar Neighbourhood who will benefit and/or be affected by the project. Information about the project including the Grievance Redress Mechanism (GRM) will be disclosed and posters, brochures and flyers prepared by the Supervision Consultant will be distributed. At the meeting, people who will be affected by the project will be allowed to express their questions, concerns and opinions, and their questions will be answered by experts. The Supervision Consultant will employ a Social Specialist who will communicate directly with the community, provide the necessary information about the project to internal and external stakeholders, record requests and grievances from the public and find solutions. He/she will frequently inform the people living in the vicinity included in the AoI, about activities and measures taken. Social Specialist will oversee the operation of the Grievance Redress Mechanism (GRM), ensuring that concerns are addressed in accordance with World Bank requirements. From the beginning to the end of the project, grievance boxes will be placed both at the construction site and in the living spaces where the project beneficiaries are currently located (tent and container cities, public buildings they frequently use, etc.). The GRM of the project will manage grievances through the use of "opening" and "closing" forms. The names, contact telephone numbers, and email addresses of all field personnel responsible for inspection and management will be displayed on the site notice board. After obtaining planning permission, official contact will be made				Complaints registry log Consultant's monitoring reports, E&S monitoring and audit reports of the Contractor					

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	with the Neighbourhood Mukhtar, who will then inform potential stakeholders affected by the construction of rural homes. This information will include details about relevant Environmental and Social Risk Management tools, as well as specific times that require sensitivity and attention. All employees will sign/agree to "Behaviour Rules" and receive training to manage potential adverse effects related to social cohesion and Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks. The social experts will provide training on Gender Equality, GBVH, Code of Conduct to blue and white-collar employees working for the contractor. All complaints and demands will be documented, thoroughly investigated, and responded to promptly with details on the actions taken. The grievances will be recorded by the Social Specialist and reported to the Consultant and PUB. Public notice boards displaying the contact information of those responsible for communication, including environmental issues, will be placed in Mukhtar's office, container living cities and the entrance of the construction site.									
Labour and Working Conditions: Risks associated with the potential influx of labour and the presence of labor camps (housing conditions, child labor risks, gender-based violence and harassment, human rights risks, etc.) and other labor issues	Clear and understandable information and documents regarding employment terms and conditions, including all applicable collective agreements within the scope of national labor and employment law, are provided to workers. Regular payment to workers is made as required by national law and the project LMP. Workers will be granted adequate weekly rest periods, annual leave, and sick, maternity, and family leave as required by national law and the project LMP. Written notice about contract termination and severance pay details are sent to workers in a timely manner.		X		Visual inspection of control measures Health records Employee records Review the construction employee	X	X		PIU Contractor (implementation) (implementation) Supervision Consultant (audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	Workers will be employed based on the principles of equal opportunities and fair treatment, and no discrimination is made in any aspect of the employment relationship. Project employees, including specific worker groups such as women, persons with disabilities, migrant workers, and child laborers, are provided with appropriate protection and assistance measures in accordance with the World Bank's ESS2 under the Environmental and Social Framework (ESF). This process is carried out in line with the project LMP. Workers will be allowed or encouraged to join labor unions, engage in collective bargaining, or participate in alternative mechanisms. No workers under the age of 18, the minimum age, will be employed or engaged in discussions by the Contractor related to this sub-project. Employment records are open for inspection by the Client and/or the Consultant. Forced labor involving any work or service extracted from a person under threat of force or coercion, not voluntarily performed, is not used in connection with this sub-project. The Contractor establishes a Worker Grievance Mechanism (GM) at the construction site to allow workers to voice their concerns. Contact information for the GRM will be provided to workers. All workers will be provided training on their rights under national labor and employment laws, as well as their rights concerning the GM during recruitment and before the implementation of work. Information about the GRM will be given during toolbox talks to announce all employees in case of personnel turnover. The Code of Conduct, and Gender-Based Violence and Sexual Harassment (GBVH) will be prepared and shared with project employees during employment. All employees will be obliged to				contracts Training records Records of worker complaints SSI records of all employees					

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	read and this document and comply with the Code of Conduct while working on the project. Entrances and exits to the construction site will be monitored, and unauthorized access to the site is prevented. The Contractor pays particular attention to workers who may have underlying health issues or may be otherwise at risk, ensuring their fitness for work before they commence employment. All workers receive mandatory legal health check reports upon recruitment. The Contractor informs employees about the precautions to be taken against epidemics and contagious diseases. The Contractor will arrange for safe drinking water, adequate toilet facilities, shelter, rest and meal areas for workers. If external labor is needed a Camp Management Plan is prepared to avoid or reduce negative impacts on the community and maintain constructive relationships between local communities and workers' camps; and establish standards on worker welfare and living conditions at the camps that provide a healthy, safe and comfortable accommodation and environment. Necessary transportation facilities are provided for the workers. First aid kits containing bandages, antibiotic creams, etc., or medical facilities will be provided by the Contractor. Adequate personnel will be designated and trained to provide first aid in case of medical emergencies.									
Cultural Heritage: A coincidental finding	Cultural or historical sites will not be damaged. Prior to land preparation activities, project staff will be trained on chance-finding procedures. In case of encountering any cultural heritage/asset during construction works (especially excavation and excavation works), the random finds procedure is applied (see Figure 1). TERRP ESMF Annex-9).		X		Training records Random finding records		X		Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
Biodiversity: Potential risks to flora and fauna due to construction activities and improper waste management	Approximately 9-10 trees need to be cut down in new residential areas, at least twice as many of the cut trees will be planted in the area to be determined by the General Directorate of Forestry (preferably in an area in the nearby area).	X			Tree planting records			X	PIU Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction
	Cutting down trees or destroying vegetation will be prohibited outside the construction area. Hunting, fishing, catching wild animals or gathering plants will be prohibited.		X		Visual inspection of control measures	X			Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction
Specific to Access Roads										
Specific to Rural Road Construction Works										
General Considerations	Will be obtained permission for road extensions from the Municipality and other relevant authorities. Where road widening cannot be avoided, a full report on the need for the work will be submitted to Koltek before any work is carried out on the access roads. The social and environmental impacts of the work and mitigation measures will be detailed. The road to be used will be specified in the Traffic Management Plan. Damage to Neighbouring properties will be avoided during road construction. Project staff and the supply chain will be trained on the access roads to be used.	X			Approval of the explanatory report by Koltek on behalf of the PIU Training records Records of unexpected impacts during the expansion of access routes Correspondence of the municipality and other	Contractor (implementation) Supervision Consultant (audit) Once during design			PIU	

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
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	Avoid road construction on unstable soils, steep slopes and nearby stream banks. Where no alternative road alignments are available, additional measures will be implemented (see slope protection section below).				authorities Design approval					
	Placement of all construction waste (including earth cuts) to approved disposal sites (at >300 m from streams,) will be controlled. Erosion control measures will be implemented before the rainy season begins, preferably immediately following construction. The measures will be maintained and reapplied until vegetation is successfully established. Sediment control structures will be applied where needed to slow or redirect runoff and trap sediment until vegetation will be established.		X		Visual inspection of control measures	X			Contractor (implementation) Supervision Consultant (supervision)	Included in the cost of construction
Slope protection	The slopes will be protected from erosion and landslides by taking the following measures: • Indigenous Species, fast-growing grass on slopes prone to erosion. These grasses help stabilize the slope and protect soil from erosion by rain and runoff. Locally available species possessing the properties of good growth, dense ground cover and deep root will be used for stabilization. • Provide interceptor ditch, particularly effective in areas of high-intensity rainfall and where slopes are exposed. This type of ditch intercepts and carries surface run-off away from erodible areas and slopes before reaching the steeper slopes, thus reducing the potential surface erosion.		X		Visual inspection of control measures	X			Contractor (implementation) Supervision Consultant (supervision)	Included in the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	• On steep slopes, it is planned to use a stepped embankment (terracing) for greater stability. • Place a retaining wall at the lower part of the unstable slope. The wall needs to have weeping holes for drainage of the road sub-base, thus reducing pressure on the wall. • Rocks (riprap) can be used in addition to protect the slope. • Prevent the uncontrolled run-off of water from the road surface with drainage ditches of sufficient size and divert the water away from the downhill slope.									
Special for Wastewater Systems										
General Considerations for Septic Tanks (If used by the Contractor during construction and in the treatment of Tatlar (Yeni)'s wastewater)	Septic tanks will have a vent pipe to prevent gas from accumulating inside the reservoir and have a 'manhole' that allows access to the inside of the tank when needed. It will be ensured that the septic tanks have two chambers: the first chamber is for settling sludge, and the second chamber is for aerobic treatment. These chambers will generally treat wastewater better. Partially treated septic tank effluent can pollute groundwater and surface water. In cases where this is not possible, septic tanks will be impervious and designed in accordance with the "Regulation on Opening Pits in Places Where Sewage System Construction Cannot Be Applied" published in the Official Gazette dated 19/03/1971 and numbered 13783 and septic tanks will be sealed.	X			Design approval		Once during design		PIU Contractor (implementation) Supervision Consultant (audit)	Within the cost of construction
	Septic waste will not discharged into an open sewer or other surface waters. Wastewater will be treated before final disposal.		X	X	Wastewater disposal records (if applicable) Protocol with		X		Contractor (implementation) Supervision Consultant	Within the cost of construction

Potential Risks and Impacts	Recommended Mitigation Measures	Phase			Monitoring Indicators	Monitoring Frequency			Responsibility for Implementation and Monitoring Planning	Estimated Cost Construction
		Planning	Construction	Operation Phase		Continuous	Monthly	Quarterly		
	This can be achieved through (i) an underground infiltration area, (ii) a vegetated infiltration area, or (iii) a pit for percolation. In cases where this is not possible, septic waste will be periodically removed with vacuum tankers and disposed of within the framework of a protocol established with the relevant municipality having a licensed wastewater treatment facility. The septic tank's volume will be adequately determined to include the quantity of wastewater until it is conveyed to the municipal system (The septic tank volumes will be calculated, evaluated, and submitted for approval to Koltek along with estimated and planning figures before the installation of septic tanks.) The community to ensure the proper will be continued operation of septic tanks as evidence of preventing soil/water pollution should raise community awareness about the periodic inspection of septic tanks. Septic tanks will be regularly disinfected with insecticides to prevent pests and flies.				the municipality Records of community awareness activities Records of complaints				(audit) Local government (Mukhtar)	

7. ANNEXES

Annex 1: Title Deeds

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TAŞINMAZA AİT TAPU KAYDI

Zemin Tipi	:AnaTasinmaz	Ada/Parsel	:146 / 206
Zemin No	:80414847	Yüzölçüm	:12111130.60 m²
İl/İlçe	:KAHRAMANMARAŞ/NURHAK	Ana Taş. Ntlk	:ORMAN
Kurum Adı	:Nurhak		
Mah/Köy Adı	:YENİ		
Mevkii	:KANDİL		
Cilt/Sayfa No	:9/883		
Kayıt Durum	:Aktif		

MÜLKİYET BİLGİLERİ

Sistem No	Malik	Elbirliği No	Hisse Pay/Payda	Metrekare	Edinme Sebebi - Tarih - Yev.	Terkin Sebebi - Tarih - Yev.
234441978	MALİYE HAZİNESİ	-	1/1	12111130.60	İfraz İşlemi (TSM)-21/03/2013-133	

İpotek

Alacaklı	Müşterekmi?	Borç	Faiz	Derece/Sıra	Süre	Tesis Tarih - Yev.	Borçlu	SDF Hakkı

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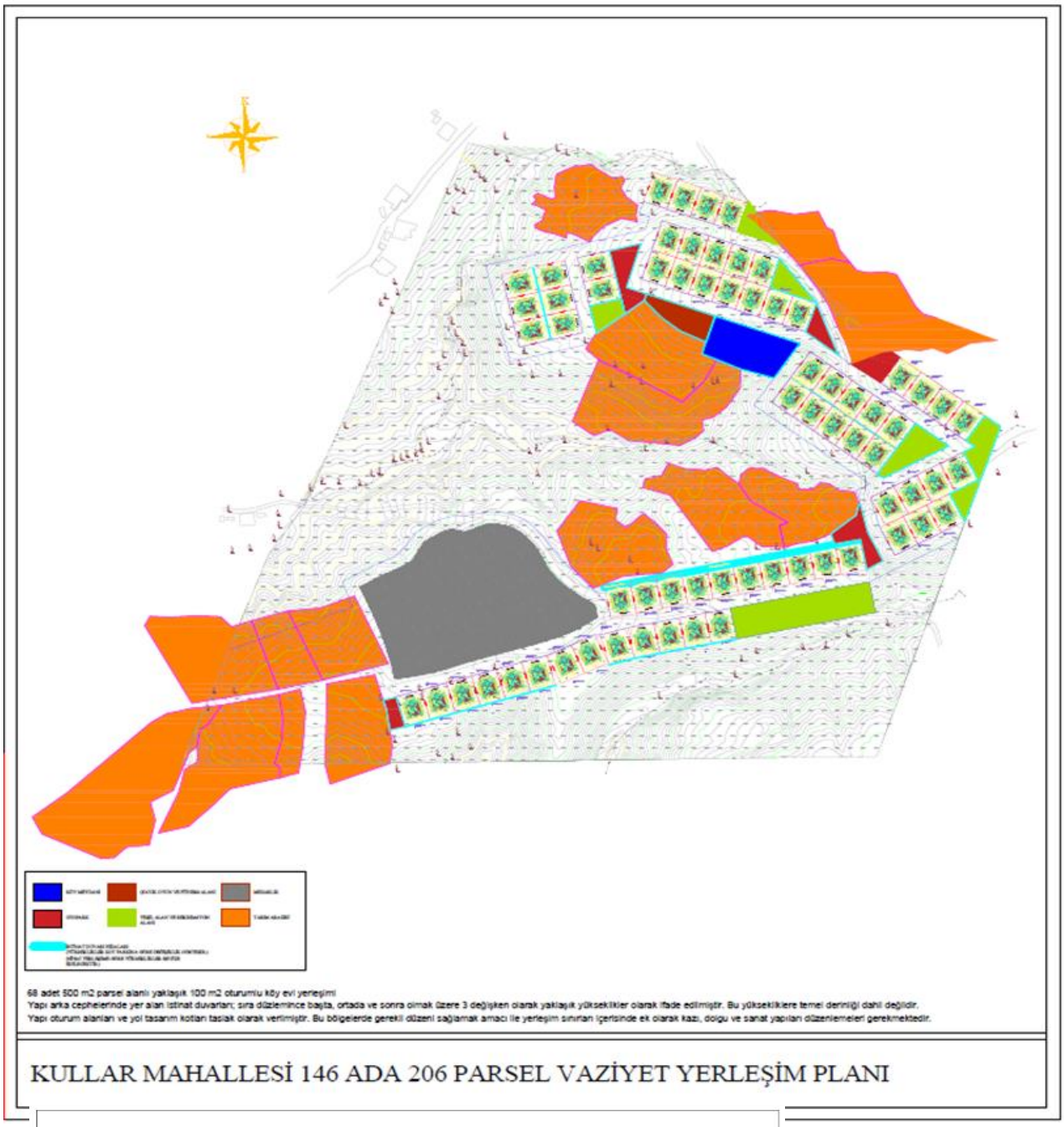
Annex 2: Photographs

Photo 1: Tatlar (Yeni) Parcel 146/206 Rural Houses Area

Photo 2: Tatlar (Yeni) Parcel 146/206 area

Photo 2: Tatlar (Yeni) Parcel 146/206 general view of the area

Annex 3: Neighbourhood Settlement Plan



Annex 4: Screening Form (given as a separate document)