TÜRKİYE PUBLIC and MUNICIPAL RENEWABLE ENERGY PROJECT

VAN WATER and SEWERAGE ADMINISTRATION 32 MW SOLAR POWER PLANT PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

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Project Information

Project	Details
Name	Türkiye Public and Municipal Renewable Energy Project Van Water and Sewerage Administration 32 MW Solar Power Plant Project Environmental and Social Management Plan (ESMP)
Project Owner	Van Water and Sewerage Administration (VASKİ)
Client	İller Bankası A.Ş (İLBANK)
Prepared by	MGS Project Consultancy Engineering Trade Co. Ltd. (MGS)

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Prepared by:

Pelin Deniz YOĞURTÇU	Project Manager/International Projects Coordinator
Hilal AYDIN	Environmental Specialist / Environmental Engineer
Fikret VAROL	Environmental Specialist / Environmental Engineer
Lütfiye Hazal GÜÇLÜ	Environmental Specialist / Environmental Engineer
Begüm AYDOĞAN	Environmental Specialist / Environmental Engineer
Hüseyin GÜNGÖR	HSE Expert
Cansu GÜLER	HSE Expert / Environmental Engineer
Furkan AKSU	Social Specialist / Sociologist
Merve YILDIRIM	Social Specialist / Sociologist

This Environmental and Social Management Plan has been prepared by MGS Project Consultancy Engineering Trade Co. Ltd. on behalf of VASKİ within the scope of Turkey Public and Municipal Renewable Energy Project supported by the World Bank (WB) with ILBANK as the financial intermediary.

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Abbreviations

AoI	Area of Influence
DCC	Document Control Center or System
EIA	Environmental Impact Assessment
EHS	Environmental Health and Safety
ERP	Emergency Response Plan
ERT	Emergency Response Teams
ESF	Environmental and Social Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESP	Environmental and Social Policy
ETL	Energy Transmission Line
EU	European Union
GHG	Greenhouse Gas
GMP	Grievance Mechanism Procedure
GMCP	GM Contact Person
GN	Guidance Notes
HCl	Hydrogen chloride
HF	Hydrogen flouride
HS	Health and Safety
IFC	International Finance Corporation
ILBANK	İller Bankası A.Ş.
KPI	Key Performance Indicator
MoEUCC	Ministry of Environment, Urbanization and Climate Change
MGS	MGS Project Consultancy Engineering Trade Ltd. Co.
MSDS	Materials Safety Data Sheets
NO2	Nitrogen dioxide
OG	Official Gazette
OHS	Occupational Health and Safety
OHSMP	Occupational Health and Safety Management Plan
PUMREP	Public and Municipal Renewable Energy Project
Pb	Lead
PLN	Plan
PM	Particulate Matter
PPE	Personel Protective Equipment
Project Company	Van General Directorate of Water and Sewerage Administration (VASKİ)
PS	Performance Standard
QAM	Quality Assurance Manager
RCIAP	Regulation on Control of Industrial Air Pollution
RAQAM	Regulation on Air Quality Assessment and Management
RoCIAP	Regulation on Control of Industrial Air Pollution
SEP	Stakeholder Engagement Plan
SO2	Sulfur dioxide
SPP	Solar Power Plant
SRS	Social Responsibility Staff
SoW	Space of Work
The Project	VASKI 32 MW Solar Power PlantProject
TMP	Traffic Management Plan

TOC	Total Organic Compounds
UGR	Unlicensed Generation Regulation
VAN MM	Van Metropolitan Municipality
VASKİ	Van General Directorate of Water and Sewerage Administration
VOC	Volatile Organic Compounds
WB	World Bank
WBG	World Bank Group
WHO	World Health Organization
WPCR	Water Pollution Control Regulation

1 INTRODUCTION

The Türkiye Public and Municipal Renewable Energy Project (PUMREP) aims to support the Government of Türkiye to scale-up Renewable Energy (RE) use in the public sector by focusing on central government buildings and municipalities. The Project will contribute to expanding the distributed RE market in public facilities help demonstrate leadership in the public sector to use sustainable energy solutions to deliver on the country's climate mitigation commitment and enhance energy security.

The PUMREP will be financed by World Bank (WB) to support introducing RE technologies in municipalities. İller Bankası A.Ş (ILBANK) will be acting as the Financial Intermediary (FI). The RE installations will be primarily used to offset the overall energy consumption from public facilities (e.g., administrative buildings, water supply and water treatment, public lighting, etc.) and thus reduce the municipalities' energy bills.

ILBANK has established an **Environmental and Social Management System (ESMS)** effective on **24th of Dec 2023.** The ESMS is aimed at ensuring systematic identification, assessment, management, monitoring, and reporting of the environmental and social (E&S) risks and impacts of the **projects and subprojects financed by the International Finance Institutions (IFIs).** This process should be implemented on an ongoing basis throughout their loan duration in line with the requirements of the national legislation, international agreements and conventions ratified by Türkiye and E&S standards of lending **IFIs** (World Bank for the PUMREP). As a critical element of the ESMS, ILBANK has adopted and published[1] an **E&S Policy** applicable to all ILBANK projects and subprojects financed through IFIs.

Within the scope of the ILBANK's ESMS and World Bank Environmental and Social Framework (ESF), projects are classified as either High Risk, Substantial Risk, Moderate Risk or Low Risk taking into account relevant potential risks and impacts, such as the type, location, sensitivity and scale of the project; the nature and magnitude of the potential E&S risks and impacts; the capacity and commitment of the Borrower; and other relevant areas of risks that may result in unintended impacts.

"VASKİ 32 MWe Solar Power Plant Project" (the Project) is planned to be implemented by Van Water and Sewerage Administration General Directorate in Van province, Edremit district, Bakımlı neighbourhood, Dağ locality, parcel number 890. In accordance with the national EIA Regulation that entered into force with the Official Gazette dated 29.07.2022 and numbered 31907, VASKİ 32.000 kwe solar energy project is within the scope of EIA as per the legislation due to its installation on land. Approval letters have been received from the relevant Ministry of Environment, Urbanization and Climate Change (MoEUCC) for the project and the EIA certificate in *Annex-A* has been received.

The Project is categorized as of **Moderate Risk** as per the Risk Screening conducted under ILBANK ESMS and World Bank ESF. One of the tasks under the scope of the Project is the preparation of an Environmental and Social Management Plan (ESMP) in accordance with ILBANK's ESMS and WB ESF including applicable Environmental and Social Standards (ESSs), World Bank Group (WBG) General Environment Health and Safety (EHS) Guidelines and Industry Sector Guidelines, and the national legislation in force in Türkiye.

This ESMP has been prepared by MGS Project Consultancy Engineering Trade Co. Ltd. (MGS) based on the environmental and social impact and risk assessment studies conducted for the Project, which addresses site-specific mitigation, monitoring, and institutional measures to be taken during pre-construction, land preparation, construction, and operation phases of the Project to either eliminate or

[1] https://www.ilbank.gov.tr/sayfa/ilbank-environmental-and-social-policy

reduce these adverse environmental and social impacts to acceptable levels. Moreover, a Stakeholder Engagement Plan (SEP) is also prepared for the Project.

The content of this ESMP are as follows:

- To outline the environmental and social goals of the Project,
- To present an overview of the ESMS that will be implemented to ensure systematic and effective execution of the environmental and social commitments and mitigation measures relevant to the construction and operational phases of the Project,
- To identify potential environmental and social impacts/risks, required mitigation and monitoring measures and institutional arrangements, to address these risks during construction and operation by eliminating/mitigating/reducing or off setting them.
- To include the measures and actions needed to implement the measures regarding mitigation, monitoring, capacity development, training and implementation schedule (phasing, coordination, etc.)
- To determine the roles and responsibilities of VASKİ, Construction Supervision Consultant and Contractors/Sub-contractors in implementing the ESMP,
- To establish programs to meet the objectives and targets, oriented to continuous improvement,
- To ensure the awareness and competence of VASKİ, contractor and subcontractor personnel regarding policies, objectives, and targets,
- To provide a mitigation plan and monitoring program for the implementation of the ESMP, comprising periodic internal and external audits and inspection,
- To review the progress in achieving the environmental and social objectives and targets, and to make improvements.

This ESMP provides instructions, responsibilities, and guidelines to the responsible parties with a set of mitigations, monitoring, and institutional measures to be taken during the implementation (construction) and operation of the Project to avoid potential adverse environmental and social impacts or reduce to acceptable levels. For all monitoring requirements, the technical parameters are defined along with the appropriate responsibilities and reporting procedures. Moreover, a grievance mechanism for receiving and addressing all grievances, complaints, and comments related to the Project is set out in this ESMP.

The ESMP has identified mitigation measures and monitoring activities to reduce and avoid impacts and risks associated with the Project. A summary of the mitigation measures is given in *Table 4-1*.

VASKİ is the owner of the proposed Project. During operation phase, an operator team assigned by VASKİ, will ensure compliance of the national and international legislation.

In this scope, the Project will be in compliance with the World Bank's WB/ESF (2018) and ILBANK ESMS as well as the WB Environment, Health and Safety Guidelines (EHSGs) listed below:

- World Bank Group (WBG) General Guidelines on Environment, Health and Safety (EHS),
- WBG Water and Sanitation EHS Guidance,
- WBG Waste Management EHS Guidelines, and
- WBG EHS Guidelines for Electric Power Transmission and Distribution.

1.1 Legal Framework

The National Legislation and International Legislation applicable to the management of environmental, social, health and safety aspects of the proposed Project has been identified under this section.

1.1.1 Institutional and Legal Framework in Türkiye

In Turkiye, institutional framework consists of central and local administrations. Turkiye is structured by provinces according to economical and geographical conditions. Each province is managed by local administrations consisting of municipalities, villages/neighborhoods. Representatives of the administrative structure of municipalities and villages/neighborhoods are mayors and mukhtar, respectively. Ministries, which are central administrative units, provide services to local areas through their local branches including provincial organizations affiliated to governor and district organizations affiliated to district governors.

Environmental impacts, permits, management and inspection of the project is under the scope of authority of MoEUCC, Ministry of Agriculture and Forestry, Ministry of Culture and Tourism, Ministry of Labor and Social Security and Ministry of Health. MoEUCC is the key authority regulating policies and procedures related to conservation and protection of natural environment, management of natural resources and settlements by its general directorates. Those principally related to the Project are given as follows:

- General Directorate of Environmental Impact Assessment, Permit, and Inspection
- General Directorate of Environmental Management
- General Directorate of Protection of Natural Assets
- General Directorate of Infrastructure and Urban Transformation Services
- General Directorate of Land Registry and Cadastral

Provincial, regional and district level administrations are the provincial organizations of ministries and related institutions. The Project is within the scope of Van Metropolitan Municipality, Van Provincial Directorate of Environment, Urbanization and Climate Change, Van Provincial Directorate of Agriculture and Forestry, Edremit District Directorate of Agriculture and Forestry, Van Regional Directorate for the Protection of Cultural Assets, State Hydraulic Works (DSİ) 17th Regional Directorate, Van Forest Management Directorate and 11th Regional Directorate of Highways. Relevant neighborhood administrations have been associated as local administrations for the Project.

National Legislation on Environmental, Social, Labor and Health and Safety:

The National Legislation applicable to the management of environmental, social, health and safety aspects of the proposed Project has been identified under this section.

The Environmental Law No: 2872 published in the Official Gazette No. 18132 dated 11.08.1983 and later revised in the Official Gazette No. 28661 and dated 29.05.2013 (Law No. 6486) constitutes the basic legal framework of the environmental legislation in Türkiye and is largely in line with the EU Directive on EIA.

This law is supported by numerous regulations. Article 10 of Environmental Law forms the main framework of the Environmental Impact Assessment (EIA Regulation) published in the Official Gazette No. 31907 dated 29.07.2022. As per the EIA Regulation, the projects that are listed in its Annex-I are subject to a full EIA process and those projects have to receive an “EIA Positive” certificate to proceed with investments. The projects that are listed in Annex-II of the Regulation are subject to a shorter process where the project proponents are required to submit a Project Information File (PIF) to the MoEUCC. MoEUCC gives its “EIA is Necessary” or “EIA is not necessary” decision regarding the project.

Unless the decision that “EIA is Positive” or “EIA is not Required” is made in accordance with the EIA Regulation for the project’s activities, incentive, approval, permit, building license and use permit for such projects cannot be granted, and no investment can be started or tendered for the project. However,

this does not preclude applying for the processing of such incentives, approvals, permits, and licenses. As part of the European Union membership process, Türkiye has carried out a variety of organizational and legislative reforms. With these reforms, environmental legislation and environmental protection instruments have been harmonized with international standards. The activities and liabilities to be carried out within the scope of the Project must adhere to the provisions of the relevant Turkish legislation.

According to the EIA Regulation (Official Gazette dated 29.07.2022 and numbered 31907), VASKI 32 MWe solar energy project is within the scope of Annex-I of EIA Regulation. The EIA Positive Certificate for the project is given in *Annex-A.*

In addition to Environmental Law No: 2872, several associated laws are complementary regarding the protection and sustainability of the environment as well as the protection of health and safety rights of people. Those laws which would be applicable to the proposed Project are listed below:

- Environmental Law No. 2872 (OG No:18132, dated 11.08.1983)
- Expropriation Law No. 2942 (OG No:18215, dated 08.11.1983)
- Forestry Law No. 6831 (OG No:9402, dated 08.09.1956)
- National Parks Law No. 2873 (OG No:18132, dated 11.08.1983)
- Conservation of Cultural and Natural Assets Law No. 2863 (OG No:18113, dated 23.07.1983, and revised through the amendment issued on 27.07.2004)
- Highways Traffic Law No. 2918 (OG No:18195, dated 13.10.1983)
- Soil Conservation and Land Use Law No. 5403 (OG No:25880, dated 19.07.2005)
- Terrestrial Hunting Law No. 4915 (OG No:25165, dated 11.07.2003)
- Animal Protection Law No. 5199 (OG No:25509, dated 01.07.2004)
- Labor Law No. 4857 (OG No:25134, dated 10.06.2003)
- Occupational Health and Safety Law No. 6331 (OG No:28339, dated 30.06.2012)
- Social Insurance and General Health Insurance Law (OG No:26200 dated: 16.06.2006)

The regulations developed under the Environmental Law aim to specify and identify the procedures and principles of the management of environmental aspects. Under the relevant laws, several regulations or communiques are summarized in *Table 1-1:*

Table 1-1.Regulations and/or Communiques regarding Environmental, Social, Labor, Health and Safety Aspects

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
Environmental Permit and Licenses			
Regulation on Environmental Impact Assessment	31907	29.07.2022	Scoping the Project and evaluating impacts during pre-construction, construction, and operation phases of the project.
Regulation on Environmental Permits and Licensing	29115	10.09.2014	Determination of required environmental permits and licenses at all phases of the Project.
Regulation on Environmental Auditing	27061	21.11.2008	Environmental audits performed by either Project Owner or governmental authorities during construction and operation stages.
Regulation on the Implementation of the Law Concerning Private Security Services	25606	07.10.2004	During the construction phase for camp site security (in case of any) and during the operation phase for safety purposes for reservoirs (in case of any planning).
Air Quality Control and Greenhouse Gas (GHG) Emissions			
Air Quality Assessment and Management Regulation	26898	06.06.2008	Emissions during operation stage.
Industrial Air Pollution Control Regulation	27277	03.07.2009	During the construction phase, dust emissions.
Regulation on the Control of Odor Causing Emissions	28712	19.07.2013	Possible odorous emissions generated during operation stage.
Exhaust Gas Emission Control Regulation	30004	11.03.2017	Operation of Project vehicles, machinery, and equipment at all phases of the Project.
Regulation on the Control of Air Pollution from Heating	25699	13.01.2005	Heating of the operational buildings during operation phase.
Biodiversity Conservation and Protection of Nature			
Regulation on the Protection of Wetlands	25818	17.05.2005	Measures to be taken for wetland protection near to the Project area during the planning phase of the Project.
Law on Natural Parks	18132	11.08.1983	Measures to be taken for natural parks protection near to the Project area during the planning phase of the Project.
Regulation on Aquaculture	22223	10.03.1995	Determination measures to be taken for the construction and operation phases.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
Regulation on Protection of Wildlife and Wildlife Development Area	259637	08.11.2004	Measures to be taken for wildlife protection near to the Project area during the planning phase of the Project.
Chemicals and Other Dangerous Substances			
Regulation on Classification, Labelling, and Package of the Materials and Mixtures	28848	11.12.2013	Taking measures for chemicals and mixtures to be used during construction and operation phases.
Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals	30105	23.06.2017	Determination of chemicals to be used during the operation phase.
Regulation on Persistent Organic Pollutants	30595	14.11.2018	Determination of chemicals to be used during the operation phase.
Regulation on the Control of Polychlorinated Biphenyls (PCBs) and Polychlorinated Terphenyls (PCTs)	26739	27.12.2007	Usage of transformers, capacitors, electrical equipment including voltage regulators, switches, oil used in motors, old electrical devices or appliances containing PCB capacitors, fluorescent light ballasts during the operational phase.
Noise			
Environmental Noise Control Regulation	32029	30.11.2022	Determination of noise emissions and measures to be taken at construction and operation phases.
Regulation on the Environmental Noise Emissions Caused by Equipment Used Outdoors	26392	30.12.2006	Regulating the noise levels caused by noise sources within the Project site at the construction and operation phases.
Regulation on the Protection of Employees from Risks About Noise	28721	28.07.2013	Minimum requirements to protect workers from the health and safety risks that may arise from exposure to noise, especially hearing-related risks during the construction phase.
Soil and Land Use			
Regulation on the Control of Soil Pollution and Lands Contaminated by Point Sources	27605	08.06.2010	Determination of risks of soil contamination at construction and operation phases.
Regulation on Control of Excavated Soil, Construction and Demolition Wastes	25406	18.03.2004	Management of excavated soil and construction and demolition wastes at the source.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
Regulation on Protection, Use, and Planning of Agricultural Lands	30265	09.12.2017	Management of change in the land use during the planning phase of the Project.
Waste			
Regulation on Waste Management	29314	02.04.2015	Management of waste from generation to disposal without harming the environment and human health during construction and operation phases.
Zero Waste Regulation	30829	12.07.2019	General principles regarding the establishment, development, monitoring, financing, recording and certification of the zero waste management system in line with sustainable development goals during construction and operation phases.
Regulation on Packaging Waste Control	30283	27.12.2017	Preventing the formation of packaging waste, reducing the amount of unavoidable packaging waste to be disposed of using reuse, recycling and recovery methods in construction and operation phases.
Regulation on Waste Oil Management	30985	21.12.2019	Waste oils included in the definition of waste oil and the management, recovery, disposal of these wastes, precautions to be taken and notifications to be made
Regulation on Medical Waste Control	29959	25.01.2017	Collection of medical waste in the places where it is produced, temporary storage, transportation to the medical waste processing facilities and disposal
Regulation on Control of Waste Electrical and Electronic Equipment	28300	22.05.2012	Management of electrical and electronic equipment wastes during construction and operation phases.
Regulation on Control of Waste Batteries and Accumulators	25569	31.08.2004	Establishment of a collection system and management for the recovery or final disposal of waste batteries and accumulators.
Regulation on Control of End-of-life Tires	26357	25.11.2006	Establishing a collection and management system for ensuring the necessary regulations and standards in the management of end-of-life tires during the

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
			construction and operation phases.
Water and Wastewater			
Regulation on Management of Surface Water Quality	28483	30.11.2012	Regulating discharge of treated effluent and monitoring of water quality at receiving body during operation phase.
Regulation on the Monitoring of Surface Waters and Groundwater	28910	11.02.2014	Monitoring of water quality at receiving body during operation phase.
Regulation on Water Pollution Control	25687	31.12.2004	Discharge of treated effluent during operation phase of the Project.
Regulation on the Protection of Ground Waters against Pollution and Deterioration	28257	07.04.2012	Protection of groundwater sources against pollution during construction and operation phases.
Regulation on the Control of Pollution Caused by Hazardous Substances in and around Water Environment	26005	26.11.2005	Management of hazardous substances during construction and operation phases.
Regulation on Water Intended for Human Consumption	25730	17.02.2005	Management of drinking water supplied during construction and operation stages.
Regulation on Quality and Treatment of Potable Water to be Supplied	30823	06.07.2019	Determination and monitoring of quality of water to be supplied during the operation phase.
Regulation on Wastewater Collection and Remote Systems	29940	06.01.2017	Procedures and principles regarding the planning, design and project design, construction and operation of wastewater collection and removal systems.
Regulation on Control of Water Loss in Water Supply and Distribution Systems	28994	08.05.2014	Procedures and principles regarding the duties and responsibilities of water administration for reducing water losses in water supply, storage, transmission, distribution and consumption.
Regulation on the Procedures and Principles to Be Followed in the Determination of Wastewater Infrastructure and Domestic Solid Waste Disposal Plant	27742	27.10.2010	Establishment, maintenance, repair, operation, closure and monitoring of wastewater infrastructure facilities, determination of full cost-based tariffs that can cover all services, adjustment and implementation of wastewater infrastructure management

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
			by metropolitan municipalities and municipalities
Structural Safety			
Regulation on Structures to be Built in Natural Disaster Areas	26582	14.07.2007	Management of construction works within the scope of the Project.
Regulation on Building Constructions in Earthquake Zones	26454	06.03.2007	Management of construction works within the scope of the Project.
Regulation on Building Earthquake of Turkiye	30364	18.03.2018	Measures to be taken for the design and construction works under the impact of earthquakes and the evaluation of the performance of existing buildings under the impact of earthquakes.
Regulation on the Protection of Buildings from Fire	26735	19.12.2007	Measures to be taken for fire protection during construction and operation phases.
Traffic			
Regulation on the Road Transportation of Hazardous Goods	28801	24.10.2013	Hazardous goods to be transported during construction and operation phase.
Regulation on Highway Traffic	23053	18.07.1997	Regulating speed limits of vehicles and machinery used during construction and operation phases.
Regulation on Traffic Signs	18789	19.06.1985	Regulating the traffic signs to be used during the construction and operation phases
Health and Safety and Labor			
Regulation on Emergency Situations in Workplaces	28681	18.06.2013	Preparation of emergency plans, prevention, protection, evacuation, firefighting, first aid and similar studies in workplaces.
Regulation on duties and responsibilities of OHS Specialists	28512	29.12.2012	Defines roles and responsibilities of OHS specialists
Regulation on duties and responsibilities of Occupational Physicians and other medical personnel	28713	20.07.2013	Defines roles and responsibilities of Occupational physicians and the medial personnel
Regulation on Health and Safety at Construction Works	28786	05.10.2013	Measures to be taken during construction phase.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
Regulation on Health and Safety Conditions Regarding Use of Work Equipment	28628	25.04.2013	Measures to be taken during construction phase related to use of equipment.
Regulation on Health and Safety Precautions Regarding Working with Chemicals	28733	12.08.2013	Measures to be taken during construction and operation phase related to use of chemicals.
Regulation on Protection of Employees from the Hazards of Explosive Environments	28633	30.04.2013	It regulates the procedures and principles regarding the precautions to be taken in order to protect the employees from the dangers of explosive atmospheres that may occur in the workplaces in terms of health and safety.
Regulation on Health and Safety Regarding Temporary and Time-Limited Works	28744	23.08.2013	Protection of employees with a temporary or fixed-term employment contract at the same level as other employees in the workplace in terms of health and safety.
Regulation on Health and Safety Signs	28762	11.09.2013	Measures to be taken during construction and operation phases.
Regulation on Management of Dust	289812	05.11.2013	Measures to be taken to combat dust in terms of occupational health and safety to prevent the risks that may arise from dust in the workplaces and to ensure that the workers are protected from the effects of dust.
Regulation on Material Safety Data Sheets on Hazardous Materials and Mixtures	29204	13.12.2014	Preparation of safety data sheets to ensure effective control and surveillance against the negative effects of harmful substances and mixtures on human health and the environment during construction and operation phases.
Law on Occupational Health and Safety (6331)	28339	20.06.2012	Health and safety measures to be taken during construction and operation stages.
Regulation on Personal Protective Equipment	30761	01.05.2019	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Protection of Workers from Risks Created by Noise	28721	28.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Project
Regulation on Risk Assessment for Occupational Health and Safety	28512	29.12.2012	Determination of occupational health and safety risks occurring during construction and operation phases.
Regulation on Sub-contractors	27010	27.09.2008	Management of contactors/sub-contractors during construction and operation phases.
Regulation on Use of Personal Protective Equipment in Workplaces	28695	02.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Vocational Training of the Employees Working in Dangerous and Highly Dangerous Workplaces	28706	13.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on the Procedures and Principles of Employee Health and Safety Training	28648	15.05.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on High Current Electrical Facilities	24246	30.11.2000	Covers measures regarding the safe installation, construction, operation and maintenance of high current electrical facilities.
Regulation on Manual Handling	28717	24.07.2013/	Defines the safe procedures for safe handling of goods and equipment using manual manpower.
Cultural Heritage			
Law on Protection of Cultural and Natural Assets	18113	23.07.1983	During chance finds at the construction phase, determination of measures to be taken.
Regulation on Researches, Drillings and Excavations in relation to the Cultural and Natural Assets	18485	10.08.1984	Defining the procedures and obligations concerning the cultural and natural assets found out during construction.

1.1.2 International Standards and World Bank Environmental and Social Standards:

PUMREP is subject to ILBANK ESMS. Thus, WB's environmental and social assessment procedures and Turkish legislation, and key gaps and ways to close these gaps are presented in the ESMS. Under the ESMS, the processes of WB ESS and Turkish EIA Regulation are separately discussed in terms of screening, environmental assessment, public consultation, scoping, review of environmental and social impact assessment, disclosure, monitoring and inspection. The Turkish EIA procedures are, with some exceptions, in line with the WB's ESSs. The primary exceptions are in project categorization, scope of

environmental and social assessment, and public consultation. In cases where the Turkish legislation differ from the ESSs, the more stringent one will be applied to the project implementation.

Gaps between WB ESSs and Turkish Environmental and Social Legislation, and actions taken in this ESMP (having Moderate E&S risks) to fill those gaps are summarized in the *Table 1-2* below:

Table 1-2.Key Gaps Between WB ESSs And Turkish E&S Legislation

WB Environmental and Social Standards (ESS)	Gaps	Actions taken to fill gaps
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	The social impact assessment is not fully integrated into the Turkish EIA, resulting in a lack of assessment of the project that triggered the social impacts, including impacts on the disadvantaged or vulnerable and impacts on gender-related issues,	With this ESMP prepared for the Project, the social impacts as well as the environmental impacts of the Project were evaluated and the gap was filled. Depending on the level of risks/impacts to be identified on a case-by-case basis, sub-management plans (e.g. OHS management, Traffic Management, etc.) is addressed to be developed as part of the ESMP.
ESS2: Labor and Working Conditions	In general, Turkish national laws and regulations regarding labor and working conditions meet the requirements of ESS2. The worker grievance mechanism is a key gap between national legislative requirement and ESS2. According to the Turkish national labor and working conditions legislation, there are no specific requirements regarding the grievance mechanism allowing workers to lodge their grievances with the employer.	A SEP has been prepared under the project and the grievance mechanism is defined in this plan. In accordance with the prepared SEP, the channels through which stakeholders can submit their grievances are explained.
ESS3: Resource Efficiency and Pollution Prevention and Management	Most of the relevant national legislation regarding laws and regulations is in line with EU directives. There is not a big gap between ESS3 and legal requirements. The absence of GHG forecasts for the configuration and operation phases is defined as the main gap.	In cases where the Turkish requirements differ from the levels and measures presented in the WB EHSGs, the more stringent one will be applied in the project specifications.
ESS4: Community Health and Safety	In general, there is no gap in terms of policy level. On the other hand, project-level management of certain risks such as labor influx, sexual exploitation, abuse and sexual harassment are key gaps of ESS4.	In this ESMP prepared for the Project, labor influx, sexual exploitation, abuse and sexual harassment issues were determined as an impact and mitigation measures and monitoring methods were included in these impacts.

WB Environmental and Social Standards (ESS)	Gaps	Actions taken to fill gaps
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Turkish legislation on land acquisition mainly corresponds to the requirements stipulated by ESS5.	As there will be no expropriation within the scope of the Project, ESS5 will not be triggered.
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	There is no gap in terms of policy level. On the other hand, in some cases, level of the considerations of not legally protected sensitive ecological areas such as Key Biodiversity Areas in local EIA Process are not sustain the requirements stipulated by ESS6. Furthermore, management and monitoring of potential impacts, mitigation measures and residual impacts are not detailed in general.	Assessments were conducted in compliance to ESS6. The management, mitigation measures and monitoring of potential impacts on sensitive ecological areas are detailed within the ESMP.
ESS10: Stakeholder Engagement and Information Disclosure	Effective and transparent stakeholder engagement is a key gap for the ESS 10 requirement. In this context, a Stakeholder Engagement Plan is required to identify the different stakeholders (project affected parties and other interested parties, including the disadvantaged or vulnerable). Stakeholder engagement should be an ongoing process.	Within the scope of the Project, a Stakeholder Engagement Plan have been prepared, which includes the subjects of stakeholder engagement activities and grievance mechanism. Vulnerable/disadvantaged groups and individuals have been identified in the SEP prepared under the project and disclosure and stakeholder engagement activities on the channels through which these groups and individuals can submit their grievances have been included.

International Agreements and Conventions:

The international agreements, and conventions, that Türkiye ratified, are provided as in below:

- Paris Agreement (2021),
- UN Framework Convention on Climate Change (UNFCCC) (2004),
- Rio Declaration on Environment and Development and Statement on Forest Principles (1992),
- Convention on Biological Diversity (Rio Convention) (1992),
- Paris Convention on the Protection of the World Cultural and Natural Heritage (1975),
- Barcelona Convention on the Protection of the Mediterranean Sea Against Pollution (1976),
- The Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) (1981),
- Bern Convention on Protection of Europe's Wildlife and Living Environment (1982),
- Vienna Convention for the Protection of the Ozone Layer (1988),

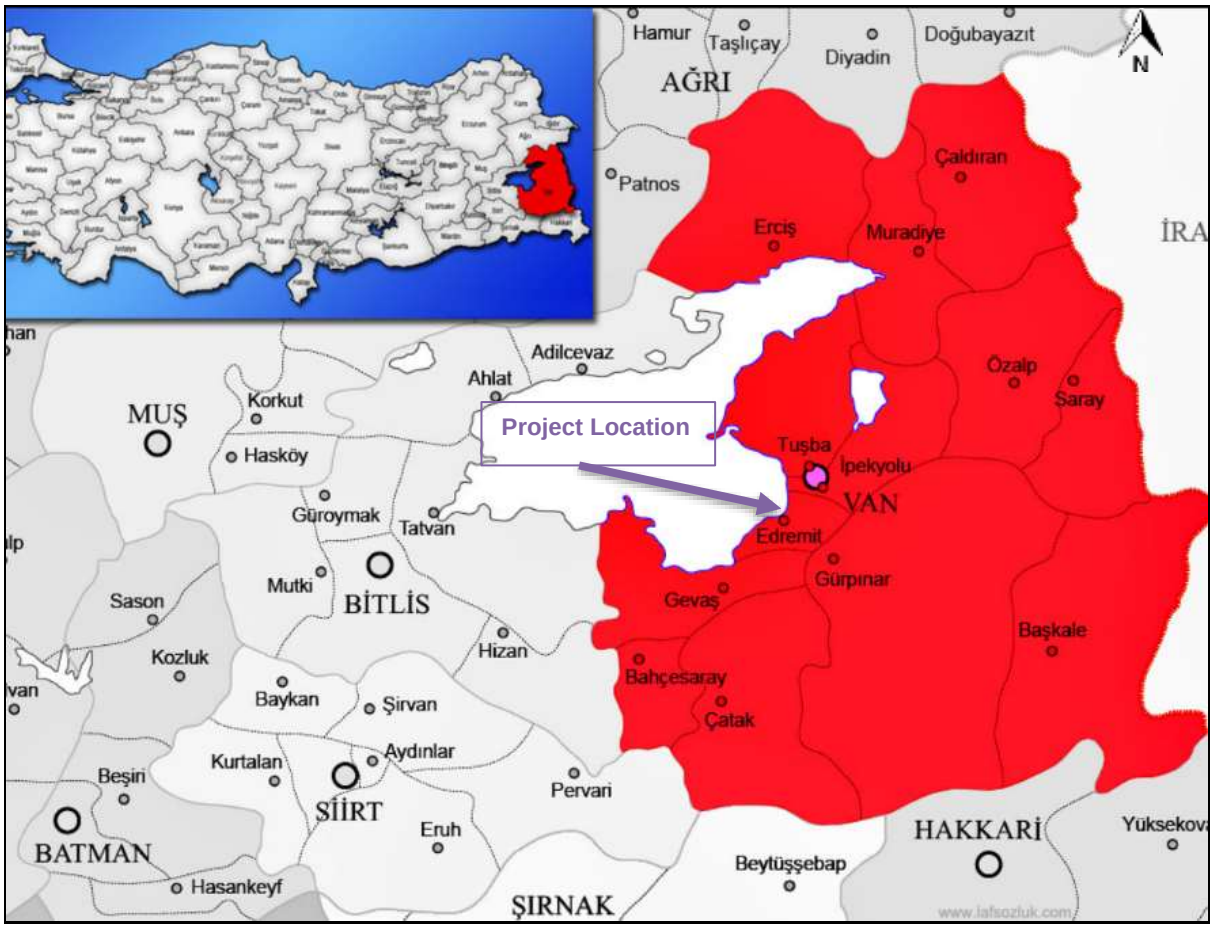
- Montreal Protocol on Substances Depleting the Ozone Layer (1990),
- Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (1994),
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (1996),
- UN Convention to Combat Desertification (1998),
- United Nations Europe Economic Commission Convention on Transboundary Effects of Industrial Accidents (2000),
- Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) (2001),
- Stockholm Convention on Persistent Organic Pollutant (2010),
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) (1972),
- Mediterranean Sea Protocol Concerning Specially Protected Areas and Biodiversity (1988), including related protocols,
- International Labor Organization (ILO) Convention on Forced Labor (1930),
- ILO Convention on Freedom of Association and Protection of the Right to Organize (1948),
- ILO Convention on Right to Organize and Collective Bargaining (1949),
- ILO Convention on Equal Remuneration (1951),
- ILO Convention on Abolition of Forced Labor (1957),
- ILO Convention on Discrimination (Employment and Occupation) (1958),
- ILO Convention on Worst Forms of Child Labor (1999).

The Project will comply with both national legislation and international standards. In case those differ, the most stringent requirement will be met. Moreover, the up-to-date legislation will be followed.

2 Site / Location Description

The project area is located in Van province, Edremit district, Bakımlı neighborhood, Dağ locality, parcel number 890. Location of Van Province and Edremit District is shown in *Figure 2-1:*

Figure 2-1.Location of Van Province and Edremit District



VASKİ SPP 32 MWe project is planned in VAN province Edremit district Bakımlı neighborhood 0 block 890 parcel. The main parcel numbered 890 is divided into two separate parcels, 926 and 927. The project will be realized on parcel 926.The parcel in question has an area of 1.205.685,16 m^2 and 460.800 m^2 of it will be used for the project area. The ownership of the site belongs to the treasury and has been allocated to VASKİ, which is the owner of the activity. The land title deed is included in *Annex-C.*

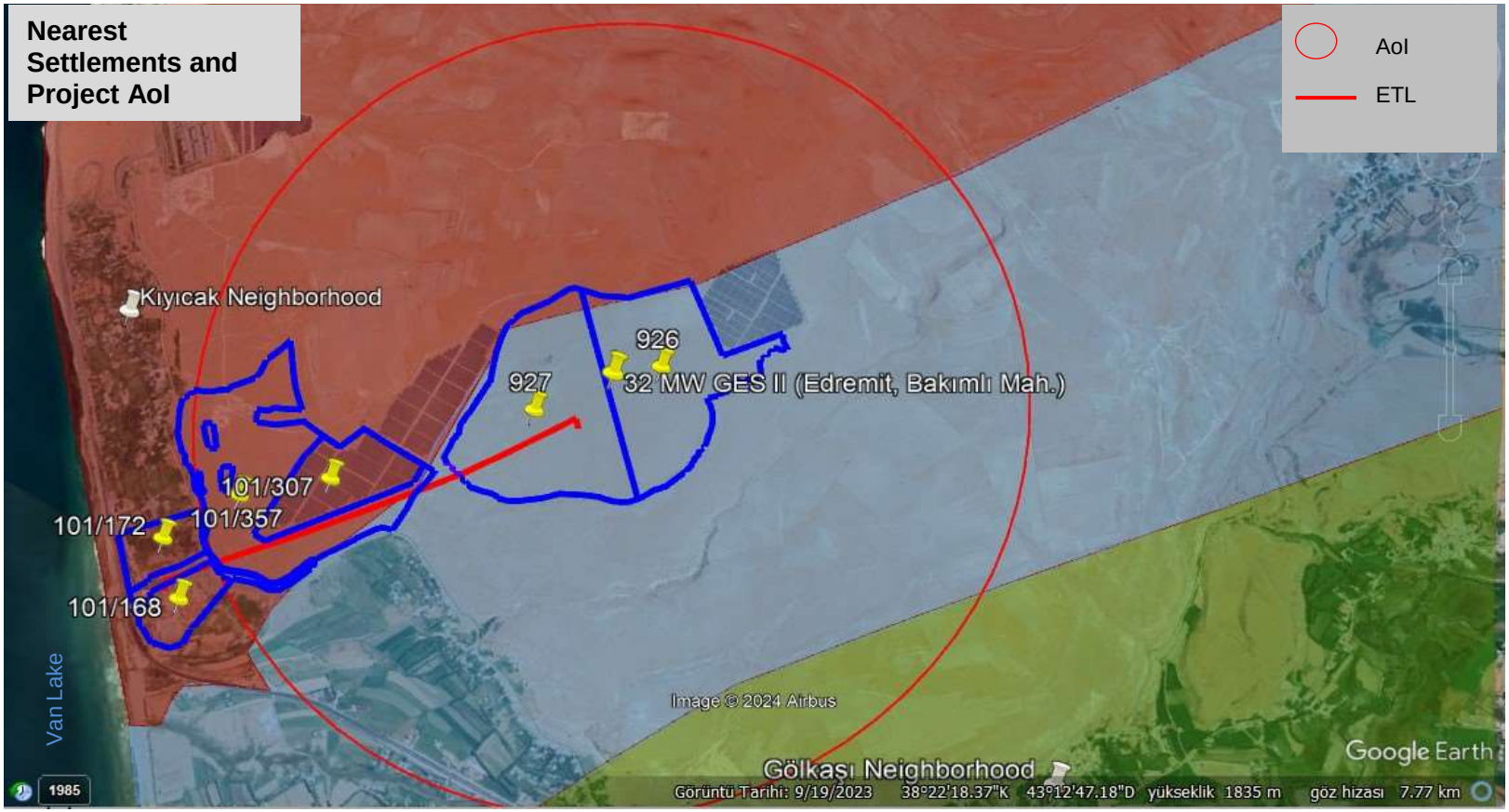
According to WB ESSs, "where the project involves specifically identified physical elements, matters and facilities that are likely to create impacts, environmental and social risks and impacts shall be identified in the context of the project's Area of influence (AoI)". Thus, AoI of the project consists of urban or rural areas likely to be affected by the project, its activities and facilities that are directly owned, operated, or managed (including by contractors). The Project AoI consists the environmental and social aspects within the following: Project site, surrounding settlements (Bakımlı, Gölkaşı and Kıyıcak Neighborhoods), Project access roads and ETL routes. When a circle with a radius of 2 km is drawn to determine the AoI from the project area, it is seen that there are three neighborhoods nearest to it (see *Figure 2-3*). These neighborhoods are Bakımlı, Gölkaşı and Kıyıcak. While determining the 2 km distance, environmental and social impacts caused by the Project have been taken into consideration and it is foreseen that these impacts will remain within the determined distance. All residents of neighborhoods within the AoIare defined as affected groups. The issue is addressed in detail in the Stakeholder Engagement Plan (SEP) prepared by MGS under the Project.

The satellite view of the nearest settlements and their distances to the Project area is given in the *Figure 2-2* below. As can be seen from the figure, the closest settlement to the Project area is Bakımlı neighborhood, which is 420 m away and Edremit district center is 4.7 km away.

Figure 2-2. Project Area

An Energy Transmission Line (ETL) will be constructed within the scope of the Project. There is no private land along the route of the ETL, preliminary permits have been obtained for the line passing through public land. The relevant authorization letter is in *Annex- G.* A map showing the ETL is given in the *Figure 2-3.* The planned line will be connected to ENGİL TM, which is 2,162 meters away. The line, with a voltage of 31.5 kV, is planned to pass underground. The requirements of the WB ESF and ILBANK ESMS will be complied with during the construction of the ETL.

Figure 2-3.Nearest Settlements and Project AoI

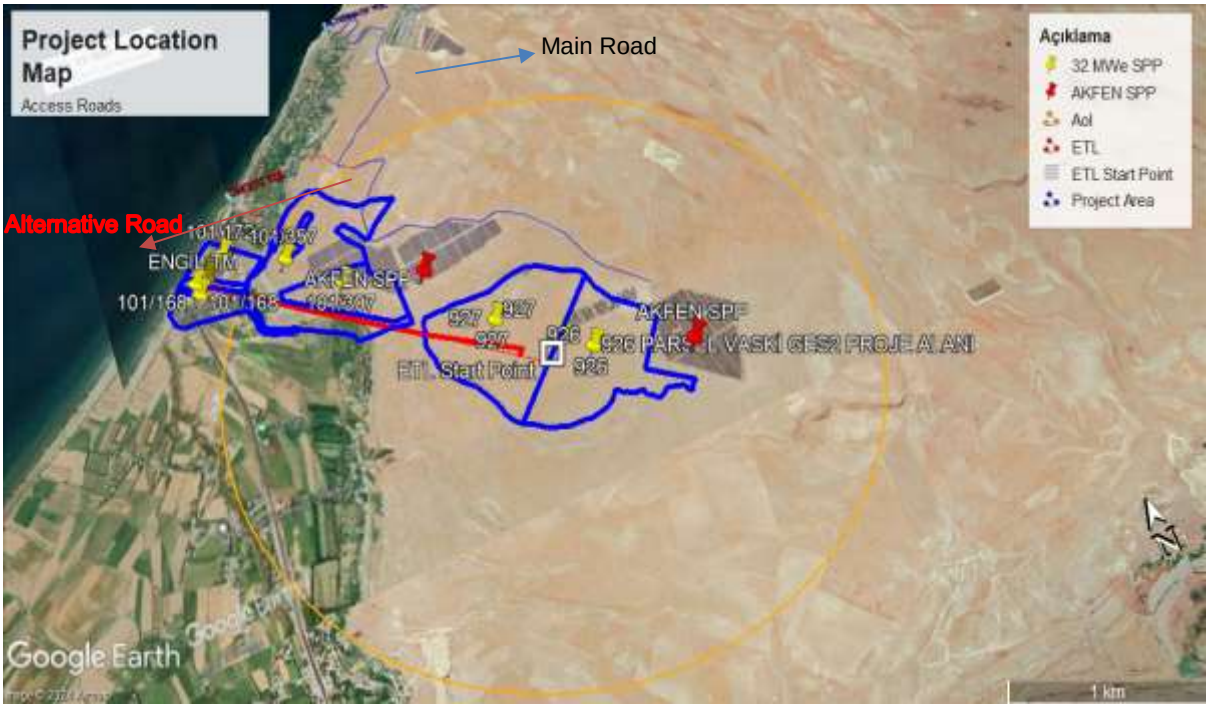


2.1 Access Road

Access to the main parcel numbered 890, which is divided into two separate parcels numbered 926 and 927 (the Project will be realized on parcel numbered 926), is provided via existing roads and no new road work will be carried out within the scope of the Project. There are existing roads around the Project area. Access to the Project area is provided from the Bitlis-Van highway (D-300) at the Bakımlı and Kıyıcak neighborhood road junction. The main road access to the project area is shown in the *Figure 2-4* below. Moreover, there is an alternative road from Bakımlı and Kıyıcak neighborhoods to the Project area. However, road between the neighborhoods is very narrow and may pose danger to the surrounding households. Utilization of this alternative route should be avoided as it passes through the settlements and if there will be a requirement to use that route then specific precautions should be addressed. The main route determined for the Project will be communicated to all Project employees and warning signs will be placed on the route to be used to enter the Project area.

On the other hand, in case the road passing through the neighborhoods is used, all employees will be trained on traffic, and large vehicles that will be used to transport the panels will be prevented from entering this road. In addition, warning signs indicating speed limits and pedestrian crossing will be placed on this road.

Figure 2-4.Road Map Showing Access to the Project Area



2.2 Environmental and Social Baseline Conditions

This section contains information on the physical, biological, and socioeconomic environment of the Project area including the ETL, and its immediate surroundings. Descriptions and information provided in this chapter, regarding current conditions of the Project area and its vicinity, are based on data acquired from and reports prepared by related public and private institutions (the Ministry of Agriculture and Forest, the Disaster Emergency Management Presidency, the General Directorate of Meteorology, the MoEUCC, Chamber of Industry and Trade, Turkish Plants Data Service, Turkish Statistical Institute, Central Black Sea Development Agency, Provincial Sectoral Action Plans etc.), field studies conducted for identification of physical, biological, and socio-economic environment, Geographical Information Systems (GIS) studies and satellite imagery.

2.2.1 Physical Environment

Land Use:

The EIA project area determined as the project area is located on parcel 890. Parcel 890 is divided into 2 parcels as 926 and 927 and the activities will be carried out on parcel 926. The parcel in question has an area of 1.205.685,16 m^2 and its ownership belongs to the treasury and has been allocated to VASKİ, which is the owner of the activity. The activity area is located in "Meadow-Vereland" in the 1/100.000 scale Environmental Plan (*see Figure 2-5*).

Figure 2-5.1/100000 Scale Environmental Master Plan

Photographs of the land where the Project will be realized are given in the *Figure 2-6* and *Figure 2-7:*

Figure 2-6.Land Photograph

Figure 2-7.Land Photograph

As mentioned in *Section 2*, the land belongs to VASKİ, and the title deed information is given in *Annex-C*. Moreover, during stakeholder interviews conducted within the scope of the Project, it was stated that the Project area is not currently used by the local community.

Since the land qualification of the parcel designated as the project area is pasture, the necessary evaluations were made by the Van Pasture Commission and the entire parcel numbered 890 1.205.685,16 m^2 area within the scope of the Solar Power Plant Project was decided within the scope of Pasture Law No. 4342. 06.01.2023 dated Land Class Change letter is given in *Annex-D.*

Geology and Seismicity

Earthquakes with magnitude 4 and above between 1980 and October 2022 within a 240 km radius, centered on the project area, were selected. Values of 4 and above were used in the calculations. The earthquakes used in the calculations were downloaded from the Turkey Earthquake Catalog of the Disaster and Emergency Management Presidency, Earthquake Department. Earthquakes were selected by circular search on the mentioned website.

According to the new Earthquake Hazard Map of Turkey, the maximum acceleration value (PGA 475) of the Project area is 0.252 g. A screenshot taken from the application is given in *Figure 2-8.* The Geology Map of the Project Area shown on *Figure 2-9.* The locations of the faults in the project area are given on the map in *Figure 2-10.*

Figure 2-8.Earthquake Risk Map of Project Area

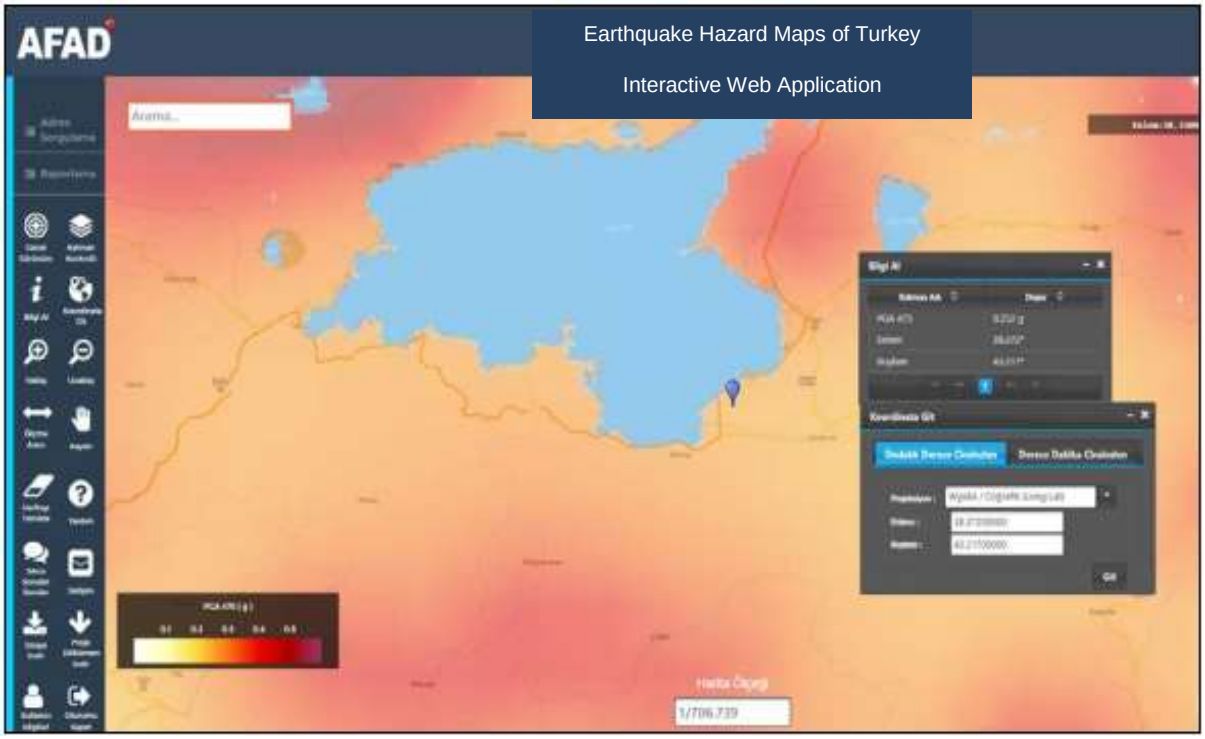


Figure 2-9.Geology Map of the Project Area

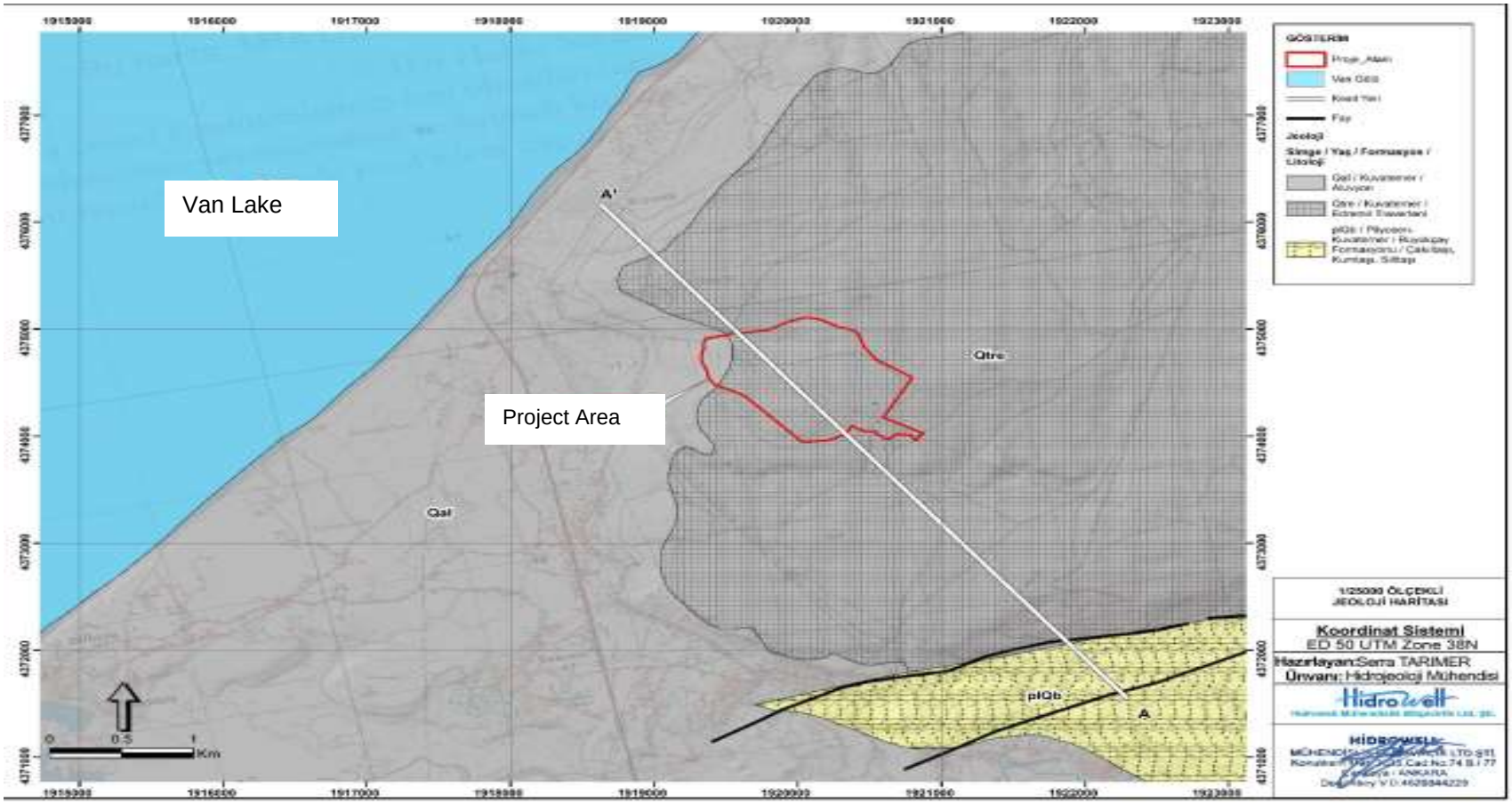
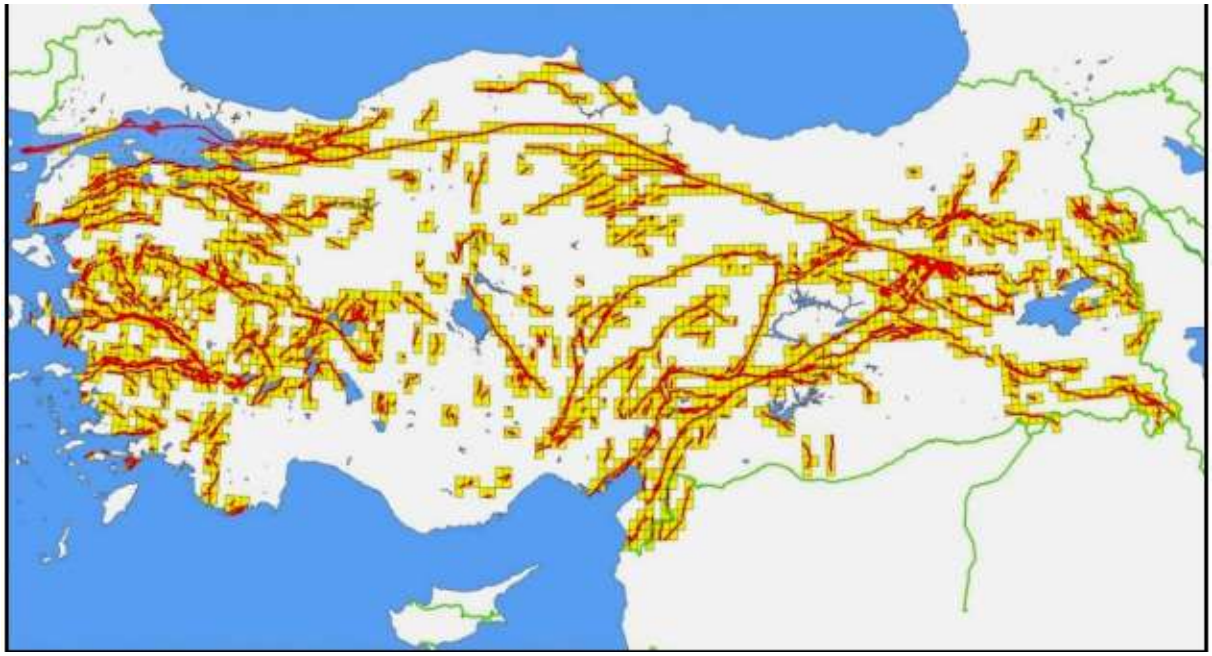


Figure 2-10.Active fault lines within the boundaries of the Project Area

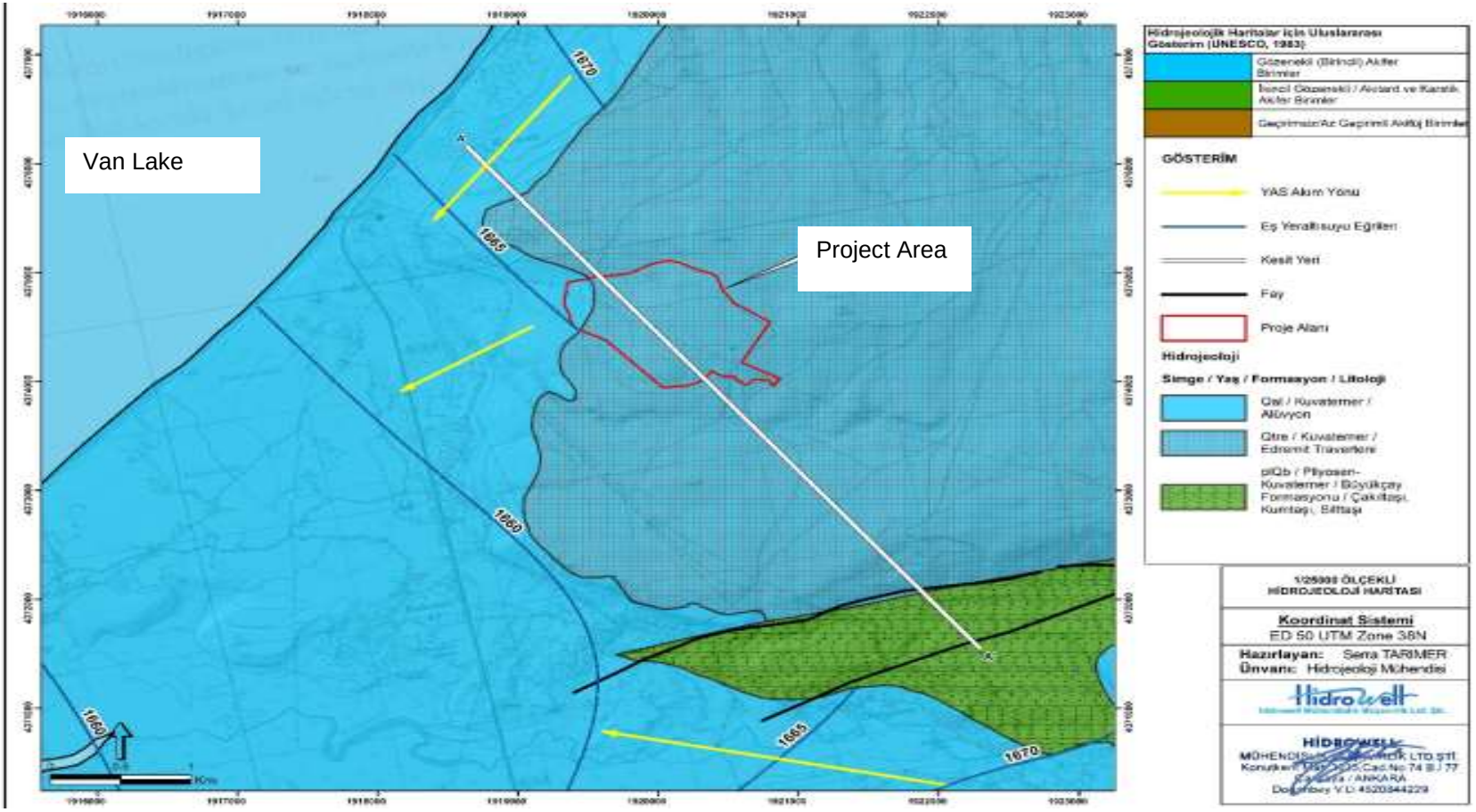


Hydrology and Hydrogeology

No groundwater was encountered during the studies conducted in the study area. No structure that would create a negative impact in terms of surface waters was observed in the vicinity.

The Hydrogeological Map of the Project Area is shown in *Figure 2-11:*

Figure 2-11.Hydrogeology Map of the Project Area



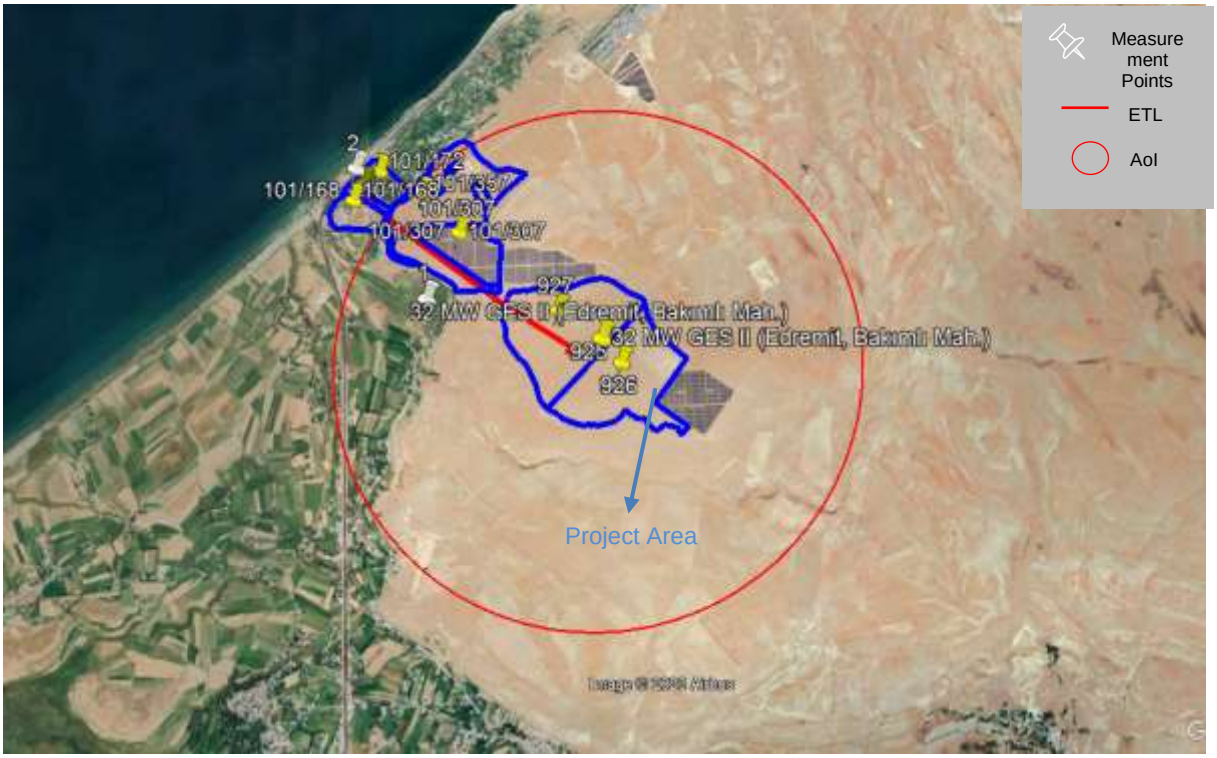
Air Quality

The closest air quality monitoring station to the project area in Van province where the planned project will be realized is the Central station. According to the data of the Central station, the continuous monitoring center of the MoEUCC, the air quality level is "good".

Moreover, air quality baseline measurements were performed within the scope of this ESMP. In order to identify the current PM_{10} and $PM_{2.5}$ concentration levels in the region, the PM measurements have been performed by Karaman Environmental Measurement and Analysis Laboratory and the measurement reports are given in *Annex-E*. PM_{10} and $PM_{2.5}$ measurements were made according to TS EN 12341 test method and with MCZ LVS 1 measuring device. The MCZ LVS 1 is a pump-controlled, time and volume adjustable, electrically operated measuring device.

24-hour PM_{10} and $PM_{2.5}$ measurements were carried out on 11.11.2023 and 13.11.2023, respectively. These measurements were carried out since it was thought that $PM_{2.5}$ and PM_{10} would be the most likely emissions in the background during the construction phase. While determining the sample location in the region within 2 km AoI, a receptor that can represent the current air quality was tried to be selected by considering the prevailing wind direction and topography. The measurement location is shown in the following *Figure 2-12* as point 1 and point 2:

Figure 2-12.Satellite View of the PM2.5 and PM10 Measurement Points



According to the measurement results, the 24-hour PM_{10} and $PM_{2.5}$ concentration values were measured (see *Table 2-1***Hata! Başvuru kaynağı bulunamadı.**). Measured PM_{10} values is below the limit values of national and international standards (Industrial Air Pollution Control Regulation and WBG General EHS Guidelines.) for 24-hour duration. It is observed that the limit values for the measurement made for 24-hour $PM_{2.5}$ are below the limit values of international standards.

Table 2-1.Comparison of Measurement Results with Limit Values

Parameter	Duration	Unit	Measurement Result	Turkish Ambient Air Quality Limit Values		Table 1.1.1: WHO Ambient Air Quality Guidelines
				2019-2023	2024 and after	
Particulate Matter PM_{10}	24-hour	µg/m³	**34.22**	50	50	150 (Interim target-1) 100 (Interim target-2) 75 (Interim target-3) **50 (guideline)**
	24-hour		**33.89**	50	50	150 (Interim target-1) 100 (Interim target-2) 75 (Interim target-3) **50 (guideline)**
Particulate Matter $PM_{2.5}$	24-hour		**2.89**	-	-	75 (Interim target-1) 50 (Interim target-2) 37.5 (Interim target-3) **25 (guideline)**
	24-hour		**2.47**	-	-	75 (Interim target-1) 50 (Interim target-2) 37.5 (Interim target-3) **25 (guideline)**

The U.S. Air Quality Index, or AQI, is EPA's tool for communicating daily air quality. It uses color-coded categories and provides statements for each category that tell you about air quality in your area, which groups of people may be affected, and steps you can take to reduce your exposure to air pollution. It's also used as the basis for air quality forecasts and current air quality reporting.

To characterize the air quality in a particular region, measurement stations are evaluated within the scope of the AQI, which is determined by countries according to their own limit values and pollution classification. The limit values of AQI for 24-hours average defined by MoEUCC are described in *Table* 2-2. According to AQI, PM10 concentration values measured in Edremit District were defined as "Good", while PM2.5 was defined as "Good".

Table 2-2.Air Quality Index Level

Air Quality Index (AQI)	Index Levels (µg/m³)		Description
	PM10	PM2.5	
Good	0-50	0-12	Air quality is satisfactory and air pollution poses little or no risk.
Moderate	51-100	12-35.4	Air quality is favorable but for a very small number of people who are unusually sensitive to air pollution, some pollutants may be of moderate health concern.
Unhealthy for Sensitive Groups	101-150	35.5-55.4	Health effects may occur for vulnerable groups. The public is unlikely to be affected.

Air Quality Index (AQI)	Index Levels (µg/m³)		Description
	PM10	PM2.5	
Unhealthy	151-200	55.5-150.4	Anyone can begin to experience health effects, serious health effects for vulnerable groups.
Very Unhealthy	201-300	150.5-250.4	It can create a health emergency. The entire population is likely to be affected.
Hazardous	301-500	250.5-500.4	Health alert: Anyone can experience more serious health effects.

Noise

In Türkiye, the Regulation on Environmental Noise Control published in the Official Gazette dated 30.11.2022 and numbered 32029 regulates the environmental noise. The regulation sets noise limits applicable to various areas (e.g., industrial areas, residential areas, or combination of both) for three time periods. Similarly, WBG General EHS Guidelines sets limits for noise for two types of receptors and two time periods. The guideline requires that noise levels do not exceed the given levels or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site. The limit values of national and international standards are summarized in *Table 2-3* and *Table 2-4:*

Table 2-3.Environmental Noise Level Limit Values

Noise Source	Measured Parameter	Environmental Noise Level		
		Day (07:00 - 19:00)	Evening (19:00 - 23:00)	Night (23:00 - 07:00)
Industrial facilities, transportation resources	**$LA_{eq,5min.}$**	**65 dB(A)**	**60 dB(A)**	**55 dB(A)**
Workplaces(2)	$LA_{eq,5min.}$	Background + 5 dB(A)		Background + 3 dB(A)
In case of more than one workplace(3)	$LA_{eq,5min.}$	Background + 7 dB(A)		Background + 5 dB(A)
All resources	LC_{max}	100 dB(C)		

(1): These limit values are valid as of 31.12.2023. These limit values are provided in every 1/3 octave band of the determined frequency range. In the acoustic reports prepared until this date; environmental noise measurement results and the measures determined as a result of the measurement result are included.

(2): Each workplace that contributes to the background noise level is co-responsible for ensuring this limit value. Each workplace takes the necessary measures according to the contribution rates to noise.

Table 2-4.Noise Limit Values of WBG General EHS Guidelines (One-hour Leq-dBA)

Receptor	Daytime (07:00 – 22:00)	Nighttime (22:00 – 07:00)
Residential areas	**55**	**45**
Commercial/industrial areas	70	70

In order to identify the baseline noise level in the region, a background noise level measurement has been performed by Karaman Environmental Measurement and Analysis Laboratory within the scope of the baseline studies of the Project. Measurement have been conducted according to TS ISO 1996-2 / TS 9315 ISO 1996-1 standards for 24 hours. Noise measurement reports are given in *Annex-F.*

Noise measurement device was set for 24 hours on 11.11.2023 and 13.11.2023. The measurement devices have been set in the coordinates of 38.393995°, 43.195802° and 38.393792°, 43.194549° which are the location of Bakımlı and Kıyıcak Neighborhoods. The satellite image showing the measurement location is given in *Figure 2-12.*

Within the scope of the baseline studies of the project, one 24-hour noise measurement was made on 11.11.2023 and 13.11.2023 by Karaman Environmental Measurement and Analysis Laboratory. While determining the noise measurement location, attention was paid to the fact that it was at a point within the 2 km AoI of the Project, since there will be construction during the construction phase of the planned project. The determined measuring point also represents the closest sensitive receptor in the area of influence. Since the measurement points are located in Bakımlı and Kıyıcak Neighborhoods, the measurement standards are evaluated under "Residential areas". The evaluation of the measurement results was made according to Regulation on Environmental Noise Control. and WBG General EHS Guidelines. In this direction, the measurement results do not exceed the limit value of “Industrial facilities, transportation resources” specified in the Regulation on Environmental Noise Control (*see Table 2-5*).

Table 2-5.Result of Baseline Noise Measurement

Standards	Period	Noise Limit Values (Leq dBA)	Measurement Results A- Band Weighting Leq (dBA)
National	Daytime (07:00 – 19:00)	65	50.6
	Evening (19:00 – 22:00)	60	
	Nighttime (22:00 – 07:00)	55	40.2
	Daytime (07:00 – 19:00)	65	54,4
	Evening (19:00 – 22:00)	60	
	Nighttime (22:00 – 07:00)	55	49.8
WBG Noise Level Guidelines	Daytime (07:00 – 22:00)	55	50.6
	Nighttime (22:00 – 07:00)	45	40.2
	Daytime (07:00 – 22:00)	55	54.4
	Nighttime (22:00 – 07:00)	45	49.8

Only at measurement point 2, the limit value of international standards was exceeded at night. Traffic and industry noise can be stated as the reason for the difference between day and night.

During the construction phase of the Project, there will be 7 vehicles in the Project area. In the event that material transportation within the scope of the Project passes through residential areas, speed limits will be observed, and unnecessary noise generation will be avoided when sounding the horn.

Cultural Heritage

No cultural heritage assets are expected to be present, but if such a cultural asset is encountered, the construction works should be stopped by informing the relevant national authorities (Van Regional Directorate for the Protection of Cultural Assets). The Chance Finds Procedure is prepared (*see Annex-B*), and the construction works will be implemented according to this procedure.

The closest cultural heritage to the Project area is Edremit Castle, 6.73 km away and Dilkaya Mound, 5.66 km away (see *Figure 2-13).*

Figure 2-13. Closest Cultural Heritage to Project Area

Zivistan Castle is located approximately 1.5 km southeast of the Elmalık neighborhood, 12 km from the Van city center. It is anticipated that these structures will not be affected by project activities.

Moreover, during the site studies, mukhtars, local authorities and residents were questioned about the presence of cultural heritage in Project AoI. No tangible or intangible cultural heritage assets that may be adversely affected by the Project were identified.

2.2.2 Ecology and Biodiversity

This section has been developed in order to examine the status of the ecosystem and biodiversity in the Project area and its immediate surroundings, to reveal the flora and fauna inventory, to identify endemic, rare or endangered taxa, to determine the endangerment categories of the identified taxa according to WB ESS-6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (WB ESS-6). WB ESS-6 defines natural habitat and critical habitat as follows: Natural habitats are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition. On the other hand, critical habitat is defined as areas with high biodiversity importance or value, including:

(a) Habitat of significant importance to Critically Endangered or Endangered species, as listed in the IUCN Red List of threatened species or equivalent national approaches;

(b) Habitat of significant importance to endemic or restricted-range species;

(c) Habitat supporting globally or nationally significant concentrations of migratory or congregatory species;

(d) Highly threatened or unique ecosystems; and

(e) Ecological functions or characteristics that are needed to maintain the viability of the biodiversity values described above in (a) to (d).WB ESS-6 aims to:

- To protect and conserve biodiversity and habitats,
- To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity,

- To promote the sustainable management of living natural resources and,
- To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.

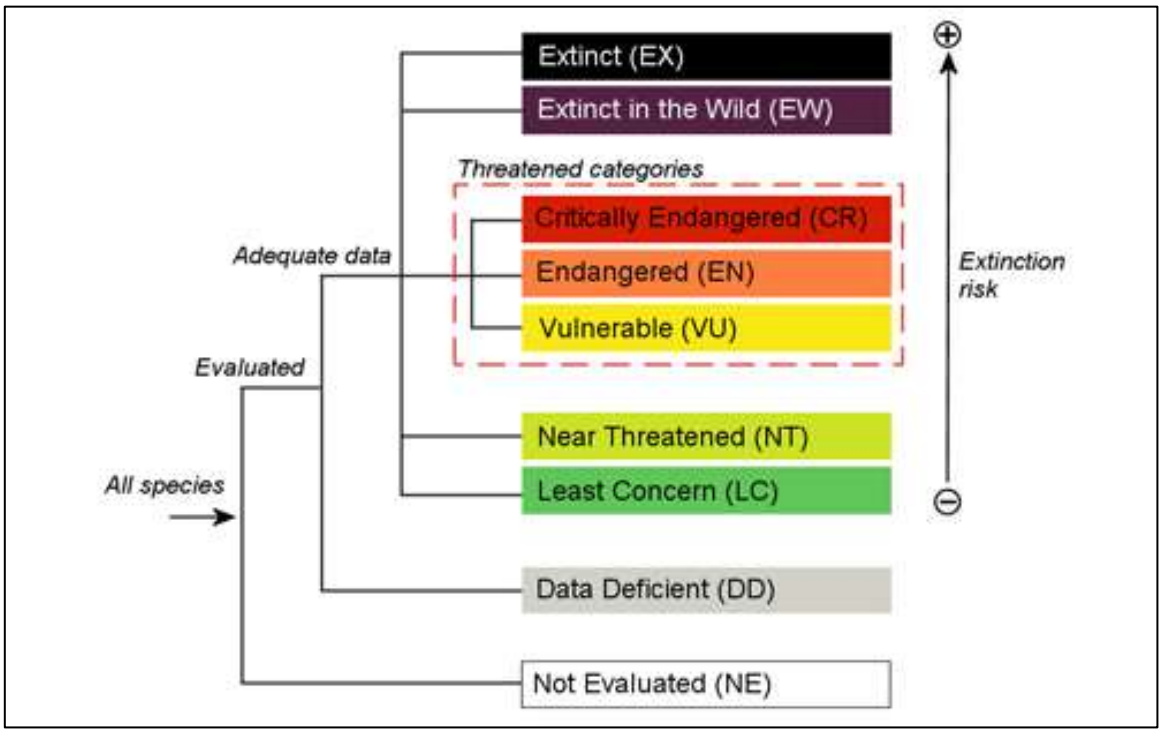
A field study was carried out on November 14, 2023 by Biologist Gözde YURTTAŞ from MGS in order to determine the migration movements and flight corridors of birds, especially with the ornithological structure, and to reveal the protection measures to be taken against the effects of the activity on flora and fauna.

The IUCN Red List Classes and Criteria are designed as an easily understood system for classifying species at high risk of global extinction (see *Figure 2-14*). The purpose of this system is to establish a clear and objective method for classifying different species according to their risk of extinction. However, while the Red List draws attention to species at high risk of extinction, it is not the only way to prioritize conservation measures. Comprehensive consultations and tests during the development of the system have shown that the system yields solid results for most living things. Although the system consistently places species in threat classes, the criteria used do not consider the biological characteristics of each species.

Purposes of IUCN Red List Classes and Criteria;

- To provide a system that can be applied consistently by different people;
- To increase the objectivity of assessments with an easy-to-understand guide to the assessment of the various factors affecting burnout risk;
- To provide a system by which very different species can be compared;
- To enable users of threatened species lists to understand how each species is classified.

Figure 2-14.Structure of the Categories[2]



The Convention on the Protection of European Wildlife and Habitats was signed in Bern on the 19th day of September 1979 and was published in the Official Gazette dated 20.02.1984 and numbered 18318.

The purpose of the Convention is to conserve wild flora and fauna and their habitats, especially to ensure the protection of those that require the cooperation of more than one state and to develop this cooperation.

- Appreciating that wild flora and fauna is a natural heritage of aesthetic, scientific, cultural, recreational, economic and original value, which must be preserved and passed on to future generations,
- Recognizing the fundamental role played by wild flora and fauna in the continuity of biological balance,
- Noting that many species of wild flora and fauna are seriously endangered, and some are in danger of extinction,
- Recognizing the need for international cooperation in the conservation of wild flora and fauna, to be considered by governments in their national goals and programs, and in particular in the conservation of migratory species, this convention was adopted.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): The CITES Convention is a contract that binds the import and export of wild animal and plant species between the contracting countries, in short, international trade with certain permits and documents. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild, and it accords varying degrees of protection to more than 35,000 species of animals and plants. In order to ensure that the General Agreement on Tariffs and Trade (GATT) was not violated, the Secretariat of GATT was consulted during the drafting process.

[2] IUCN. (2012). *IUCN Red List Categories and Criteria: Version 3.1.* Second edition. Gland, Switzerland and Cambridge, UK: IUCN. iv + 32pp

Appendices lists and explanations of the CITES Convention are given in *Table 2-6:*

Table 2-6.Appendices lists and explanations of the CITES Convention

Appendices	Explanations
Appendix-I	It covers all species that are or may be affected by trade and are in danger of extinction. Trade in specimens of these species must be subject to particularly strict regulations and only be permitted in exceptional circumstances, in order not to expose their descendants to further endangerment.
Appendix-II	(a) Species that are not currently in absolute danger of extinction but may become extinct unless trade in specimens is subject to strict regulations to prevent use incompatible with their survival; and (b) other species which must be regulated so that Trade in specimens of certain species referred to in subparagraph (a) can be effectively controlled.
Appendix-III	About 170 species, are species that are listed after one member country has asked other CITES Parties for assistance in controlling trade in a species. The species are not necessarily threatened with extinction globally. In all member countries, trade in these species is only permitted with an appropriate export permit and a certificate of origin from the state of the member country who has listed the species.

Detailed information on flora and fauna inventories based on the field work carried out within the scope of the Project is given below.

Flora

The dominant vegetation (vegetation type) in the project area and its immediate surroundings is steppe.

Within the scope of the field studies that was carried out by MGS Biologist Gözde YURTTAŞ on 14th November 2023 in the project area, 14 plant taxa belonging to 6 families were identified. All of the identified taxa belong to Seed Plants [Magnoliophyta (Spermatophyta)].

The plant taxa included in the flora list are not included in the IUCN (The World Conservation Union: The International Union for the Conservation of Nature and Natural Resources) Red List Categories.

There are no rare and endangered plant species in and around the activity area that need to be protected according to the Annex I list of the "Convention for the Conservation of European Wildlife and Habitats (Bern Convention)".

There are no endemic species in and around the activity area. There is no danger of extinction as a result of the destruction in the activity area.

The plant taxa identified in and around the Project area have been evaluated within the scope of ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources standards and there are no plant species that need to be taken under protection.

The Project area consists of pastureland. There are continuation of the same vegetative structure and agricultural areas around the project area. Due to the use of the land as pastureland, the area is under intense grazing pressure. For this reason, the area cannot preserve its natural structure.

Since the plant species identified in the project area are widely distributed around the project area, the floristic structure and species composition in the field are similar to the surrounding structure, and the land structure and vegetation cover in the project area will only undergo a limited and tolerable change within the ecosystem, it is considered that the planned project will not cause serious damage in terms of plant ecology.

Photographs of the plant species observed during the field studies carried out within the scope of the project are given in the figure.

Figure 2-15.Verbascum oreophilum

Figure 2-16.Centaurea virgata

Figure 2-17.Onopordum candidum

The taxa identified in the field do not pose any risk within the scope of WB ESS-6 since they are "Least Concern (LC)".

The list of plant taxa observed and identified within the scope of the field studies carried out in the project area is given below *Table 2-7.*

Table 2-7.Flora Species Detected in the Project Area and Surroundings

Species	Turkish Name	Habitat	Phytogeographic Region	Height (m)	Frequency	Risk Categories		Endemism	Detection
						IUCN	BERN		
Centaurea glastifolia	Kotankıran	meadow, rocky slope	İran-Turan	1500-2500	3	-	-	-	G, L
Achillea vermicularis	Püşan	steppe, rocky slope, sandy slope, alpine meadow	İran-Turan	1200-3500	3	-	-	-	G, L
Crepis sancta	Yaban kıskısı	forest, rocky volcanic slope, rocky limestone slope, Artemisia - steppe, lush grassy slope	-	0-2450	3	-	-	-	G, L
Onopordum candidum	Kalafat dikeni	Rocky slope, degraded steppe, fallow field, road edge	İran-Turan	1100-2200	3	-	-	-	G, L
Centaurea virgata	Acı süpürge	Arid hills, steppe, arid wasteland	İran-Turan	100-2000	4	-	-	-	G, L
Xanthium spinosum	Küçük pıtrak	arid hillside, empty space	-	10-1750	3	-	-	-	G, L
Sinapis arvensis	Hardal otu	roadside, empty space	-	0-1800	3	-	-	-	D, G, L
Ranunculus polyanthemos	Çünk	damp place	-	600-2700	3	-	-	-	G, L
Eryngium billardieri		rocky slopes, steppes, fallow fields	İran-Turan	1400-3810	3	-	-	-	G, L

Species	Turkish Name	Habitat	Phytogeographic Region	Height (m)	Frequency	Risk Categories		Endemism	Detection
						IUCN	BERN		
Medicago sativa subsp. sativa	Kara yonca	Steppe, rocky and grassy slopes, dense oak thickets, meadows, dunes, fields	-	0-2500	2	-	-	-	G, L
Astragalus ponticus	Zümra geveni	dry shores, fields, roadsides	-	900-2800	3	-	-	-	G, L
Verbascum oreophilum var. joannis		steppe, grasslands, meadows, bush, leaves deciduous forests	İran-Turan	900-2700	3	-	-	-	G, L
Setaria viridis	Yeşil sıçan saçı	degraded lands, gardens	-	0-2300	2	-	-	-	G, L
Stipa pontica	Körpe kılaç	steppe, mountain slopes	-	300-3200	2	-	-	-	G, L

Possible Impacts of Project on Flora and Precautions to be taken:

Dust emission may accumulate in the leaf blades, flowers, etc. organs of flora taxa, affecting both photosynthesis and respiration of the plant and causing slowdowns in the normal development process. Therefore, in order to prevent dust emission, the work area will be regularly irrigated with a water truck.

After the project activities, the disturbed areas can be easily rehabilitated with plants from the natural flora of the region. For this reason, it is extremely important for the balance of the ecosystem that the natural plants of the region are preferred when selecting plants for landscaping purposes.

Fauna

Amphibias

The Amphibian species identified by observation in the project area is listed in Bern Annex-III.

According to the IUCN Red List Categories List, the identified Amphibian species is in the "LC (Least Concern)" category.

The endangerment of the Amphibian species identified in the project area is not in question today.

Table 2-8.Amphibian Species Identified, Their Conservation Status and Status

FAMIY	LATIN NAME	TURKISH NAME	HABITAT	IUCN	BERN	MAK	END	Detection
RANIDAE	*Rana camerani*	Şeritli Kurbağa	Waterbanks, Meadows, Steppes	LC	Ek-III	-	-	L, G

Reptiles

The Reptile species observed and identified in the project area is included in Bern Annex II list.

According to the IUCN Red List Categories List, the identified Reptile species is in the "LC (Least Concern)" category.

The endangerment of the Reptile species identified in the project area is not in question today.

Table 2-9.Detected Reptile Species, Conservation Status and Status

FAMİLYA	LATIN NAME	TURKISH NAME	HABITAT	IUCN	BERN	MAK	Detection
COLUBRIDAE	*Natrix tessellata*	Su yılanı	Waterfronts	LC	EK-II	-	L, G

Birds

There are 7 bird species belonging to 6 families identified by observation in the project area.

Of the 7 bird species observed and identified in the project area, 5 are included in the Bern Annex-III list and 2 are included in the Bern Annex-II list.

Of the 7 bird species observed and identified in the project area, 6 are in the "LC (Least Concern)" category and 1 is in the "NT (Near Threatened)" category.

The endangerment of bird species in the activity area and its immediate vicinity is not in question today.

Table 2-10.Identified Bird Species, Conservation Status and Status

FAMİLYA	LATIN NAME	TURKISH NAME	ENGLISH NAME	HABITAT	IUCN	RDB	STATUS	BERN	MAK	Detection
ACCIPITRIDAE	*Buteo rufinus*	Kızıl Şahin	Long-Legged Buzzard	Steppe, agricultural land, forest edges with open areas around	LC	A.3	Y	EK-III	-	L, G
	Accipiter nisus	Atmaca	Eurasian Sparrowhawk	Agricultural land in wooded steppe, divided by tree and shrub borders and park-garden	LC	A.3	Y	EK-III	-	L, G
LARIDAE	Larus armenicus	*Van Gölü Martısı*	Armenian Gull	Crowded populations occur in high mountain lakes where predators are few; In our country, especially crowded populations are found in Tuz Gölü, Van Lake and Beyşehir lakes.	NT	A.3	Y	EK-III	EK-I	L, G, D
STRIGIDAE	Athene noctua	*Kukumav*	Little Owl	in rural areas near fields and gardens	LC	A.2	Y	EK-II	-	L, G
CORVIDAE	Pica pica	*Saksağan*	Magpie	Agricultural areas, sparsely wooded areas and bushes	LC	A.5	Y	EK-III	EK-II	L, G, D
STURNIDAE	Sturnus vulgaris	*Sığırcık*	Starling	Sparse forests, open lands with sparse trees, agricultural lands, olive groves, parks, orchards, farms and city centers	LC	A.5	Y	EK-III	EK-I	L, G, D
PASSERIDAE	Passer domesticus	*Ev Serçesi*	House sparrow	cracks and holes in buildings and tree holes	LC	A.5	Y	EK-II	EK-II	L, G

In our country, many data on bird migration were collected and migration routes were revealed in the Book of Bird Mobility Maps in Turkey, which is one of the most comprehensive and detailed studies. According to this study, the migration maps of birds are given below *Figure 2-18*.

Figure 2-18.Turkey Bird Migration Bottleneck Map[3]

The Project area is located close to the main migration route according to the Turkey Bird Migration Bottleneck Map. There are existing solar power plants around the project area. For this reason, there are no environmental elements (trees, tree hollows, bushes, etc.) in the project area where bird species can meet their feeding, sheltering, accommodation and breeding needs.

Mammals

There are no mammal species observed and detected in the project area.

Possible Impacts on Fauna and Measures to be taken:

Fauna species will be affected due to the works to be carried out within the scope of the Project. Due to this disturbance, some of these wild animals will be forced to move away from these areas.

Individuals that spontaneously move away will search for suitable, similar habitats in the immediate vicinity. In this case, problems such as the carrying capacity of the sections where wild animals will shelter and competition with other species may occur. However, observations and examinations carried out in the project area have shown that the species do not have dense populations and there is no habitat in the area.

[3] (YMBP, 2010 Bird Diversity and Distribution in Yıldız Mountains. Yıldız Mountains Biosphere Project Report Series No: 6)

In order to prevent damage to fauna species, visual controls will be carried out in the area during the preparation phase before construction, nesting areas will be identified, and then the area will be marked to ensure that fauna species move away from the area without any intervention. Juvenile individuals may also be encountered during visual controls during the works. It may not be possible for juveniles to leave the area on their own. Juveniles and adult individuals that do not move away from the area despite all these techniques will be taken out of the study area using appropriate techniques and in a way that they will not be harmed.

In addition, there are fauna taxa that continue their existence above the soil, as well as amphibians, reptiles and mammals that continue their lives in the area close to the surface of the soil. For the fauna species that continue their lives close to the soil surface, they will be treated more carefully, nest entrances, mounds formed by rodents will be identified and these species will be expected to leave the area spontaneously or they will be captured with appropriate capture techniques and taken out of the study area.

Therefore, it is not expected that the species identified in terms of wild forms that spontaneously move away will find new habitats and that there will be no problems in these areas.

Key Biodiversity Area

Van Plain Key Biodiversity Area (KBA) covers the vast plain, wetlands and wet meadows lying between Lake Erçek and Lake Van, just north of the provincial center of Van. The eastern part of the shores of Lake Van, the islands of Çarpanak and Yaka, the Karasu Delta formed where the Karasu Stream flows into Lake Van, and the Van Reeds are located within the borders of the area. Karasu Stream meanders in the east-west direction in the plain. Gören Mountain, Sabey Mountain and Davutağa Mountain are the highest parts of the area. There are many large and small settlements within the KBA.

There are many small lakes in the plain covered with agricultural areas. In the part of the plain outside the agricultural areas, there are plains and mountain steppes used for grazing. Karasu Stream forms wet meadows between Topraktaş and Çitören villages. In the part where the stream flows into Lake Van, there is a freshwater lagoon and reeds with small water mirrors.

Endangered duck species such as Summer Duck (Marmaronetta angustirostris), Horned Duck (Oxyura leucocephala) and Paspaş Duck (Aythya nyroca) breed in the reeds in the Karasu Delta. Adir and Çarpanak islands are important for breeding Lake Van gulls (Larus armenicus). The globally endangered Lesser Kestrel (Falco naumanni) and Bustard (Otis tarda) also breed in the area. It is estimated that the Caspian Tern (Sterna caspia) breeds on the islands, as well as the Lake Van gull.

The Van Plain is of great importance for the discrete population of the Anatolian Terrestrial (Spermophilus xanthoprymnus) in the Van Basin.

The known world distribution of the snake species Eirenis thospitis falls within the boundaries of the KBA. A significant part of the world distribution of the Subhan lizard (Eremias suphani), one of the narrow-ranging reptile species, lives within the boundaries of the KBA.

The area is one of the most important habitats for the narrow-ranging fish species Capoeta kosswigi and Pearl Mullet (Alburnus tarichi). Alburnus timarensis, a relative of the pearl mullet, is another species that lives only in this area in the world.

Significant populations of five regionally endangered butterfly species live in the Van Plain. The project area is located 20 km away within the Van Plain KBA, IBA. The satellite image showing the distance of the project area to the Van Plain and important natural areas is given below *Figure 2-19:*

Figure 2-19.Project Area and Important Natural Areas

There are no critical habitats within the Project area. However, as seen in *Figure 2-19,* there is the Dönemeç Delta 265 m away. There are no environmental factors (trees, shrubs, etc.) in the Project area where birds can stay. Therefore, it is predicted that Project activities will not have a negative impact on this area.

2.2.3 Social Environment

The main purpose of an ESMP is to identify and assess the potential positive and adverse impacts that may be caused by the Project activities on the natural environment and on the socio-economic wellbeing and conditions of the population (community and workforce) at local and regional level. This following assessment is based on the Project characteristics and activities and the baseline conditions in the Project area.

As a result of this assessment, relevant mitigation measures are developed to avoid, minimize, mitigate and off-set significant adverse impacts and enhancing beneficial impacts. Furthermore, the significance of project-induced residual adverse effects on the environment and community after implementation of the mitigation measures are assessed. And finally, planned monitoring activities for checking effectiveness of the proposed mitigation measures are identified.

According to the information obtained from mukhtars during the consultations conducted within the scope of the SEP, there is no refugees and child-headed households residing in Project AoI. Since there are no refugees in Project AoI, There is no disadvantage that may arise from language differences.Lack

of access to transport budget due to unemployment or poverty, difficult access to activities due to physical disability will cause difficulties in reaching vulnerable/disadvantaged individuals/groups in terms of participation in consultation activities and events. Programmes will be developed for identified disadvantaged/vulnerable groups/persons to facilitate their participation in consultations. Moreover, approximately 640 residents living in the Project AoI reside in different cities on a seasonal basis (summer months) as they are mostly employed in seasonal construction works. Consultation and disclosure activities will also be organized for this category of people during the winter months. If there are any employment opportunities for the unemployed within the scope of the Project, advertisements will be posted in mukhtars' offices and local people will be prioritized for recruitment. The number of individuals who speak Turkish is in the majority, however, Kurdish needs will be taken into consideration in consultation and disclosure activities through the provision of translation services by mukhtars if needed. There are 2,567 female residents living in Project AoI. Therefore, the female population in the AoI constitutes 49.37 % percent of the total population. The literacy rate of women in the region is very low. Therefore, it is difficult for women to participate in stakeholder engagement activities. Moreover, women in the locality have a limited presence in the public sphere. It is recommended to carry out oral information and stakeholder engagement activities with women's groups in Quran courses in neighbourhood mosque.

Project Area's Population

The official population data of Edremit District, taken from the website of the Turkish Statistical Institute (TurkStat), is given in *Table 2-11*:

Table 2-11.Official TurkStat Population Data used for Edremit District[4]

Turkstat-Census Project Area Population Data (2009-2021)	
Year	**Population**
2023	129,604
2022	127,819
2021	128,555
2020	128,557
2019	127,505
2018	125,884
2017	124,375
2016	121,437
2015	118,786
2014	113,999
2013	105,506
2012	26,218
2011	24,677
2010	25,054
2009	24,442

Within the scope of the planned activity, it is planned to employ some of the employees from the settlements close to the activity area. In this way, both the people of the region employment and contribute to the revitalization of the economy in the region, even if only to a small extent.

In 2011, due to the earthquake that occurred in Van province, there was a migration from the surrounding districts to Edremit district (the district where the Project will be realized), which is considered to be

[4] https://biruni.tuik.gov.tr/

relatively less dangerous. Therefore, population increase was observed in the region. These groups are not in the vulnerable group category.

Grievance Mechanism

Under this heading, the issue of Grievance Mechanism has been addressed in order to communicate stakeholders and possible impacts arising from the Project to VASKI and the necessary institutions.

VASKI will implement the grievance mechanism defined and described in the SEP in addition to VASKI's existing tools to receive and facilitate the resolution of concerns and grievances of the Project affected parties arising in connection with the Project, particularly in relation to the environmental and social performance of the Project.

The grievance mechanism established will be proportionate to the risks and impacts of the project and will be provided for all direct workers and contracted workers (and, where relevant, their organizations) to raise workplace concerns.

A Project specific GM is useful for:

- Addressing community and individual concerns, queries, grievances and complaints about the environmental and social aspects of the Project before they escalate beyond control,
- Reducing developers/project executing agencies exposure to litigation and related risks and costs,
- Identify and implement appropriate and mutually acceptable actions to address complaints,
- Establishing a transparent and comprehensive communication between the stakeholders and the VASKİ,
- Ensure that complainants are satisfied with the outcome of the corrective actions and
- Avoid the tendency to resort to judicial proceedings.

GM will enable receiving comments/ grievances in Turkish, there is no need for another language use in the developed GM, since local language is used for everyone. In case of need of other languages, translator will be provided.

GM at National Level

Presidency's Communication Center: The Presidency's Communication Centre (CİMER) has been providing a centralized complaint system for Turkish citizens, legal persons and foreigners. Presidency's Communication Centre (CİMER) will be available to Project stakeholders as an alternative and well-known channel for conveying their Project-related grievances and feedback directly to state authorities.

- www.cimer.gov.tr
- Call Centre (hotline): 150
- Phone number: +90 312 525 55 55
- Fax number: +90 0312 473 64 94
- Address for Official Letter/Petition: Republic of Türkiye, Directorate of Communications Kızılırmak Mah. Mevlana Bulvarı No:144 Çankaya/ANKARA
- Mail addressed to Republic of Turkiye, Directorate of Communications
- Individual applications at the community relations desks at governorates, ministries and district governorates.

Foreigners Communication Center (YİMER) will be available to Project stakeholders as an alternative and well-known channel for conveying their Project-related grievances and feedback directly to state authorities.

- www.yimer.gov.tr
- Call Centre (hotline): 157
- Phone number: +90 312 5157 11 22
- Fax number: +90 0312 920 06 09
- Address for Official Letter/Petition: Republic of Turkiye General Directorate of Migration Management, Çamlıca Mahallesi 122. Sokak No: 4 Yenimahalle/ANKARA
- Mail addressed to Republic of Turkiye, Directorate of Communications
- Individual applications at the Republic of Turkiye General Directorate of Migration Management

GM at Project Level

On the website of VASKİ, there is a Contact (İletişim) page, the mechanism through which the grievances/request related to VASKİ's activities are communicated and resolution process is followed. There is also the communication channel as phone numbers.

Grievances, requests, suggestions, and opinions of public will be recorded through the GM contact person (GMCP) to be assigned by VASKİ.

Project stakeholders will have the opportunity to provide feedback and submit their requests through all communication channels which includes hotline. All applications made through any complaint channel, with or without name, will be accepted. The channels used for applications will be available in Turkish. GM forms and consultation records will be kept in Turkish, however, mukhtars will provide interpreters for people who do not speak Turkish and speak Kurdish at consultation meetings and in the grievance mechanism. All responsible parties of the project (VASKİ and contractor / sub-contractor and PMU) are obliged to record all applications and notify them to the relevant upper stage within the specified time.

Any request can be made orally or in writing (by post or e-mail) or by completing a grievance form. The request form, along with a description of the grievance mechanism, will be made available at common places, websites and construction sites where it can be easily accessed by all relevant stakeholders. The confidentiality principle and the right to make anonymous requests will be reserved throughout the life of the project, and all information regarding the requests received will never be used or shared with third parties for purposes other than the project's confidentiality policy. Anonymous requests will be treated in the same way as all other requests. Anonymous requests will not be responded to, and requesters will be notified of this.

The grievances collected regarding the Project should be recorded on the Request Forms provided in *Annex-I* and then they should be registered in the Grievance Database (*see Annex-J*). Grievance registration forms will be sent to the relevant GM Team member (either Social Expert of the PIU Team or E&S Specialist of Contractor) on the same day (if possible, as soon as the complaint is received). Within two (2) working days after the complaint is received, a notification should be sent to the complainant by GMCP stating that the complaint has been received and being evaluated.

The process will be followed through the Grievance Database Form and Complaint Tracking-Monitoring Form (*see Annex-J and K).* The PIU Team will also have access to the grievance register to be created within the scope of the Project and will be constantly updated by the GMCP or PIU Social Expert.

Grievances from contractors and subcontractors will be forwarded to GMCP by E&S Specialist of Contractor(s) and recorded by GMCP using grievance registration forms. On the same day, it will be opened to the access of PIU Team with the making data entry of the Grievance Register and Grievance Database.

VASKİ and PIU Team will assess the grievances and suggest solutions for employees of direct and contracted employees with the use of this internal GM which will be easily accessible for all project workers.

Apart from the means of Grievance Mechanism presented by the VASKİ as mentioned above, if any internal and external stakeholders and affected groups are not satisfied with the solutions offered by the E&S Team or have requests for a higher-level explanation, complaints / requests / suggestions can be shared at the contact addresses given below.

VASKİ Communication Channels:

- Website: https://vaski.gov.tr/
- E-mail: info@vaski.gov.tr
- Phone: +90(432) 217 17 43
- Address: Halil Ağa Mah. İpekyolu Bulvarı. No: 86/A
- İpekyolu/VAN

İLBANK's Communication Channels:

- Website: https://www.ilbank.gov.tr/
- E-mail: bilgiedinme@ilbank.gov.tr
- Phone: 0 (312) 508 79 79
- Address: Emniyet Mahallesi Hipodrom Caddesi No:9/21 Yenimahalle/ANKARA

On the other hand, when İLBANK directly received a complaint, İLBANK will register and evaluate the complaint.

The normal GM procedure for complaints requiring immediate action may be slow or inappropriate. A separate fast track GM can ensure timely consideration of high priority complaints. In the case of complaints alleging serious harm or risk of harm, and/or serious rights violations, the GM's standard operating procedures will call for a fast-track response.

Applicants, whose complaints could not be resolved through existing GM or whose complaints contains sensitive issues can always apply to the relevant legal institutions. Any case in both the public GM and the worker GM has the option to appeal before it is sent to the legal institutions. Such institutions can be summarized as follow:

- Civil Courts of First Instance,
- Administrative Court,
- Commercial Courts of First Instance
- Labor Courts, and Ombudsman (https://ebasvuru.ombudsman.gov.tr/)

Relevant legal process will be monitored through GM.

Each contractor selected to carry out the construction works will be obliged to establish a GM to receive, record and, where possible, resolve any requests raised by any stakeholder due to the construction works carried out.

Monitoring and Reporting of Grievances

The contractor's E&S Monitoring reports will be prepared on monthly basis and will be submitted to ILBANK through the supervisor consultant and VASKİ. A set of Key Performance Indicators (KPIs) will also be monitored and regularly integrated by the project into the project progress report., demand records.

- Monthly by the Contractor/Sub-contractor to the relevant VASKİ,

- Monthly by the Consultant Firm and the Contractor/Sub-contractor to the relevant VASKİ and PIU GM Contact Person,
- Monthly PMU GM Contact Person by VASKİs must be sent.

The VASKİ's GM contact person will submit monthly reports on the GM to the PIU.

The contractor GM contact person will submit monthly reports to the construction consultant firm.

A supervisor consultant company will be hired by VASKİ for the supervision of the construction phase. GM contact person will submit monthly reports to the VASKİ and PIU.

The PIU will submit monthly reports to ILBANK on the Grievance Record Table containing up-to-date information on the following regarding the GM and ILBANK will submit quarterly reports to the World Bank.

Details regarding with the contents of the monitoring reports are given Project SEP.

Community Health and Safety

An administrative building will be established within the scope of the project. The project area will be surrounded and security cameras will be installed in the area. Within the scope of the project, it is necessary to employ a security guard on site.Moreover, security guards who will work in the project area will be unarmed.

The main road designated for the project area should be used and necessary permits should be obtained if an alternative road is used. The Traffic Management Plan which will be developed under the project will be implemented and all drivers should be trained.

2.2.1 Cumulative Impact

As per WB ESS-4, the potential cumulative impacts of Project activities on traffic and local communities are analyzed under this heading.

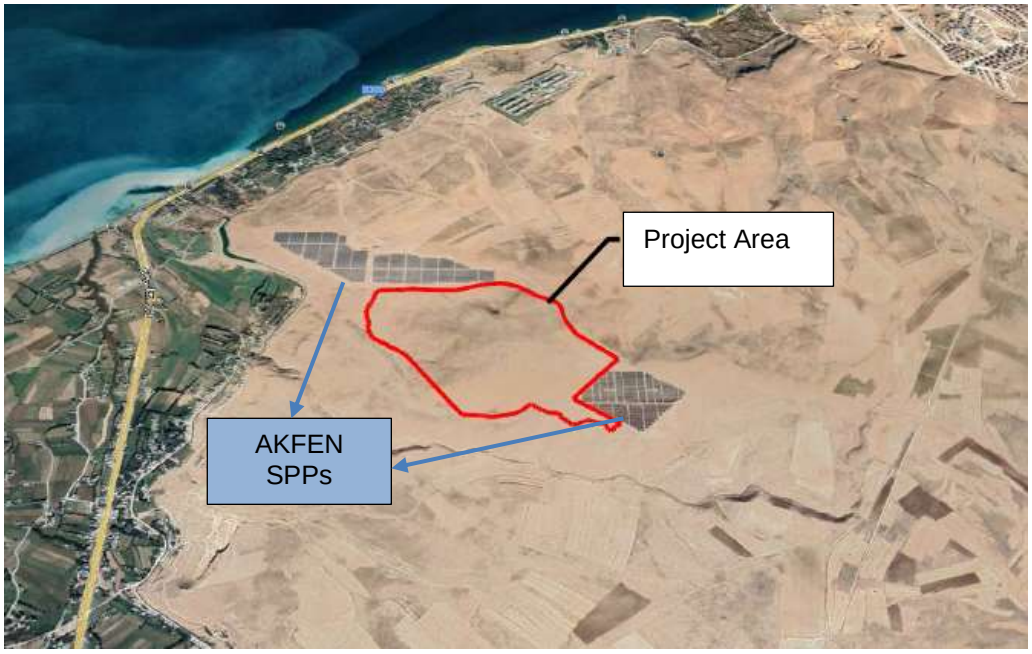
There is also a 20 MW and 10 MW solar power plant of AKFEN in the region where the VASKİ 32 MWe SPP will be established. The distance is approximately 80 meters, and it is also essential to take necessary precautions for situations such as fire etc. (see *Figure 2-20**Hata! Başvuru kaynağı bulunamadı.**).* When sufficient capacity connectivity is not ensured, generation will be constrained when the required power increase in substations is not realized.

Solar power plants may require significant land area for installation of solar panels or solar collectors. This can lead to land use changes, including habitat destruction, loss of biodiversity, and fragmentation of ecosystems. As the vegetation on the project sites is very low and its habitat's significance is low its cumulative impact will also be low. Solar power plants can alter the visual landscape and impact scenic views in rural and natural areas. This can lead to aesthetic concerns among local communities and visitors. When the project site is assessed due to visual aspects, the impact of proposed SPP will be low. Also, compared to many other forms of energy generation, solar power typically has lower land use impacts per unit of energy produced.

A map showing the AoI of the Project is given in Section 2 in *Figure 2-3.* The neighborhoods within the designated AoI are as follows: Bakımlı, Kıyıcak and Gölkaşı. During the preparation of this management plan, a site study was conducted by MGS in the Project area and interviews were held with the mukhtars of the neighborhoods in the AoI. The details of the interviews are detailed in the SEP prepared within the scope of the Project. Although the Project area is classified as 'pasture', stakeholders were informed that there will be no livelihood loss due to Project activities in Gölkaşı,Kıyıcak and Bakımlı Neighborhoods. Moreover, no local residents were observed using the pasture where the Project area

is located. Stakeholder interviews conducted under the Project confirm that the Project area is not currently used by local people. Pasture use was also not detected in the questioning carried out in settlements. Even for this reason, only "possible" land users were included in the stakeholder analysis.

Figure 2-20.Closest SPPs to Project Area



During the construction phase of the Project, it is expected that there will be a temporary impact on traffic in the area due to the trucks and heavy equipment that will be used to transport the panels and various equipment. The Traffic Management Plan prepared specifically for this issue is included in *Annex-H.* Traffic Management Plan provided in *Annex-H* will serve as a template for the Contractor to develop and implement for the construction phase of the project.

3 Subproject Description and Activities

3.1.1 Subproject Description

VASKİ is an independent budgeted public legal entity established under Van Metropolitan Municipality in accordance with the Law No. 2560 dated 20/11/1981. VASKI's services are limited to the jurisdiction of Van Metropolitan Municipality. However, services related to the water resources utilized by the city are carried out by the Administration even outside the boundaries of the Metropolitan Municipality. The duties and powers to carry out water and sewerage services, to establish, maintain and operate dams and other facilities necessary for this purpose, to rehabilitate streams, and to market spring water or water produced after treatment, which are among the duties written in Article 7, Paragraph 1, Clause (r) of the Metropolitan Municipality Law No. 5216 dated 23/07/2004, belong to the Administration.

VASKİ SPP 32 MWe Project is planned in VAN Province Edremit district Bakımlı neighborhood 0 island 890 parcel. The parcel in question has an area of 1.205.685,16 m2 and 460.800 m2 of it will be used for the project area, the ownership belongs to the treasury and has been allocated to VASKİ, which is

the owner of the activity. The land title deed is included in Annex-C. The planned SPP project has a power of 32,000 kwe (38,088.96 kwp). With this project, 77% of VASKI's total consumption will be met.

As mentioned earlier, Project is categorized as of Moderate Risk as per the Risk Screening conducted under ILBANK ESMS and World Bank ESF.

In accordance with the national EIA Regulation that entered into force with the Official Gazette dated 29.07.2022 and numbered 31907, VASKİ 32,000 kwe solar energy project is within the scope of EIA as per the legislation due to its installation on land. In this context, a final EIA Report was published in April 2023 for a total capacity of 62.88 MWm/50.3 MWe-120.57 ha. However, this ESMP covers only 32 MW of SPP area. The area where the project will take place has a parcel number of 890. This parcel is divided into two. In the first phase, activities will start on parcel number 926 (see *Figure 3-1*).

Figure 3-1. Project Activities Area Map

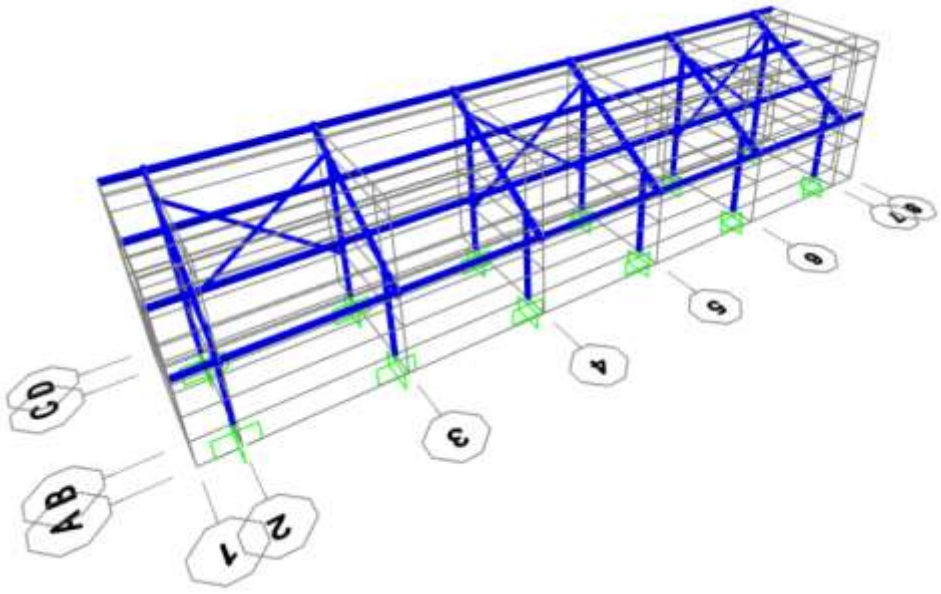
Project generation data was calculated using EMRA, global sunshine duration and PV SYST program. VAN region ranks first in Turkey in the ranking of the most suitable region for solar energy with its sunshine duration. In addition to contributing to the economy with an annual production of 70.732 MWh, the power plant will prevent 43,839 tons of carbon emissions due to the renewable clean energy source of solar energy. If the energy produced is scaled, it is approximately equivalent to the electricity consumption of 29,000 households.

In this contex, in VASKİ SPP 32 MWe project, the land structure and the technology planned to be used were determined and designed according to the existing productions. During the settlement, the angle of the sun was determined as 300 degrees according to the coordinates of the region. Due to the high level of solar radiation, a fixed angle system was designed. Project Main Components: 69,888 panels with 545 wp power, 128 inverters with 250 kw power, 13 2,500 kva transformers, 2 1600 kva transformers, 15 distribution panels, 2 distribution centers.

The construction dimensions to be used in the project were designed by calculating the panel and snow load (see *Figure 3-2)*. There will be a total of 39 panels in each stand with fixed angles and 3 horizontally.

According to the calculations in the static report, the distance between the columns will be 2 m and the distance between the stands to be installed side by side is approximately 1.4 m. There are a total of 1792 tables in the power plant. In the design, a distance of approximately 6 m is left between the trestles. The reason for this is to ensure that there is no shading on the panels due to the decrease in the sun angle, especially in winter months, and to prevent damage to the power plant by vehicles that will be in the field during / after installation.

Figure 3-2.Construction Design



With this Project, the installation of a Solar Power Plant consisting of Photovoltaic Solar Energy Panels 545 Wp monocrystalline solar panel type will be realized. The VASKİ 32 MWe SPP will be connected to ENGİL TM located 2,162 meters away in line with the permissions given by VEDAŞ. There is no private land along the ETL route (see ***Hata! Başvuru kaynağı bulunamadı.***) and preliminary permits have been obtained for the line passing through public land (*see Annex-G*). The entire ETL is planned to be taken underground.

Access to the main parcel numbered 890, which is divided into two separate parcels numbered 926 and 927 (the Project will be realized on parcel numbered 926), is provided via existing roads and no new road work will be carried out within the scope of the Project.

3.1.2 Environmental and Social Impacts Related with the Subproject Activities

During construction and operation phases of the Project, environmental and social impacts caused by project activities may arise. Any potential impacts of the Project during the construction phase would be generally short term with low to medium magnitude that would be locally significant. These impacts would mostly be related to traffic, noise, vibration, air quality, soil disturbance and contamination, waste management, community health and safety, and labor and working conditions (including occupational health and safety). Operation of the Project might create noise, concentrated wastewater, storage and transportation of chemicals, and soil contamination related impacts on sensitive receptors, and occupational health and safety risks which could be considered as significant if not properly managed, particularly during maintenance and repair works. Maintenance and repair work of the Project

components might have minor environmental impacts such as soil contamination and increased level of noise, waste. These impacts will be local and short-term with low in significance.

Land Use, Soil and Geology:

It should be noted that impacts of pre-construction phase are also assessed in the land preparation and construction phase in the following section.

There will be some minor impacts on the soil environment and land use during the construction of the solar power plant and the ETL. However, these impacts are on project footprint and restricted to the construction sites. The potential impacts will consist of:

- Leakage and spill of fuels, and oils to be used for the construction machinery and equipment can create soil contamination risk.
- Soil erosion during construction works.
- Soil contamination because of oil or fuel leaks or spillage that may result from incidents and unexpected events.
- Alterations of the natural soil and land structure because of soil stripping, levelling excavation and filling activities, work of construction machinery.
- Uncontrolled storage or disposal of solid and/or liquid waste can cause soil pollution.
- Piling of soil along public routes and improper reinstatement of soil to its original position

There will not be a planned fuel storage on site. For any spill risks there will be spill kits. As the vegetation on site is very limited and the soil property is stony and rocky, the top soil clearance and ground leveling works will be limited. No impact is expected during the operation phase of the Project. No vegetation management is foreseen for the operation stage. The site and the works conducted during the construction phase will be monitored and reported regularly including the vegetation, and in case of any requirement assessed for the operation phase a Vegetation Management Plan will be prepared and implemented in line with ESS3. In the areas where construction activities are completed in the site, land arrangement works will be carried out. Areas that have been damaged during these activities will be reorganized by reducing them to the appropriate slope. Thus, the excavation gaps that will occur in the topography during the activity will be eliminated. Vegetative soil stored to be used for rehabilitation purposes will be used as top cover in necessary areas.

On the other hand, despite the Project area being categorized as "pasture," stakeholders were notified that the activities of the Project will not result in any loss of livelihood in the neighborhoods of Gölkaşı, Kıyıcak, and Bakımlı. Furthermore, the pasture where the Project area is situated was not being used by any locals. Additionally, there was no evidence of pasture use throughout the settlement interviews. Only "possible" land users were considered in the stakeholder analysis, even for this reason.

Air Quality and Noise:

The major impacts on air quality during the construction phase of this project will be related with the material handling, vehicle movement, excavation and backfilling, compaction works and emissions from heavy construction machinery (trucks, excavators, etc.).

During the construction phase, the amount of noise that may occur from large vehicles such as truck, concrete mixer etc. during the construction works, and the noise level to be expected to be generated has been calculated by estimation method. Noise calculations were made for 500 to 3500 meters by

assuming that 3 trucks, 1 loader, 1 transmixer, 1 cylinder and 1 all-terrain water tanker will operate during the construction. The calculated noise levels (in dBA) with the estimation given above are given in *Table 3-1* below.

Table 3-1.Equivalent Noise Level (dBA)

Distance(m)	Equivalent Noise Level (dBA)
200	60.83
420	54.81
600	51.29
800	48.79
1000	46.85

According to the noise estimation results, both the World Bank and national standards were not exceeded except 200 m distance. Noise standards can be found in *Table 2-5.* In cases where Turkish requirements differ from the levels and measures presented in the EHS Guidelines, the more stringent one (such as the most stringent discharge and emission standards) in the project specification will be applied in the project specifications.

The project activities within the construction phase are associated with a range of activities that generate noise. The noise would be potentially generated by transportation vehicles, machinery, and outdoor equipment to be used for preparation of the site and the construction activities, pipe placement /replacement, trench filling, and paving and asphalting.

Considering the excavation, transportation, material discharge, and topsoil activities, an uncontrolled dust emission of 0.409 kg/hour and a controlled 0.204 kg/hour dust emission have been estimated. The calculated dust flow rate is below the mass flow rate (<1 kg/hour) (outside the chimney) value given for the normal operating conditions and operating hours on weekly working days given in Annex-2 Table 2.1 of the "Regulation on Control of Industrial Air Pollution". Therefore, dust dispersion modeling is not required in accordance with the national regulation.

Air pollution will be mainly dust emissions and exhaust emissions as well as Greenhouse Gas (GHG) emissions. Considering the location of the project area, it is not expected that sensitive receptors will be affected. During the construction phase of the project, impacts on air quality will be mainly due to dust, exhaust and GHG emissions caused by:

- Dust emission during the site preparation, excavation, backfilling, and compaction works performed for the construction works.
- Dust emission due to the vehicle movement for transportation of various construction materials to the project site.
- Exhaust emissions originating from vehicles used in construction activities.
- GHG emissions generated from vehicles and machinery in small amounts.

These air quality impacts will be limited in terms of area and short-term since there will be a limited number of equipment and machinery operating on site. In addition, recovery wastewater distribution network will follow the cadastral roads and the construction will be performed gradually. Therefore, the receptors will be limited to the ones located near the construction sites.

In below the amount of exhaust emission that will occur during the simultaneous operation of all vehicles has been calculated:

- PM10, 0.017 kg/h
- SO2, 0.006 kg /h
- NOx, 0.0051 kg/h
- CO, 0.077 kg/h

When the calculated hourly mass flow (kg/hour) value is compared with the mass flow values given for the operating hours in normal operating conditions and weekly working days given in Table 2 of Annex-2 of the "Regulation on the Control of Industrial Air Pollution", the emission mass flow rates are determined. It has been observed that the limit values given in the regulation are below the limit values.

In cases where Turkish requirements differ from the levels and measures presented in the EHS Guidelines, the more stringent one (such as the most stringent discharge and emission standards) in the project specification will be applied in the project specifications.

Vibration that will affect humans or the structure in the vicinity is not expected to occur as there will be no blasting activity within the project.

No impact is expected during the operation phase of the project.

Moreover, a noise exemption letter will be obtained for the facility activity within the scope of the Environmental Permit and License Regulation published in the Official Gazette dated 10.09.2014 and numbered 29115.

Water Resources and Wastewater:

During the construction phase, there will be water supply requirements to meet the needs of employees and to prevent dust emissions. The drinking water needs of the employees will be met with bottled water, while the domestic water needs will be provided by tanker truck to the operation area. Wastewater from personnel will be collected in a leak-proof septic tank in the Project area. Water to be used for dust suppression and washing water will be brought to the project area by truck. The quality of the water to be supplied to the Project will comply with the WB's ESSs and the Regulation on Water Intended for Human Consumption. Minor short-term negative impacts due to surface runoff, muddy water filling the excavation trenches, etc. would occur during construction. Construction activities may also pose the potential for release of petroleum-based products, such as lubricants, hydraulic fluids, or fuels during their storage, transfer, or use in equipment. VASKİ does not plan any fuel storage on the site. Spill kits will be available on site for any spill risks, and leak-proof pans should be placed under the drums where oil is changed.

Although the proposed project will have positive impacts on the water resources such as decrease of treated wastewater discharge, contribution to water resource efficiency in a long term, etc., during the operation phase of the Project, the regular maintenance works to be performed on solar power plant might create impacts like the ones in construction phase. In this context, approximately 4 m^3 / trip water will be used during the panel cleaning works to be carried out 2 times a year at the facility. Since the cleaning water will evaporate on the panel surface, there will be no wastewater generation.

To conclude, operation phase impacts of the Project is generally found to be positive on water resources. However, measures should be taken to prevent any unexpected deterioration on the receiving water quality. During the operation phase of the project the impact will be direct and positive with long term duration.

No groundwater was encountered during the studies conducted in the study area. The impacts on groundwater resources in the operation phase will be similar to the ones of the construction phase. The impacts will be mostly related to accidental spills/leakages. The impacts will be low negligible in significance upon adherence to good engineering methods.

Waste Management:

During the construction phase of the Project, activities such as vegetation clearance, levelling, construction and installation of main operation and auxiliary units, procurement, transportation and assembly of units and equipment will be carried out. Solid waste types expected to be generated within the scope of these activities are municipal wastes, packaging wastes of system equipment (e.g., wood, cardboard, plastic, etc.), hazardous wastes, special wastes, excavation, and construction wastes (e.g., scrap metal, wood, concrete waste, etc.), and waste system equipment (PV monocristal panels, cables, electronic components). Panel wastes generated during maintenance and repair at the site will be delivered to licensed companies. Until the panels are delivered, they will be kept covered in case they need to be kept on site. The points where the disposal of crystalline silicon-containing cells are included in the legislation are limited and are in the form of conventional waste disposal. This includes the recycling of the parts of the wastes from PV panels that can be reused and then disposal in landfills or removal by general waste treatment. Moreover, hazardous and special wastes might contain chemical substances (e.g., paint, solvent) or packaging materials and cloths contaminated with oils, waste oils resulting from operation and maintenance of machinery and vehicles, solvents, accumulators, batteries, filters, machine parts.

The food needs of the personnel who will work within the scope of the project will be provided by the subcontractor company and there will be no vegetable waste oil generation. Not using a subcontractor company Vegetable waste oils will be collected separately from other wastes and stored in the temporary waste storage area to be located in the project area and sent to licensed facilities in accordance with the provisions of the "Regulation on Control of Vegetable Waste Oils" published in the Official Gazette dated 06.06.2015 and numbered 29378.

In the operation phase, there might be waste generation resulting from damaged, malfunctioned or end-of-life equipment and material that could be replaced or controlled during maintenance and repair activities to be performed periodically or in case of a breakdown. Moreover, procurement of new equipment, pieces and others will also result in generation of packaging waste. Besides, personal protective equipment, clothes and rags used during maintenance and repair activities might result in a limited amount of waste generation. In the operation phase of the Project, due to the oil change needs of equipment, there will be limited amount of waste oil generation.

The impact resulting from the generation of the waste is assessed as direct and negative with short-term duration, local and low in significance.

Biological Environment:

In the construction phase of the project, some direct or indirect impacts are expected to occur on biological environment and natural assets. The loss of habitat and biodiversity might be a concern in the project area located at the boundaries of protected areas. However, the planned Project will be realized in an already modified area. According to the assessment conducted under WB ESS-6, plant species identified in the project area are widely distributed. It is considered that the planned project will not cause serious damage in terms of plant ecology. The Project area is located close to the main migration route according to the Turkey Bird Migration Bottleneck Map. There are existing solar power plants around the project area. For this reason, there is no environmental elements (trees, tree hollows, bushes, etc.) in the project area where bird species can meet their feeding, sheltering, accommodation and breeding

needs. Moreover, fauna species will be affected due to the works to be carried out within the scope of the Project. Due to this disturbance, some of these wild animals will be forced to move away from these areas. Individuals that spontaneously move away will search for suitable, similar habitats in the immediate vicinity. In this case, problems such as the carrying capacity of the sections where wild animals will shelter and competition with other species may occur. However, observations and examinations carried out in the project area have shown that the species do not have dense populations and there is no habitat in the area. Moreover, problems that may arise from the Project and measures to be taken are given in *Section 2.2.2*. As there is no sensitive habitat or flora species found in the area, no significant impact is expected to occur such as sensitive habitat and vegetation loss during the construction activities of the Project.

The impact on the fauna species is assessed as direct and negative and low in significance. No negative impact of the project's operational activities on terrestrial flora and fauna is expected. When necessary, preventive measures are taken, natural life will continue in its former state after the construction activities are over. Contrary to the negative effect, it is predicted that it will have a positive effect as it will reduce the amount of discharged wastewater and water use.

Cultural Heritage:

The cultural heritages closest to the Project area are mentioned in the *Section 2.2.1* . There is no tangible or intangible cultural heritage found within the project site. In this case of any detection of chance finds during the construction activities, Chance Find Procedure will be implemented.

As the initial stage of baseline studies, literature and surficial studies have been conducted for land. Depending on these studies, potential impact on these sources and related mitigation measures are assessing in ESMP. However, due to the nature of physical cultural resources, buried assets (i.e., graves or mounds) may not be determined during baseline studies. The principal issue is twofold: (i) “chance finds” identification of during construction, and (ii) potential impact of the project on known cultural values. VASKİ is responsible for the application of the relevant law and regulation given in *Section 1.1.* Moreover, since there are no tangible cultural heritage assets near the Project area, no impact is expected on the existing cultural assets. If any chance find is encountered during the construction activities of the Project, Chance Find Procedure will be implemented. As part of the regular reporting, VASKİ will inform İLBANK of the historical and cultural findings, if any, as well as the actions taken. Avoiding or mitigating impacts on physical or cultural resources of the IFI financed projects should be ensured in accordance with ILBANK ESMS. Therefore, İLBANK will not proceed with sub-project funding until all requirements of the Turkish legislation and WB requirements are met.

Moreover, during the site studies, mukhtars, local authorities and residents were questioned about the presence of cultural heritage in Project AoI. No tangible or intangible cultural heritage assets that may be adversely affected by the Project were identified.

During the construction phase, excavation activities will take place, which may lead to come across with chance finds as mentioned in above paragraphs and therefore the Chance Finds Procedure will be implemented.

Climate Change:

The Project’s contribution to climate change during the construction phase will be due to the emission of GHG. The majority of greenhouse gas emissions will be due to construction machinery/equipment usage. The major greenhouse gas emission will be CO_2 emissions resulting from the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of

methane and nitrous oxide will also be emitted during fuel combustion. Therefore, these emissions will contribute to climate change.

The project's contribution to climate change through GHG emissions is assessed as a negative and direct impact. The impact's extent will be regional, and duration will be short-term. Although the sensitivity of the receptor is considered medium, due to the usage of small number of construction machinery/equipment, the significance of the impact is considered low.

The project's contribution to climate change during the operation phase will be similar to the one explained for the construction phase and the significance of the impact will be low. In the operation phase, usage of fossil fuel burning equipment/machinery usage will be limited.

As a result, GHG emissions generated during land preparation, construction and operation phases of the project can be considered as relatively short-term emissions. With the realization of proper mitigation measures, GHG emissions can be minimized.

In addition to contributing to the economy with an annual production of 70.732 MWh, the plant will prevent 43.839 tons of carbon emissions due to the renewable clean energy source of solar energy. If the energy produced is scaled, it is approximately equivalent to the electricity consumption of 29.000 households.

Social Impact:

The consultations conducted in Project AoI did not identify refugees or child-headed households residing there. Challenges such as lack of transport budget, unemployment, and physical disabilities may hinder participation in consultation activities. Programs will be developed to facilitate participation of vulnerable groups. Around 640 residents move to different cities seasonally for work. Consultations will be organized for them in winter. Employment opportunities within the project will be advertised locally. The number of individuals who speak Turkish is in the majority, however,Kurdish needs will be taken into consideration in consultations and disclosure activities through the provision of translation services by mukhtars if needed. Kurdish language option will be provided when necessary. GM forms and consultation records will be kept in Turkish, however, mukhtars will provide interpreters for people who do not speak Turkish and speak Kurdish at consultation meetings and in the grievance mechanism. There are 2,567 women in the area with low literacy rates and limited presence in public activities. It is suggested to engage with women's groups in Quran courses at neighborhood mosques for information sharing and stakeholder engagement.

This ESMP was published on VASKI's web page for 10 days in accordance with ILBANK ESMS and WB ESS-10 and announced to the public by being published in one local and one national newspaper. Project announcement brochures were prepared, distributed to mukhtars' offices and publicized. On April 1, 2024, a Stakeholder Consultation Meeting was held at Van Provincial Directorate of Agriculture and Forestry Meeting Hall. The minutes of this meeting are given in *Annex-L*.

3.1.3 Labor Management

It is planned to employ 40 personnel during the construction and machinery-equipment assembly activities of the solar power plant and 6 personnel during the operation phase. There will be no employee accommodation in the project area. In case of receiving services from outside Van province, accommodation will be provided at the Guest House of Van Metropolitan Municipality. Van Metropolitan Municipality guesthouse is located 20 km as the air line from the Project area. In case of employee accommodation, VASKİ will provide transportation to the Project area for employees staying at the guesthouse. Transportation is expected to take 30 minutes.

Subproject-specific Labor Management Plan (in line with WB template) will be prepared and submitted to ILBANK for review and approval prior to start of site mobilization. The child labor, forced labor, non-registered worker employment will be prohibited and the subproject-specific Labor Management Plan will address that those risks will be managed and eliminated. Special emphasis will be given to the irregular migrant issues existing in Van province (including Edremit district where the subproject is located) as required by ILBANK ESMS.

A GM for employees, as described in the subproject-specific SEP and aligned with ILBANK's Grievance Policy will be established and implemented at the subproject-level. Employees will be able to express and demand their needs and concerns without the fear of retaliation. Anonymous applications will also be possible. Labor force (employees will be able to direct their grievances in topics including but not limited to accommodation, food, sanitation and OHS risks and Personel Protective Equipment (PPE) will be followed and resolved.

Primary Supply Workers: Necessary measures will be taken at tender and contract level to prevent the subproject will not involve or lead to potential risks of child labor, forced labor. Serious safety issues that may arise in relation to primary suppliers and primary supply workers will be managed as described in the Occupational Health and safety Sub Management Plan which will cover the primary supply workers to the desired extent.

3.1.4 OHS Risks and Measures of Subproject Activities

As required by both Turkish National Law and WB Group Health and Safety Guidelines and also ILBANK's ESMS, all general and sector-specific OHS hazards / risks will be adequately identified, addressed and managed throughout the construction, operation and decommissioning phases.

- Subproject-specific OHS Management Plan, Emergency Preparedness and Response Plan, Traffic Management Plan (As provided in Annex-H), Incident Investigation Reporting Procedure will be prepared and submitted to ILBANK for review and approval prior to start of site mobilization. Traffic Management Plan provided in Annex-H will serve as a template for the Contractor to develop and implement for the construction phase of the project.
- As a part of the preliminary work, a sub project specific risk assessment document will be prepared by OHS professionals assigned to the project.
- OHS Training Plan will cover the topics and scheduling of the OHS trainings and will be in line with local legislation.
- Safe Work Procedures / Safe Operation Manuals will be prepared and used for handling PVP s and other equipment requiring specialized techniques during transportation, installation and waste disposal.
- In line with the Traffic Management Plan all project personnel will receive safe driving courses. Special emphasis will be given to community safety to prevent road / traffic accidents in these trainings since the roads will be commonly used with the local community.
- Un authorized access to project site will be prevented by fencing the premises and employing security personnel on a 24-Hour basis. Hazard communication will be made adequate number of safety signs complying to respective Local Law.
- PPE complying with respective TS/EN standards will be selected and provided to workers with necessary training about when and how to use them.
- Special Tasks such as cutting, welding, confined space entry, will be performed only with a work permit system in place.
- Administrative measures such as readjusting of the working hours / shifts will be done in case of extreme weather conditions occur during the project.

- Sufficient facilities and equipment will be provided on site for first aid in case of an injury since the work site is a remote location. Regular drills including basic firefighting and evacuation of the injured personnel will be made to ensure emergency preparedness.

During the operation phase special emphasis must be given to LOTO (Lock Out Tag Out) protocols since voltages utilized in the completed plant are considered lethal. Only personnel with necessary professional training and certification will be allowed to work on high voltage equipment.

Main sources of hazards that may be present include but not limited to;

- Vehicle operations including local traffic
- Moving machinery and equipment.
- Electricity
- Chemicals
- Hand and Power Tools
- Lifting / Rigging operations
- Work at Height
- Compressed Vessels
- Extreme Weather Conditions

3.1.5 Resource Efficiency

The use of materials, energy, water, and land is and will be optimized throughout the lifecycle of the VASKİ 32 MW SPP. Main measures for implementing the resource efficiency which can help minimize environmental impacts, reduce costs, and enhance the overall sustainability of solar power generation include:

- Optimized Design and Siting: Site selection and design optimization has been conducted to maximize solar energy capture while minimizing land use and environmental impacts. This includes considering factors such as solar resource availability, terrain, land use patterns, and potential environmental constraints.
- Advanced Solar Panel Technologies: Investing in high-efficiency solar panels that increase energy output per unit area, reducing the land footprint and material requirements for a certain power output has been planned.
- Recycling and Circular Economy Practices: The Recycling Plan will be developed for damaged or end-of-life solar panels and components that can recover valuable materials such as silicon, glass, and metals for reuse in manufacturing. Implementing the recycling plan will be ensured throughout the life cycle of the proposed SPP. Adaptation of circular economy principles will minimize waste generation and resource depletion.
- Water Conservation: Reducing water consumption including the cleaning activities of the PV panels, and minimizing impacts on local water resources will be ensured throughout the life cycle of the proposed SPP.
- Energy Efficiency: Using energy-efficient equipment and adopting low-energy construction techniques will be ensured. Optimizing energy use during transportation, installation, and operation of proposed SPP will reduce overall energy consumption and associated greenhouse gas emissions.
- Community Engagement and Social Sustainability: Engaging with local communities and stakeholders throughout the project lifecycle will help identify opportunities to enhance social

sustainability, address community concerns, and maximize local benefits, contributing to the overall efficiency and acceptance of the proposed SPP.

4 ESMP Matrix: Risk and Impacts, Mitigation, Monitoring

As the project owner, it is the responsibility of VASKI to manage the environmental and social issues of the project and to ensure that the necessary mechanisms are developed and implemented by the Contractor and/or Sub-contractor.

Within the scope of the Project, it is envisaged that planned VASKI 32 MWe SPP Project possible to arise some the environmental and social impacts in the pre-construction, land preparation and construction, and operation stages.

The management of the risks and impacts that may occur on the environmental and social components during the pre-construction, land preparation and construction, and operation phases and the relevant mitigation measures defined for these impacts are given in the *Table 4-1 .*

For the implementation of the mitigation plans, it should be noted that the most stringent among national legislation and WB standards will be complied with and also the most up-to-date legislation will be considered.

Monitoring plays a key role in ensuring the continuity and effectiveness of the implementation of the identified mitigation management strategies. The main purpose of the Monitoring Plan is to provide a basis for assessing the implementation of the prescribed measures and requirements of this ESMP. Information gathered by monitoring can be used to improve management plans at all phases of the Project. Although impact assessment attempts to cover all relevant potential impacts to determine their significance and to include appropriate responses for these impacts, unexpected impacts may occur that can be managed or mitigated before they become a problem using information obtained through monitoring. Therefore, monitoring will ensure the successful implementation of mitigation/management plans and optimize environmental protection through good practices at each stage of the Project.

For the implementation of the monitoring plans, it should be noted that the most stringent among national legislation and WB standards will be complied and also the most up-to-date legislation will be considered. Monitoring studies are submitted in *Table 4-2.*

Table 4-1. Environmental and Social Management Plan (ESMP) Matrix

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
1	**Labor and Working Conditions**						
1.1	Improper Working Conditions	Construction Phase Operation Phase Closure Phase	Workers	• A team of OHS professionals with adequate capacity on managing, monitoring and reporting OHS issues will be established before the commencement of works on site • A complete risk assessment document addressing the project specific risks and defining mitigation measures will be prepared. • All employees including the subcontractors will receive necessary OHS training covering the risks in the above mentioned document • All sub project management plans including safe work procedures and emergency action plans will be prepared. • Child labor, forced labor and unregistered labor will be prohibited and a sub-project specific Labor Management Plan will be created and this plan will address how to manage and eliminate the risks in question. • In accordance with the ILBANK ESMS the scope of the project, importance will be given to the immigrant problem in Edremit district of Van province. • Necessary measures will be taken at tender and contract level to ensure that the Project does not involve or lead to potential risks such as child labor, forced labor, etc. Serious safety issues that may arise in relation to primary suppliers and primary supply employees will be managed as described in the Occupational	Contractor and/or sub-contractor VASKI Supervision Consultant	ESMR Findings	ESMP Site Closure / Rehabilitation Plan

				Health and Safety Sub-Management Plan, which will cover primary supply employees to the extent required. • Workers will be provided with documented information that is clear and understandable, regarding their rights under national labor law; including collective agreements, their rights related to hours of work, wages, overtime, compensation, and benefits as of startup of working relationship and when any material changes occur. • A Grievance Mechanism for workers will be established for them to raise workplace concerns. The workers will be informed about the grievance mechanism at the time of recruitment, and it will be made easily accessible to them. • Subcontractors will be provided with written contracts stating detailed job descriptions, rights and obligations and Code of Conduct. • It is foreseen that affected workforce and the surrounding communities will be impacted positively because of the workforce well-being will be prioritized during the Project. • There will be no staff accommodation in the field. In case of accommodation, the guesthouse belonging to Van Metropolitan Municipality will be used. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.			
1.2	Gender Based Violence (GBV), Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	Construction Phase Operation Phase	Workers	• Sensitization of the Managements of Construction Contractor and both Consultants on GBV and SEA/SH issues will be provided. • Awareness Meetings will be conducted with the affected communities.	Contractor and/or sub-contractor	Grievance Records ESMR Findings	ESMP Site Closure / Rehabilitation Plan

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
		Closure Phase		• Training regarding GBV and SEA/SH will be provided to all project workers. • All Project workers will sign and be informed about the Code of Conduct. • A functional GM and referral mechanism will be operated to capture GBV and SEA/SH related complaints. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.	VASKI Supervision Consultant		
2	**Resource Efficiency and Pollution Prevention and Management**						
2.1	Impacts on Water Resources	Construction Phase Operation Phase Closure Phase	Water Resources	• It is foreseen that the wastewater generated by the personnel working at the facility will be removed by appropriate methods. Monitoring should be carried out in accordance with national and international standards to improve water quality and ecological status. • Spill kits will always be available on the construction sites. • A Site Closure Plan will be prepared for the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.	Contractor and/or sub-contractor VASKI Supervision Consultant	ESMR Findings	ESMP Site Closure / Rehabilitation Plan
2.2	Waste Management	Construction Phase	Community	• Temporary Waste Storage Area will be established on the site and wastes will be stored according to their types. Domestic waste will be delivered to the Municipality and packaging,	Contractor and/or sub-contractor	ESMR Findings	ESMP

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
		Operation Phase		hazardous waste, etc. will be delivered to licensed companies. • Panel wastes generated during maintenance and repair at the site will be delivered to licensed companies. The Recycling Plan will be developed for damaged or end-of-life solar panels and components that can recover valuable materials such as silicon, glass, and metals for reuse in manufacturing. • The food needs of the personnel who will work within the scope of the project will be met by the subcontractor company and there will be no vegetable waste oil generation.	VASKI Supervision Consultant		Site Closure / Rehabilitation Plan
2.3	Air Quality Management	Construction Phase Operation Phase	Community	• Dust emissions will be generated during site preparation, excavation, filling and compaction works for construction works. The Project area will be regularly irrigated by water tankers. Air quality measurement will be repeated in case of complaints from settlements.	Contractor and/or sub-contractor VASKI Supervision Consultant	ESMR Findings	ESMP Site Closure / Rehabilitation Plan
2.4	Noise Management	Construction Phase Operation Phase	Community	• The project activities within the construction phase are associated with a range of activities that generate noise. The noise would be potentially generated by transportation vehicles, machinery, and outdoor equipment to be used for preparation of the site and the construction activities. • Moreover, a noise exemption letter will be obtained for the facility activity within the scope of the Environmental Permit and License	Contractor and/or sub-contractor VASKI Supervision Consultant	ESMR Findings	ESMP Site Closure / Rehabilitation Plan

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
				Regulation published in the Official Gazette dated 10.09.2014 and numbered 29115. • Work machines will not be operated at night and noise measurement will be repeated in case of a complaint.			
3	**Community Health and Safety**						
3.1	Public Health and Safety	Construction Phase Operation Phase Closure Phase	Community Workers	• An adequate OHS organizational structure will be defined, as defined by the Regulation on Occupational Health and Safety and necessary number of full-time OHS officers should be assigned at the site. • During dismantling operations, work must be carried out in compliance with national and international standards in terms of occupational health and safety. • A job-specific risk assessment (including Covid-19 risks and other communicable disease risks) will be done before commencing work and personnel will be trained regarding the risks. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.	Contractor and/or sub-contractor VASKI Supervision Consultant	H&S Records Training Records Direct implementation Internal audit program and records Consultation minutes with stakeholders	ESMP Site Closure / Rehabilitation Plan
	Change in traffic density impacting other road users			• Traffic Management Plan will be developed and implemented by the Contractor in line with the template provided in Annex-H for the construction phase of the project.			

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
				• Safe traffic control measures, including road warning signs, speed bumps, and flag persons will be employed to warn the Project personnel of dangerous conditions where necessary. • An alternative road has been developed in addition to the main road for access to the power plant. However, this road should not be used as it passes through settlements. If it is used, special permits must be obtained. Warning signs such as “Dikkat Çalışma Var” or “Dikkat Yol Çalışması” etc. will be placed at the area at which the new road construction activities carried out which also passes the road which is used to reach the site in order to warn the other road users. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.			
	Community Engagement			• Local communities, workers and suppliers will be informed on the main security arrangements implemented and on security rules. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.			

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
3.2	Gender Based Violence (GBV), Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	Construction Phase Operation Phase Closure Phase	Community Workers	• VASKİ and the Contractor will ensure that ethical rules and public communication training is given to all employees as orientation training in order to prevent future disputes and unacceptable behavior (e.g. gender-based violence, harassment, abuse, etc.) in the workplace.	Contractor and/or sub-contractor VASKI Supervision Consultant	Grievance Records ESMR Findings	ESMP Site Closure / Rehabilitation Plan
3.3	Impacts on Local Economy, Livelihood Sources and Employment	Construction Phase Operation Phase Closure Phase	Workers Community	• Local employment will be prioritized as much as possible for unskilled, semi-skilled and skilled works within the scope of Project. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.	Contractor and/or sub-contractor VASKI Supervision Consultant	Socio-Economic Grievance Records ESMR Findings	ESMP SEP Site Closure / Rehabilitation Plan
4	**Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**						
4.1	Impacts on Vulnerable Disadvantaged individuals Groups	Construction Phase Operation Phase Closure Phase	Vulnerable Group Community	• Implementation of various participation programs (e.g. Qur'anic courses) to ensure that women's participation in consultation and decision-making processes is not hindered. • An adequate communication framework will be established to ensure that vulnerable groups' voices are heard, pending issues are resolved and grievances heard. • The use of transportation roads to the neighborhoods where education is provided will	Contractor and/or sub-contractor VASKI Supervision Consultant	Socio-Economic Grievance Records ESMR Findings	ESMP SEP Site Closure / Rehabilitation Plan

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
				be planned in a way that does not endanger the travel safety of the service vehicles. • Traffic precautions (warning signs, speed limits, settlement, and school information for the periods when large and dangerous loads will be transported) will be taken. • VASKI/Contractor will inform the relevant institutions and organizations (Electricity Distribution Company, natural gas distribution, VASKI) before the construction starts so that the usage habits of those living in these areas are not affected during the construction works. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.			
5	**Biodiversity Conservation and Sustainable Management of Living Natural Resources**						
5.1	Disturbance on flora and fauna species	Construction Phase Operation Phase Closure Phase	Flora and Fauna	• Project workers will not be allowed to bring any live animals or plants into the construction site to avoid the risk of pest/invasive species establishing in the Project Area. • Construction work will be done gradually so that it will have enough time to escape for possible fauna species to be found or provide relocation of the species to convenient habitat. • Activities will be minimized when seeds are available (e.g., avoid from stepping on grass or	Contractor and/or sub-contractor VASKI Supervision Consultant	Visual observations Relevant grievance records ESMR Findings	ESMP Site Closure / Rehabilitation Plan

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
				green plants, car washing, activities outside the working area). • Efforts will be taken to mitigate or reduce the impacts of disturbance. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.			
6	**Cultural Heritage**						
6.1	Destruction or deliberate damage to cultural heritage	Construction Phase Operation Phase Closure Phase	Cultural Heritage	• The Chance Find Procedure will be applied during any chance find. • In case of a chance find, all activities will be stopped, and experts of the Museum Directorate will be contacted, and the site will be secured by the Contractor. • The experts of the Museum Directorate will properly secure chance find site via flagging, no-entry signs, etc. and prevent/limit the vehicle traffic within the immediate vicinity of chance find and also protect the site by not moving, removing or further disturbing the chance find. • Boundaries of discovered archaeological site coordinates will be recorded and photographs of the location and the finding shall be taken, and video record should be made.	Contractor and/or sub-contractor VASKI Supervision Consultant	Visual observations Random Site Inspections ESMR Findings	ESMP Site Closure / Rehabilitation Plan

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
				• The site and its vicinity will be secured against damage or loss until a final decision is made about this site by Board. • If any human remains such as contemporary grave or graveyard are noticed, security forces will be informed. Unless the remains are determined to be recent, the local administration (village head: mukhtar, or district governor) has full authority. • Further steps to be followed and proper procedures to be implemented for the management of the finding(s) (changes in the layout, conservation, preservation, restoration, or salvage) will be decided and reported in writing by the Museum Directorate. • In case the site is considered to be of no significance by the Museum Directorate, the experts of the Museum Directorate will inform the Construction Manager. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.			
7	**Stakeholder Engagement and Information Disclosure**						
7.1	Communication issues with the stakeholders	Construction Phase	Stakeholders Community	• The ESMP, SEP and other relevant project documents and information will be disclosed to project employees including contractors, project	Contractor and/or sub-contractor	Enquiries/ questions/	ESMP SEP

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
		Operation Phase Closure Phase		stakeholders and the public. Kurdish needs will be taken into consideration in consultation and disclosure activities through the provision of translation services by mukhtars , if necessary. • The public will be informed in advance regarding traffic route changes, drinking water interruption, etc. • Information materials (brochures, etc.) will be prepared. • Platforms/meetings will be organized for information disclosure and consultation. • There will be regular consultations with local authorities and communities regarding the management of the construction. • Establishment and proper functioning of a grievance mechanism will be ensured and information about it disseminated to the public. • It will be ensured that the concerns of all stakeholders are addressed. • The public will be notified of the works, including the Covid-19 measures taken on sites, through appropriate notification in the media and/or at publicly accessible sites (including the site of the works). • Stakeholder engagement events will be preceded with the procedure of articulating hygienic practices. • All details of the Gender-Based Violence (GBV) and Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) survivors will be kept	VASKI Supervision Consultant	grievances by stakeholders Minutes of Meetings Grievance Records (number of grievances & percentage of closed grievances)	Site Closure / Rehabilitation Plan

Ref.	Impact Description	Subproject Phase	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure	Monitoring / Key Performance Indicators (KPIs)	Relevant Management Plan or Procedure
				strictly confidential in the Grievance Register Database. • A Site Closure/Rehabilitation Plan will be prepared for the post-operation phase before the initiation of the post-operation phase. This plan will include procedures on how the equipment will be dismantled and the rehabilitation of the site.			

Table 4-2. Environmental Monitoring Table

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
1	Construction Phase	Impacts on Water Resources	Excavated trenches	Work sites	Visual Observation	Daily at the project construction areas	• WBG General EHS Guidelines: Environment – Wastewater and Ambient Water Quality • WBG General EHS Guidelines: Construction and Decommissioning • WBG General EHS Industry Sector Guidelines for General	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
			Wastewater	Work sites	Visual Observation Water Quality Analysis (if needed)	Once as of land preparation	Manufacturing - for Construction Materials Extraction • WBG General EHS Industry Sector Guidelines for Infrastructure - for Water and Sanitation • WB Environmental and Social Standards • WB ESS1: Assessment and Management of Environmental and Social Risks and Impacts • WB ESS3: Resource Efficiency and Pollution Prevention and Management • Environmental Law • Regulations defined in Annex-B:		
		Dust and Particulate Matter Generation	Grievances about Air Quality	Administration Office	Documentation Check (Grievance Registration)	Weekly during the construction phase	• WBG EHS Guidelines: Community Health and Safety • WBG EHS Guidelines: Environment – Air Emissions and Ambient Air Quality • WBG EHS Guidelines: Construction and Decommissioning • WB Environmental and Social Standards	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)
			Conformity of air quality activities	Work sites Location of the complaint	Visual Observation Air Quality Measurement	Daily In case of any compliant			

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
			Settled dust, PM10 and PM2.5				• WB ESS1: Assessment and Management of Environmental and Social Risks and Impacts • WB ESS3: Resource Efficiency and Pollution Prevention and Management • Environmental Law • Regulations defined in Annex-B:		
		Increase in Noise Level	Grievances about Noise Level	Administration Office	Documentation Check (Grievance Registration)	Weekly during the construction phase	• WBG EHS Guidelines: Community Health and Safety • WBG EHS Guidelines: Environment – Noise • WBG EHS Guidelines: Construction and Decommissioning • WB Environmental and Social Standards • WB ESS1: Assessment and Management of Environmental and Social Risks and Impacts • WB ESS3: Resource Efficiency and Pollution Prevention and Management • Environmental Law • Regulations defined in Annex-B:	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)
			Conformity of noise management activities Noise Level	Work sites Location of the complaint	Visual Observation Noise Measurement	Daily In case of any compliant			

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
		Disturbance on flora and fauna species	Fauna mortality due to the Project activities (such as Project traffic) Incident records	Work sites	Visual Observation	Daily	• WBG EHS Guidelines: Construction and Decommissioning • WB Environmental and Social Standards • WB ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources • Environmental Law • Regulations defined in Annex-B:	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)
		Destruction or deliberate damage to cultural heritage	Chance Finds	Administration Office	Documentation Check (Chance finds register)	Monthly during the construction phase	• WB Environmental and Social Standards • WB ESS8: Cultural Heritage • Conservation of Cultural and Natural Assets Law • Chance Find Procedure	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)
			Machinery and equipment used around archaeological sites	Work sites	Visual Observation	Daily at the work sites			
		Improper Working Conditions	Existence and requirements of the Labor Management Plan	Administration Office	Daily site supervision / audits	Weekly during the construction phase	• WBG EHS Guidelines: Occupational Health and Safety • WBG EHS Guidelines: Community Health and Safety	Contractor and/or sub-contractor VASKI	Included in project budget (contractor)

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
			Environmental Hygiene Internal Grievances				• WB Environmental and Social Standards • WB ESS2: Labor and Working Conditions • Occupational Health and Safety Law • Regulations defined in Section1.1.1 Annex-B:	Supervision Consultant	
		Change in traffic density impacting other road users	Number of community members involved in road safety training sessions	Project affected worksites	H&S Records Training Records Direct implementation Internal audit program and records Consultation minutes with stakeholders	Daily at the project construction areas	• WB Environmental and Social Standards • ESS4: Community Health and Safety • Occupational Health and Safety Law • Regulations defined in Annex-B:	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)
		Public Health and Safety Community Engagement	Number of recorded security incidents involving Project workers and members of the local population		Security Record Grievance Records (number and nature of grievances lodged and resolved within set performance standard)	Daily supervision during construction			

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
		Impacts on Local Economy, Livelihood Sources and Employment	Number of affected business owner Loss of income from access restrictions	Work sites	Survey studies (if needed) Face-to-face meetings with affected business owners	Monthly during the construction phase	• WB Environmental and Social Standards • WB ESS4: Community Health and Safety	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)
			Grievances about loss of income	Administration Office	Documentation Check (Grievance Registration)	Weekly during the construction phase			
		Impacts on Vulnerable/ Disadvantaged Groups	Grievance Records Implementations on the construction sites	Administration Office Work sites	Documentation Check Visual Observation	In case of any compliant Weekly during the construction phase	• WBG EHS Guidelines: Community Health and Safety • WB Environmental and Social Standards	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)
		Communication issues with the stakeholders	Stakeholder engagement activities implementation Grievance Mechanism – number and types of grievances	Administration Office	Documentation Check (Engagement records, Grievance Registers)	Upon each engagement	• WB Environmental and Social Standards • WB ESS10: Stakeholder Engagement and Information Disclosure	Contractor and/or sub-contractor VASKI Supervision Consultant	Included in project budget (contractor)

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
			recorded, addressed and analyzed						
2	Operational Phase	Maintenance/Repair Works	SCADA System	VASKI 32 MWe SPP Project Site	When malfunction is alerted through SCADA system and periodical maintenance/repairs	On the site	• WBG EHS Guidelines: Community Health and Safety • WBG EHS Guidelines: Environment – Wastewater and Ambient Water Quality • WBG EHS Industry Sector Guidelines for Infrastructure - for Water and Sanitation • WB Environmental and Social Standards • WB ESS1: Assessment and Management of Environmental and Social Risks and Impacts • Environmental Law • Regulations defined in Annex-B:	VASKI	Included in project budget (VASKI)
		Communication issues with the stakeholders	Stakeholder engagement implementation activities Grievance Mechanism – number and nature of grievances	VASKI	Documentation Check (Engagement records, Grievance Registers)	Upon each engagement	• WB Environmental and Social Standards	VASKI	Included in project budget (VASKI)

Ref.	Subproject Phase	Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Cost (If not included in the Subproject Budget)
			recorded, addressed and analyzed						
		Labor Conditions	Internal Grievances (number and nature of grievances recorded, and resolved within given performance standard)	VASKI	Documentation Check	Daily during the operational phase	• WBG EHS Guidelines: Occupational Health and Safety • WBG EHS Guidelines: Community Health and Safety • WB Environmental and Social Standards • Occupational Health and Safety Law • Regulations defined in Annex-B:	VASKI	Included in project budget (VASKI)
			Environmental Hygiene	Maintenance sites	Visual Observation	Daily			

5 Capacity Development and Training

ILBANK Project Management Unit (PMU) will include environmental, social and OHS specialists to supervise the implementation of the ESMP in compliance to ILBANK ESMS. Those specialists will supervise the implementation of the ESMP by VASKİ and document performance, recommendations and any further actions required. They will provide guidance to VASKİ on ILBANK ESMS and World Bank procedures, consultation and disclosure requirements.

VASKİ is the main responsible institution for implementation of this ESMP. The responsibilities of VASKİ, Contractors, Construction Supervision Consultant, and ILBANK have been addressed on Section 4 for various works in the scope of the ESMP.

A Project Implementation Unit (PIU) has been established at VASKİ to coordinate, manage and monitor the implementation of the ESMP. The organizational chart of VASKİ is given in ***Hata! Başvuru kaynağı bulunamadı.***.

VASKİ's existing E&S team is composed of the following experts:

- 3 Environmental Engineers
- 1 OHS Expert
- 2 Energy Engineers
- 1 Social Expert
- 3 Experts on external communication
- 3 Experts in Human Resources (HR)

The Supervision Consultant will have at least one Environmental Expert, one Social Expert and one Occupational Health and Safety Expert in its team. Number of experts will be increased, if necessary. Supervision Consultant will oversee the supervision of construction and/or rehabilitation works and installation of equipment. The respective experts will be responsible for identification and management of environmental, social and OHS related risks and will ensure initiation corrective actions where necessary. The experts will also monitor and evaluate the performance of the services provided by the Contractor. In addition, the Supervision Consultant will be responsible for the preparation and submission of the regular monthly reports on the environmental, social and OHS issues of the Project during the construction phase.

All institutions will strive to ensure that the reporting, which constitutes the most important element of communication in the system, is done in accordance with the specified standards, complete, accurate information and on time.

The 32 MWe SPP project to be established by the VASKI is planned to fulfill its international responsibility due to the desire to reduce the energy import of Türkiye by its own structure and the desire to remove it from the expense part due to internal consumption.

The roles and responsibilities of the relevant institutions which are involved in the management, monitoring, implementation and finalization of the Project are summarized in ***Hata! Başvuru kaynağı bulunamadı.***.

Table 5-1.Institution Roles and Responsibilities

Institution	Roles and Responsibilities
ILBANK	• To fulfill the project implementation support role to ensure that the project is carried out in line with ILBANK ESMS and WB ESF, • Visit project sites on occasion, and as required, as part of project supervision, monitoring and auditing.

Institution	Roles and Responsibilities
	• Reviewing, approving, and disclosing ESMP on ILBANK's official website. • Reviewing the Environmental and Social Monitoring Reports (ESMRs) which will be prepared by the Contractor. • Submitting contractor's E&S Monitoring reports will be prepared on monthly basis through the supervisor consultant and VASKİ Providing E-S-OHS trainings to all Project staff
VASKİ Project Implementation Unit (PIU)	• Preparation of project documents in accordance with ILBANK's ESMS and WB ESF requirements and providing guidance on stakeholder consultation and announcement requirements, • Implementation of the ESMP and related management plans and fulfillment of all commitments under the ESMP, • Providing EHS trainings to all Project staff, • Following of monitoring and reporting activities that are related to environmental and social mitigation measures including OHS issues during the implementation of the ESMP, • Monitoring and auditing ESMP practices and giving feedback on its performance, recommendations and further steps to be taken within the overall project audit, • Informing ILBANK via ESMRs, which will be submitted by the Contractor on monthly base • Obtaining the opinions of relevant groups and local environmental/social experts about the environmental and social aspects of the project implementation and meeting with these groups during the field visits, when necessary, • Providing coordination and communication regarding the field visits to be made within the scope of the ILBANK/WB implementation support missions regarding the environmental and social protection measures of the project implementation. • Ensuring compliance with project standards, taking urgent action in case of non-compliance, • Stopping work in any situation that threatens environment and community and occupational health and safety, • Providing follow-up and analysis of environmental (including OHS) and social accidents/incidents, • Ensuring stakeholder consultation, implementing the grievance mechanism, ensuring continuous information transfer through open communication, • Notify İLBANK and WB within 48 hours latest of any contingencies such as environmental, social and labor issues or accidents, incidents or loss of time that has or is likely to have a significant adverse impact on the environment, affected communities, the public or workers. Moreover, these notifications will be performed in line with ESMF, • Coordinating the actions and evaluations in case of a change due to engineering/design changes, route/location changes, legislative changes related to environmental and social issues, authorization provision changes, new environmental/social data, construction/operation strategy changes.
Contractor	• Fulfillment of all requirements of ESMP and other management plans, • Implementation of additional commitments determined by VASKİ, • Ensuring compliance with project standards, obtaining all relevant permits and licenses, • Monitoring of construction activities (including subcontractor activities) and taking measures within the scope of ESMP, • Development of sub-management and monitoring plans/procedures in accordance with the ESMP structure, implementation after the approval of VASKİ, • Employment of competent Environmental, Social and OHS Experts (at least one Social Expert, one Environmental Expert and one OHS Expert) within the scope of the project,

Institution	Roles and Responsibilities
	• Providing necessary training on environmental and social issues to its and subcontractor's personnel, • Ensuring the follow-up and analysis of environmental and social accidents, • Environmental and social audits, monitoring and audits related to ESMP practices, reporting to VASKİ, • Submission of monthly and quarterly Environmental and Social Monitoring Reports (ESMRs) to the VASKİ, • Within 24 hours at the latest notify the VASKİ in case of any incident or accident related to the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public and workers such as OHS accidents or that result in threatening community health and safety and the VASKİ will immediately (not later than 48 hours) inform İLBANK, and İLBANK will inform the World Bank. In such cases, the VASKİ will provide sufficient details regarding the incident or accident, findings of the Root Cause Analysis (RCA), indicating immediate measures taken or that are planned to be taken to address it, compensation paid, and any information provided by any contractor and supervising entity/consultant, as appropriate. The VASKİ will submit the incident report, including root cause analysis, precautions and compensation measures taken, to İLBANK within 30 days. İLBANK will forward the incident report to the Bank immediately upon receipt from the VASKİ. Develop and implement Human Resource Management Procedure including working conditions, fair treatment, non-discrimination, equal opportunity, vulnerable/disadvantaged workers, GBV, SEA/SH, prevention of child labor and forced labor issues under the project's Labor and Employment Policy for construction phase
Supervision Consultant	• Supervision of construction works and installation of equipment, • Make Contractor take necessary actions to eliminate/minimize environmental and social impacts in line with ESMP and conduct monitoring activities as specified in the ESMP Ensuring initiation of corrective actions where necessary, implementation of mitigation measures by the contractor, and sufficient capacity in the team to perform E&S supervision effectively in accordance with the requirements of the ESMP, • Procuring regularly (monthly) report the E&S performance of the contractor to the VASKİ and İLBANK, • Preparing time-bound action plans for the contractor in case of non-compliance, • Using the contractual authority and notifying İLBANK and the VASKİ on time If non-compliances persist, • Monitoring and evaluating the performance of the services provided by the Contractor, • Providing guidance on public consultations and announcement requirements in compliance with WB requirements, • Providing guidance to VASKİ officials and consultants on the WB's requirements (documents and procedures), • Inspect the contractor's activities on a daily basis. • Assign environmental, social and OHS (at least one full-time) experts that will inspect and supervise to Contractor's work on site
E&S Consultant (MGS)	• Providing necessary information to the Project Owner, • Realizing the disclosure and stakeholder consultation (ESMP introduction) meeting to be held for the public and NGOs, • Finalizing this ESMP and the SEP as per the concerns/opinions of the stakeholders of the Project • Organizing and conducting a workshop to the Project Owner on ESMP expectations and commitments, which covers project related environmental and social impacts and risks, and corresponding measures applied to avoid, reduce, and mitigate the risks and potential adverse impacts

Summary of Flowchart of Roles and Responsibilities given in *Figure 5-1.*

Figure 5-1.Summary of Flowchart of Roles and Responsibilities

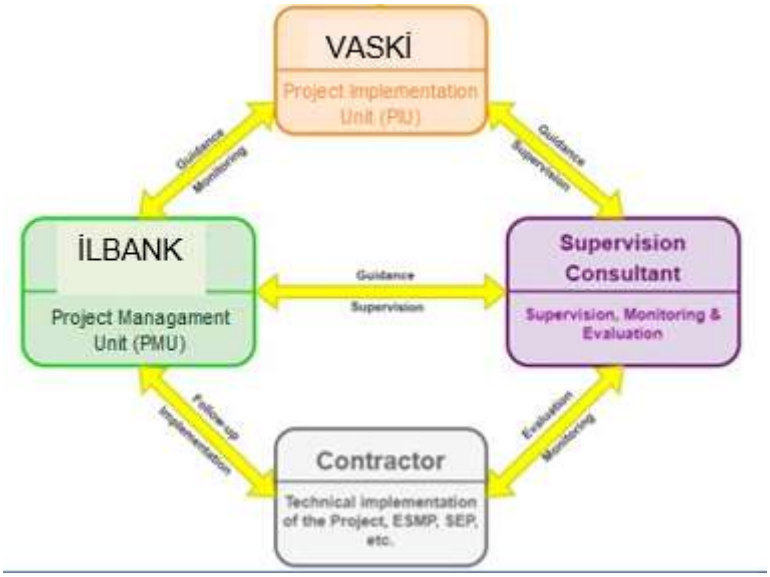
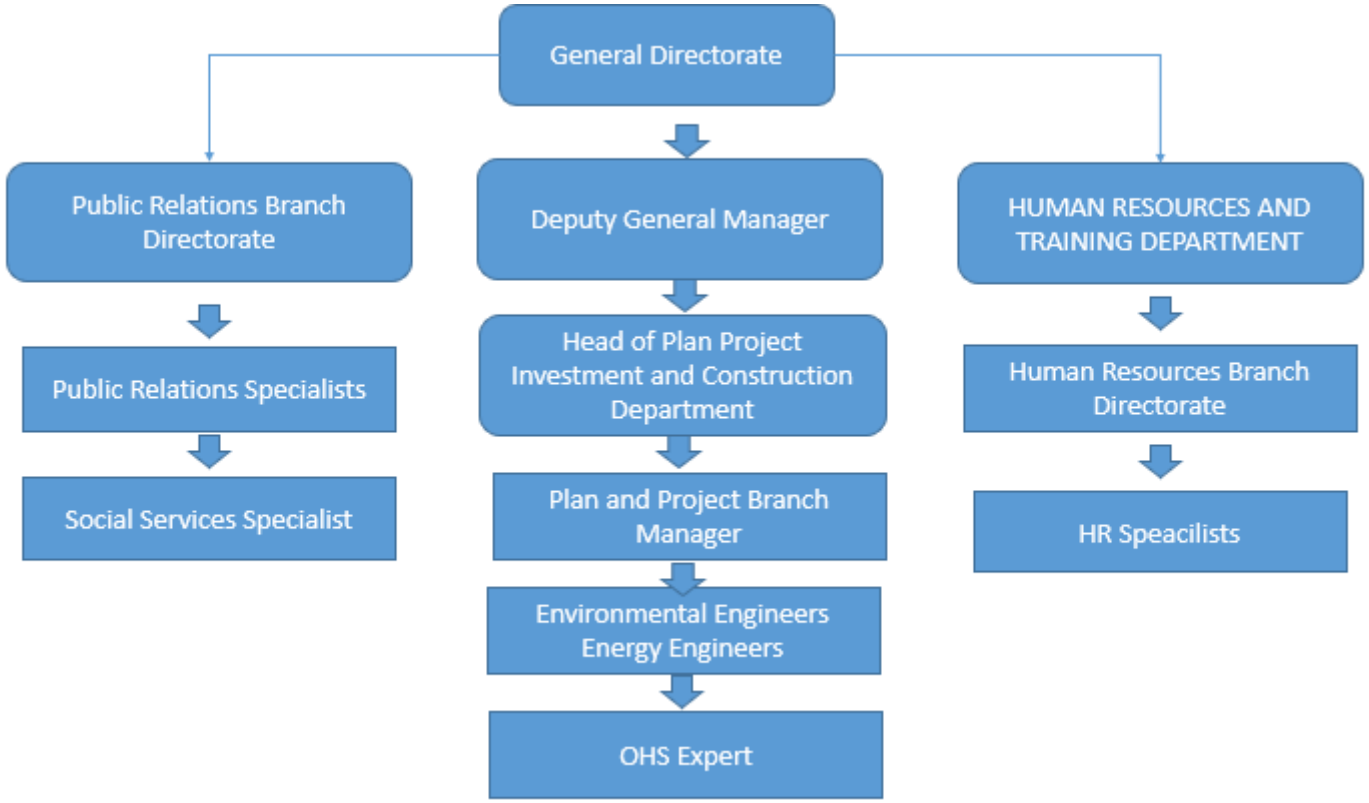


Figure 5-2.Organizational Chart of Implementation of ESMP



One of the main necessities of the ESMP is trainings for the VASKİ's and contractor's top-level management and employees.

Training of staff will be done at a number of levels. The trainings are required for the E&S&OHS managers, other staff members of the PIU and the contractor staff to raise their levels of environmental, social and OHS awareness. The trainings can be conducted by either some external experts or through the help of in-house expertise of the PIU, the Construction Supervision Consultants, and ILBANK E&S&OHS experts. Special environmental and social issues will be examined, and likely solutions provided to the PIU during the implementation of the project. The PIU is also responsible for the monitoring of the Contractor's actions on training. The suggested training topics are:

- General environmental and social management relating to the Project
- Overview of potential impacts and mitigation measures
- Requirements on environmental and social monitoring
- Occupational Health and Safety Training
- Role and responsibilities of the contractor
- Monitoring and implementation of mitigation measures
- Guide and supervise contractor in implementation of the ESMP
- Documentation and reporting
- Risk response and control

6 Implementation Schedule and Cost Estimates

Under this heading, expenditure items for the implementation of the ESMP are presented. Moreover, implementation schedule for VASKI 32 MWe SPP Project is presented in *Table 6-2.*

- Environmental, Social, Occupational Health and Safety Experts,
- Monitoring Activities,
- Revisions in site-specific ESMP and SEP,
- Social, Environmental, and OHS Trainings, Awareness, Information Dissemination,
- Capacity building,
- Implementation of SEP, and ESMPs' measures.

Table 6-1.ESMP Cost Breakdown for Implementation and Monitoring.

Budget Item	Estimated Cost
Construction Phase	
Environmental Expert	Key staff (*)
Social Expert	Key staff (*)
OHS Expert	Key staff (*)
Monitoring (Measurements and laboratory analyses)	Included in the contractor's budget (**)
Financial Experts	No extra cost (***)
Technical Experts	No extra cost (***)
Operation Phase	
Monitoring (Measurements and laboratory analyses)	Included in the operation budget of VASKİ (**)
Financial Experts	No extra cost (***)

Technical Experts	No extra cost (***)

(*) Recruitments of specialists shall be financed under the budget of supervision consultancy services. Relevant cost estimates are taken into account at the initial stage of the consultant selection. The contractors are obliged to hire environmental, social and OHS experts for the implementation and monitoring of ESMP within the scope and price of their bids. .At this stage monthly cost estimated per specialist is 1,000 €/month)

(**) The laboratory and testing obligations and relevant reporting responsibility will be included within the works contract, during the construction period and the defect liability period. Later, for the operation stage, this responsibility will be transferred to VASKİ.

(***) Since VASKİ permanent staff will be appointed to these positions, there will be no extra cost to the Project budget.

Table 6-2. The Implementation Schedule

Time (Weeks)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
OFFICIAL WORKS																	
Consultancy Tender Process																	
Design Review																	
Tender Document Preparation																	
Construction Tender																	
PROCUREMENT PROCESS																	
CONSTRUCTION WORKS																	
Excavation Works																	
Construction Assembly																	
Wire Fence Installation																	
ELECTRICITY WORKS																	
Panel Assembly																	
DC Cable Assembly																	
Inverter Installation																	
AC Cable Assembly																	
Transformer Assembly																	
Energy Transmission Line Installation																	
ACCEPTANCE PROCEDURES																	

ANNEXES

Annex-A: EIA

Annex-B: Find Procedure

Annex-C:

Annex-D:

Annex-E:

Annex-F:

Hata! Başvuru kaynağı bulunamadı.

Annex-I:

Hata! Başvuru kaynağı bulunamadı. Form

Hata! Başvuru kaynağı bulunamadı. Database Form

Hata! Başvuru kaynağı bulunamadı.

Hata! Başvuru kaynağı bulunamadı. of Stakeholder Consultation Meeting

Annex-A: EIA Certification

T.C.
ÇEVRE, ŞEHİRCİLİK VE İKLİM DEĞİŞİKLİĞİ BAKANLIĞI
Çevresel Etki Değerlendirmesi, İzin ve Denetim Genel Müdürlüğü

ÇED OLUMLU BELGESİ

29.07.2022 tarih ve 31907 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren Çevresel Etki Değerlendirmesi Yönetmeliği'nin 14. maddesi gereğince; **"GÜNEŞ ENERJİ SANTRALİ (62,88 MWm/50,3 MWe-120,57 ha)"** projesi hakkında **"Çevresel Etki Değerlendirmesi Olumlu"** kararı verilmiştir.

Ömer ALBAYRAK
Bakan a.
Genel Müdür V.

Karar Tarihi : 10.05.2023
Karar No : 7094
Proje Sahibi : VAN SU VE KANALİZASYON İDARESİ GENEL MÜDÜRLÜĞÜ
Proje Yeri : Van İli, Edremit İlçesi, Bakımlı Mahallesi, Dağ Mevkii 890 Numaralı Parsel
Kapasite: (62,88 MWm/50,3 MWe-120,57 ha)

Annex-B: Chance Find Procedure

1. PURPOSE

The Archaeological Chance Find Procedure is prepared to provide guidance to all parties and employees regarding the actions to be taken in case of the discovery of an archaeological asset.

2. SCOPE

It is likely to encounter archaeological findings during the construction activities of the project. Any type of activity requiring excavation or any type of intervention on the landscape through earthworks has the potential to lead to the discovery or destroying of archaeological entities.

3. PROCEDURE

Any physical remains of past human activity, including artifacts, plant, and animal remains, structural remains, and soil features are defined as archaeological entities. All actions to be carried out in case of discovery of an archaeological entity should comply with the Law on Cultural and Natural Assets Conservation Law Numbered 2863 (Law Number: 2863, Date of Approval: 21.7.1983, Publication in the Official Gazette: Date: 23/7/1983 No: 18113).

In the event of the discovery of an archaeological entity, the following procedure shall be implemented:

- All construction and other relevant activities in the vicinity of the chance find will be ceased by the Environmental Engineer or Consultant Archaeologist (if required) of the Project or anyone, who encounters a chance find.
- In case of a chance find is encountered, it will contact the Environmental Engineer.
- The Project Environmental Engineer contacts museum directorate archaeologist immediately.
- Environmental Engineer of the Project will properly secure chance find the site via flagging, no-entry signs, etc. and prevent/limit the vehicle traffic within the immediate vicinity of chance find and protect the site by not moving, removing or further disturbing the chance find.
- Boundaries of discovered archaeological site coordinates will be recorded and the photograph of the location and the finding shall be taken, and video record should be made.
- The site and its vicinity will be secured against damage or loss until a final decision is made about this site by Board.
- Environmental Engineer of the Project will fill out Part A of Chance Find Form and send a copy to Museum archaeologist within 24 hours keeping a hard copy for the Project as a record and registering a copy to Document Control Centre (“DCC”),
- If any human remains such as a contemporary grave or graveyard are noticed, security forces will be informed. Unless the remains are determined to be recent, the local administration (village head: mukhtar, or district governor) has the full authority.
- Further steps to be followed and proper procedures to be implemented for the management of the finding(s) (changes in the layout, conservation, preservation, restoration, or salvage) will be decided and reported in writing by the Museum Directorate.

- In case the site is considered to be of no significance by the Museum Directorate, the Project Environmental Engineer will inform the Construction Manager and they will inform their managers. Subsequent of filling out Part B of Chance Find Form by Environmental Engineer of the Project within 24 hours while retaining a copy of the Chance Find form as a record, the construction works will proceed since no further actions are required.

In case the site is considered as significant by the Museum Directorate, the Project Environmental Engineer will be informed by the Museum Directorate about the decision on further actions. The Project Environmental Engineer will inform the construction manager and their managers. Subsequent of filling out Part B of Chance Find Form by Environmental Engineer of the Project within 24 hours while retaining a copy of the Chance Find form as a record, the instructions of the Museum Directorate will be followed. After some field investigation, Museum Directorate will declare their decision on the significance of the site, and the actions to be followed as per their decision are summarized in the following table.

Site to be of No Significance	Site to be of Minor Significance	Site to be of Major Significance
• Environmental Engineer will inform their managers, • Environmental Engineer will record the decision in Part C of Chance Find Form within 24 hours, • Environmental Engineer will retain a copy of Chance Find form as a record, • No further actions will be required, • This step closes out the chance find procedure, • Construction activities may resume.	• A salvage excavation is to be completed • Museum Directorate will provide instructions, and/or supervision for salvage archaeological excavation the Project Environmental Engineer, • The Environmental Engineer will inform their managers, • Under the guidance of Museum archaeologist (following instructions from other authorities, Van Regional Board, etc.), the Project will provide a team of qualified archaeologists to conduct the salvage excavation, • The Environmental Engineer will provide a report to the Museum Directorate, • Regional Board Directorate of Protection of Cultural Heritage will officially confirm the completion of recovery and inform the Environmental Engineer will inform the construction manager that no further actions are required, • The Environmental Engineer will inform other managers, • Environmental Engineerwill record the decision in Part C of Chance Find Form within 24 hours, • Environmental Engineer of the Project will retain a copy of Chance Find form as a record, • No further actions will be required, • This step closes out the chance find procedure • Construction activities may resume.	• Excavation is to be completed, • The site will be treated according to “Law on the Conservation of Cultural and Natural Property (2863)”, • Museum Directorate will provide instructions, and/or supervision for salvage archaeological excavation to the Environmental Engineer the Project’s Environmental Engineere will inform the Construction Manager, • Once the excavation is completed, Representative of the Project will provide a report to Quality Assurance Manager, • The Project Environmental Engineer will provide a report to the Museum Directorate, • Regional Board Directorate of Protection of Cultural Heritage will officially confirm the completion of recovery and inform the Environmental Engineer, • Site will be officially recorded and protected according to Turkish regulations, • The Environmental Engineer will inform the Construction Manager that no further actions are required, or that a relocation is required, • Environmental Engineer of the Project will record the decision in Part C of Chance Find Form within 24 hours, • Environmental Engineer of the Project will retain a copy of Chance Find form as a record, • No further actions will be required, • This step closes out the chance find procedure, • Construction activities may resume, or relocation is implemented.

Contact Information of Related Museum Directorates and Regional Board Directorates

Museum Contact Information

Name:	Contact Detail:	Address:
Van Museum Directorate	**0 (432) 216 11 39** **vanmuzesi@kulturturizm.gov.tr**	Şerefiye Mah. Hacıosman Sok. No: 9 İpekyolu / VAN

Contact Information of Regional Board Directorates

Name:	Contact Detail:	Address:
Van Regional Board of Conservation of Cultural Heritage	**(0432) 212 08 51** **(0432) 212 08 58** **(0432) 212 08 56 (Fax)** **vankurul@ktb.gov.tr**	Şerefiye Mah. Santral 6. Sk. Haydaroğlu İş Merkezi B Blok Kat: 3 65100 **İpekyolu / VAN**

Chance Find Register

CHANCE FIND REGISTER
Reporting Period:

Total of chance find	
To date:	**This reporting Period:**

ID (*)	DATE OF CHANCE FIND	LOCATION	CHANCE FIND SUMMARY	NAME OF AUTHORITY NOTIFIED	DATE PART A COMPLETED	DATE PART B COMPLETED	DATE PART C COMPLETED	ACTION TAKEN	STATUS OPEN OR CLOSED	REMARKS

(*) Keep same ID format

PART A **BÖLÜM A**		
Location: *Mevkii*	Date: *Tarih*	ID:
Name of person reporting chance find: *Rastlantısal buluntuyu rapor eden kişinin ismi*		
Name of contractor employee contacted: *İletişime geçilen yüklenici çalışanı ismi*		
Was work stopped in the immediate vicinity of chance find? *Rastlantısal buluntunun tam çevresinde iş durduruldu mu?*	☐ Yes *Evet*	☐ No *Hayır*
Was a buffer zone created to protect chance find? *Rastlantısal buluntuyu korumak için tampon bölge oluşturuldu mu?*	☐ Yes *Evet*	☐ No *Hayır*
NOTIFICATION ***(BİLDİRİM)***		
Contractor construction manager contacted *Yüklenici inşaat müdürü ile irtibata geçildi*	☐ Yes *Evet*	☐ No *Hayır*
The Project Environment Representative contacted *Projenin Çevre Temsilcisi ile iletime geçildi*	☐ Yes *Evet*	☐ No *Hayır*
CHANCE FIND DETAILS ***(RASLANTISAL BULUNTU AYRINTILARI)***		
GPS coordinates *GPS koordinatları*	Photo record ☐Yes ☐No (HD quality – no cell phone photos) *Fotoğraf kaydı Evet Hayır* *(HD kalitesinde – cep telefonu fotoğrafı değil)* If not, explain why: *Yok ise nedenini açıklayınız* Other records ☐Yes ☐No Specify (drawings, HD quality videos, etc.): *Diğer kayıtlar Evet Hayır Belirtin* *(çizimler, HD kalite videolar, vb.)*	
Description of chance find: *Rastlantısal buluntunun tanımı*		
Description of site and vegetation: (e.g. surface sediment type, ground surface visibility, distance to closest watercourse, etc.) *Sahanın ve bitki örtüsünün tanımı: (örn. Yüzey sediman türü, yüzey zemin görünürlüğü, en yakın suyoluna olan mesafe, vb.)*		

PART B
BÖLÜM B

NOTIFICATION OF_____MUSEUM DIRECTORATE ARCHAEOLOGIST
(_____*MÜZE MÜDÜRLÜĞÜ ARKEOLOĞUNA BİLDİRİ)*

The Project Environment Representative contacted museum directorate archaeologist ☐ Yes
☐No

Projenin Çevre Temsilcisi, müze müdürlüğü arkeoloğu ile irtibata geçti.

☐Evet
☐Hayır

Date of notification:
Bildirim tarihi

Name of museum directorate archaeologist:
Müze müdürlüğü arkeoloğunun ismi

Contact number of museum directorate archaeologist:
Müze müdürlüğü arkeoloğunun iletişim numarası

DECISION OF_____MUSEUM DIRECTORATE ARCHAEOLOGIST
(_____*MÜZE MÜDÜRLÜĞÜ ARKEOLOĞUNUN KARARI)*

Date of initial investigation:
İlk araştırma tarihi

Site of no significance - Construction to no further investigation – End of chance find *Önemsiz saha – İnşaat daha fazla araştırma yapılmadan devam edilebilir – rastlantısal buluntu prosedürün sonu.* Date of notice to resume work: *İşe başlama tarihi bildirisi*	☐ Site of significance - Further investigation required *Önemli saha – Ek araştırma gerekmektedir* Fill out Part C *Bölüm C'yi doldurun.*

Name of museum directorate archaeologist:
Müze müdürlüğü arkeoloğunun ismi

Contact information:
İletişim numarası

The Environment Representative contacted ☐ Yes ☐ No
Projenin Çevre Temsilcisi ile irtibata geçildi *Evet* *Hayır*

PART C ***BÖLÜM C***		
FURTHER FIELD INVESTIGATION ***(EK SAHA ARAŞTIRMASI)***		
☐ Site of no significance *Önemsiz saha*	☐ Site of minor significance *Az önemli saha*	☐ Site of major significance *Çok önemli saha*
Describe additional work to be conducted: *Yapılması gereken ek işlerin tanımlayın*		
Date started: *Başlangıç tarihi*	Date completed: *Bitiriş tarihi*	
Date of notice to resume work: *İşe başlama tarihi bildirisi*		
Name of museum directorate archaeologist: *Müze müdürlüğü arkeoloğunun ismi:* Contact information: *İletişim numarası*		
Environment Representative contacted *Çevre Temsilcisi ile irtibata geçildi*	☐ Yes *Evet*	☐ No *Hayır*
The Project Environment Representative contacted *Projenin Çevre Temsilcisi ile irtibata geçildi*	☐Yes *Evet*	☐No *Hayır*

Annex-C: Land Title

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 27-9-2022-15:48

webtapu

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var + Pasif Malikler)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	KOM
Taşınmaz Kimlik No:	99651799
İl/İlçe:	VAN/EDREMİT
Kurum Adı:	Edremit(VAN)
Mahalle/Köy Adı:	BAKIMLI Mah.
Mevkii:	DAĞ
Cilt/Sayfa No:	1/30
Kayıt Durum:	Aktif

Ada/Parsel:	0/890
AT Yüzölçüm(m2):	1205685.16
Bağımsız Bölüm Nitelik:	
Bağımsız Bölüm Brüt YüzÖlçümü:	
Bağımsız Bölüm Net YüzÖlçümü:	
Blok/Kat/Giriş/BBNo:	
Arsa Pay/Payda:	
Ana Taşınmaz Nitelik:	Mera

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
425587644	(SN:7789520) KAMU ORTA MALI VKN:	-	1/1	1205685.16	1205685.16	İfraz İşlemi (TSM) 20-04-2018 1333	-

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (**https://webtapu.tkgm.gov.tr** adresinden) **-xMr33ab2PG** kodunu Online İşlemler

1 / 2

alanına yazarak doğrulayabilirsiniz.

Annex-D: Land Class Change Letter

T.C.
VAN VALİLİĞİ
İl Tarım ve Orman Müdürlüğü

Sayı : E-12679211-115.02[115.02]-8418791
Konu : Tahsis Amacı Değişikliği Uygulamaları

06.01.2023

VAN BÜYÜKŞEHİR BELEDİYE BAŞKANLIĞINA
(İmar ve Şehircilik Dairesi Başkanlığı)

İlgi : 06.12.2022 tarih ve 86170 sayılı yazınız.

İlgi tarih ve sayılı talep üzerine, İlimiz Edremit İlçesi Bakımlı Mahallesi 890 nolu mera parselinin 500.000 m²'lik kısmının "İmar Uygulamaları" kapsamında kullanılması ile ilgili Tahsis Amacı Değişikliği talebi 4342 sayılı Mera Kanununun 14.maddesi gereği İlimiz Mera Komisyonunun 09.12.2022 tarih ve 1212 sayılı kararı ile uygun görülmüştür.

Mera İnceleme Raporu düzenlenmesi aşamasında, yukarıda belirtilen yerde, arazi çalışmalarını, 4-a ve 4-b cetvellerinin hazırlanması [illegible] ailelerinin tespiti ve görüşlerini içeren imza cetvellerinin hazırlanması, hayvan varlığının tespiti, geçim kaynağı tespiti v.b. çalışmalarını gerçekleştiren Valilik Mera Komisyonunca görevlendirilen teknik elemanlar adına tahakkuk eden harcırahın, 4342 sayılı Mera Kanunu ve bu Kanuna bağlı 12.04.2005 tarihli ve 25784 sayılı Resmi Gazetede yayımlanarak yürürlüğe giren Mera Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmeliğin 2 inci maddesinin (e) bendi gereği, banka hesaplarına yazınız ekinde gönderilen Mera Kanunu Yönetmeliği ve arazi çalışma takviminin dikkate alınarak yatırılması hususunda;

Gereğini arz ederim.

İbrahim GÖRENTAŞ
İl Müdürü V.

Ek : Harcırah cetveli ve ekleri (7 sayfa)

Annex-E: Air Quality Measurement Report

KARAMAN ÇEVRE LABORATUVAR VE MÜHENDİSLİK A.Ş.

Kalecik Mah. Erciş Yolu Bulv. No:126 JE Tuşba /VAN
Tel: 0432 502 02 24
e-mail:info@karamancevre.com.tr web : www.karamancevre.com.tr

VASKİ GENEL MÜDÜRLÜĞÜ
(32 MW GES ALANI)

Halil Ağa Mah. İpekyolu Bulvarı No: 86/A
İpekyolu/VAN

İM.23.028
HAVA EMİSYON ÖLÇÜM RAPORU
KASIM/ 2023

Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz, kısmen ve mühürsüz raporlar geçersizdir. Bu ölçüm raporu, sadece sahada yapılan ölçümleri ve laboratuvara gelen numuneleri temsil eder ve başka bir amaçla kullanılamaz.- Ölçüm sonuçları, sadece

KARAMAN ÇEVRE LABORATUVAR VE MÜHENDİSLİK A.Ş.

Kalecik Mah. Erciş Yolu Bulv. No:126 JE Tuşba/VAN
Tel: 0432 502 02 24
e-mail:info@karamancevre.com.tr
web : www.karamancevre.com.tr

AB-1233-T

HAVA EMİSYON ÖLÇÜM RAPORU
Testing Report

Rapor Numarası Testing Report No	IM.23.028
Müşterinin Adı/Adresi Customer Name / Address	VASKİ GENEL MÜDÜRLÜĞÜ/Halil Ağa Mah. İpekyolu Bulvarı No: 86/A İpekyolu/VAN
Ölçüm Plan Numarası Test item Plan No	T.23.157-1
Teklif Sözleşme No/Mellbes Başvuru No Order No	T.23.157 / -
Ölçümde Kullanılan Metotlar Name and identity of the tests item	TS EN 12341
Ölçümün Amacı Purpose of taking the test item	Özel Talep
Ölçümün Yapıldığı Tarih Date of Test	11.11.2023-13.11.2023
Ölçümün Yapıldığı Yer Location of Test	32 MW Güneş Enerji Santrali/ Bakımlı Mahallesi, Dağ Mevkii 890 Numaralı Parsel Edremit/VAN
Numunenin Kabul Tarihi The date of receipt of the test item	13.11.2023
Açıklamalar Remarks	https://karaman.ealab.io/rapor-dogrula adresinden e-imzalı raporunuzu doğrulayabilirsiniz.
Raporun Sayfa Sayısı Number of pages of the Report	48 Sayfa ve 2 EK

Deney laboratuvarı olarak faaliyet gösteren Karaman Çevre Laboratuvar ve Mühendislik A.Ş., TÜRKAK' tan AB-1233-T ile TS EN ISO/IEC 17025/2017 standardına göre akredite edilmiştir.
Karaman Çevre Laboratuvar ve Mühendislik A.Ş., accredited by TURKAK under registration number AB-1233-T for TS EN ISO/IEC 17025/2017 s test laboratory.
Türk Akreditasyon Kurumu (TÜRKAK) deney raporlarının tanınırlığı konusunda Avrupa Akreditasyon Birliği (EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanıma anlaşması imzalamıştır.
Turkish Accreditation Agency (TURKAK) is a signatory to the European CO-OPERATİON FOR Accreditation (EA) Multilateral Agreement MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test eports.
Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deney metotları bu sertifikanın tamamlayıcı konu dan takip eden sayfalarda verilmiştir.
The test and /or measurement results, the uncertainties(if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

Rapor Sorumlusu Prepared by	Laboratuvar Müdürü Approved by	Mühür ve Tarih
Fatma AYTEKİN e-imzalıdır	Şevda KARAMAN e-imzalıdır	16.11.2023

a) İşletmede bulunan ve ölçüm yapılan her bir tesisin genel yerleşim içindeki fotoğrafları ve/veya uydu fotoğrafları.

Şekil 2. PM_{10} ve $PM_{2,5}$ Ölçüm Noktaları uydu görüntüsü

Şekil 3. Tesise ait uydu görüntüsü

16.11.2023 Tarihinde VASKİ GENEL MÜDÜRLÜĞÜ (32 MW GES ALANI) firmasında yapılan ilave ölçüm Ölçümleri sonucunda hazırlanan

11) ÖLÇÜM SONUÇLARI VE DEĞERLENDİRİLMESİ,

Tablo 11.1 Tesiste Yapılan PM_{10} 24 Saatlik Ölçümlerinin EK 1-2.2 Sınır Değerleri İle Karşılaştırılması

No	Kaynak Adı	Koordinat	Ölçüm Süresi	Ortalama Değer (µg /Nm³)	Sınır Değer (µg /Nm³)
1	1.Ölçüm Noktası (PM.23.137/1)	X:38.393995° Y:43.195802°	24 Saatlik	34,22	50
2	2.Ölçüm Noktası (PM.23.138/1	X:38.393792° Y:43.194549°	24 Saatlik	33,89	50

Tablo 11.2 Tesiste Yapılan $PM_{2,5}$ 24 Saatlik Ölçümlerinin EK 1-2.2 Sınır Değerleri İle Karşılaştırılması

No	Kaynak Adı	Koordinat	Ölçüm Süresi	Ortalama Değer (µg /Nm³)	Sınır Değer (µg /Nm³)
1	1.Ölçüm Noktası (PM.23.137/2)	X:38.393995° Y:43.195802°	24 Saatlik	2,98	-
2	2.Ölçüm Noktası (PM.23.138/2)	X:38.393792° Y:43.194549°	24 Saatlik	2,47	-

- Tesiste hakim rüzgar yönü dikkate alınarak, 2 ölçüm noktasında PM10 ve PM2,5 parametrelerinin ölçümleri yapılmıştır. Ölçüm sonuçları her periyot ölçümleri; SKHKKY EK 1-2.2' de belirtilen **sınır değerin altında çıkmıştır.**

Annex-F: Noise Measurement Report

KARAMAN ÇEVRE LABORATUVAR VE MÜHENDİSLİK A.Ş.

Kalecik Mah. Ereiş Yolu Bulv. No:126 JE Tuşba/VAN

Tel: 0432 502 02 24

e-mail:info@karamancevre.com.tr web : www.karamancevre.com.tr

VASKİ GENEL MÜDÜRLÜĞÜ
(32 MW GES ALANI)

Halil Ağa Mah. İpekyolu Bulvarı No: 86/A
İpekyolu/VAN

G.23.009
SES SEVİYESİ ÖLÇÜM RAPORU
KASIM / 2023

Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçerlidir.Bu ölçüm raporu, sadece sahada yapılan ölçümleri ve laboratuvara gelen numuneleri temsil eder ve başka bir amaçla kullanılamaz.- Ölçüm sonuçları, sadece ölçüm sırasındaki proses koşulları ile ilgilidir. Laboratuvar; bu raporu, müşterinin izni olmadan üçüncü şahıslara göndermez ve çoğaltmaz.

FR.21.03/rev02/22.08.2023 Sayfa 1/37

KARAMAN ÇEVRE LABORATUVAR VE MÜHENDİSLİK A.Ş.

Kalecik Mah. Erciş Yolu Bulv. No:126 JE Tuşba/VAN
Tel: 0432 502 02 24
e-mail:info@karamancevre.com.tr
web : www.karamancevre.com.tr

AB-1233-T
G.23.009
1/37

SES SEVİYESİ ÖLÇÜM RAPORU
Testing Report

Rapor Numarası Testing Report No	G.23.009
Müşterinin Adı/Adresi Customer Name / Address	VASKİ GENEL MÜDÜRLÜĞÜ/Halil Ağa Mah. İpekyolu Bulvarı No: 86/A İpekyolu/VAN
Ölçüm Numarası Test item No	-
Teklif Sözleşme No/Melbes Başvuru No Order No	T.23.157 / -
Ölçümde Kullanılan Metotlar Name and identity of the tests item	TS ISO 1996-1/TS ISO 1996-2
Ölçümün Yapıldığı Tarih Date of Test	11.11.2023-13.11.2023
Ölçümün Yapıldığı Yer Location of Test	32 MW Güneş Enerji Santrali/Bakımlı Mahallesi, Dağ Mevkii 890 Numaralı Parsel Edremit/VAN
Açıklamalar Remarks	https://karaman.enlab.io/rapor-dogrula adresinden e-imzalı raporunuzu doğrulayabilirsiniz.
Raporun Sayfa Sayısı Number of pages of the Report	37 Sayfa ve 3 EK

Deney laboratuvarı olarak faaliyet gösteren Karaman Çevre Laboratuvar ve Mühendislik A.Ş. , TÜRKAK' tan AB-1233-T ile TS EN ISO/IEC 17025/2017 standardına göre akredite edilmiştir.
Karaman Çevre Laboratuvar ve Mühendislik A.Ş., accredited by TURKAK under registration number AB-1233-T for TS EN ISO/IEC 17025/2017 as test laboratory.

Türk Akreditasyon Kurumu (TÜRKAK) deney raporlarının tanınırlığı konusunda Avrupa Akreditasyon Birliği (EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanıma anlaşması imzalamıştır.
Turkish Accreditation Agency (TURKAK) is a signatory to the European CO-OPERATION FOR Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

Deney ve/veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deney metotları bu sertifikanın tamamlayıcı kısmı olan takip eden sayfalarda verilmiştir.
The test and /or measurement results, the uncertainties(if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

Rapor Sorumlusu Prepared by Şeyda KARAMAN	Laboratuvar Müdür Vekili Approved by Ömer Arif HAR	Mühür ve Tarih 16.11.2023
e-imzalıdır	e-imzalıdır	

3. **Ölçüm Noktaları ve Koordinatları**

- Ölçüm Koordinatları arasındaki mesafe **Tablo-2**'de sunulmuştur.

Tablo-2: Ölçüm Noktaları Arasındaki Mesafe

Ölçümün Yapıldığı Yer	Ölçüm Koordinatları
Hassas Yapı-1	X:38.393995* Y:43.195802*
Hassas Yapı-2	X:38.393792* Y:43.194549*

4. **Arka Plan Ses Ölçüm Ses Seviyeleri**

- Arka Plan Ölçümlerine ait Leq verileri **Tablo-3**'de sunulmuştur.

Tabln - 3: Bakımlı Mahallesinde Alınmış Arka Plan Ses Ölçüm Ses Seviyeleri

Ölçüm Dilimi	Ölçüm Noktası	Ortalama Gürültü Düzeyleri (dBA)
		Leq
Gündüz (07:00-22:00)	Hassas Yapı-1	50.6
Gece (22:00-07:00)	Hassas Yapı-1	40.2
Gündüz (07:00-22:00)	Hassas Yapı-2	54.4
Gece (22:00-07:00)	Hassas Yapı-2	49.8

*Koordinatlar 37S Evrensel Enlem Merkatörü cinsindendir.

5. **Ölçüm Yüksekliği.**

- Bir bina içinde veya civarında gürültüye maruz kalma ile ilgili olarak stratejik gürültü ölçümleri uygulamak için yapılacak ölçümlerde daha farklı yüksekliklerin de seçilmesi mümkündür. Dışarıda bina yanlarında yapılan ölçümlerde, ölçümler bir binanın maruz kaldığı gürültünün önemli olduğu yerlerde yapılmalıdır. Dış mekânda mikrofon konumu; Ölçüm noktaları kaynaktan yayılan gürültünün açıkca duyulduğu noktalarda seçilir. Ölçüm noktaları yer dışındaki yansıtıcı yüzeylerden 3,5 m uzaklıkta konumlandırılır. Eğer bu konum için yeterli alan yoksa yüzeye 1m'de konumlandırılır. (Yansıtıcı yüzeyden 1 m uzakta ölçülen değer 3,5 m mesafede ölçülen değerden 2,5 dB fazladır. Bu yüzden bir düzelme yapılır, yalnız baskın tonların tespiti halinde düzeltme yapılmayabilir. Mikrofonun zemin yüksekliği 1,2-1,5 m olmalıdır.

Annex-G: Authorization Letter About ETL

T.C.
ENERJİ VE TABİİ KAYNAKLAR BAKANLIĞI
Türkiye Elektrik Dağıtım Anonim Şirketi Genel Müdürlüğü
Yatırımlar İzleme Dairesi Başkanlığı

Sayı : E-71836423-605.99-707264 08.06.2023
Konu : Yeraltı Şebeke Görüşü

DAĞITIM YERLERİNE

İlgi : Ali GÖKTÜRK'ün 22.05.2023 tarihli dilekçesi.

İlgi dilekçe ile 11.05.2023 tarih ve 23.LUY.GES.65.0012 sayılı VASKİ-2 GES projesinin bağlantı hattının TEDAŞ 20.Bölge Müdürlüğüne sunulduğu bağlantı hattı için mera alanından arsa tahsisi yapıldığından bahisle bölgeyle ilgili yeni imar planı uygulaması başlatıldığı belirtilerek bağlantı hattının çağrı mektubunda yeraltı kablosu olarak belirtildiğinden TEDAŞ tarafından uygunluk verilmesi talep edilmektedir.

Yeraltına alınması talep edilen bölge ile ilgili olarak, tesis edilmesi düşünülen yeraltı hattının kapasitif etki vb. teknik kriterler göz önüne alınması ve kamulaştırma işlerine uyulması kaydıyla tesis edilmesinin uygun olacağı düşünülmektedir.

Gereğini rica ederim.

Yakup AVAN
Daire Başkanı

Mahmut YAĞIZ
Genel Müdür Yrd.

Dağıtım:

Gereği:
Sayın Ali GÖKTÜRK
Güvenevler Mah 29049 504 No 22 Şehitkamil /
GAZİANTEP

Bilgi:
Tedaş 20. Bölge Müdürlüğüne

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: 9727CB9E-5E70-4223-8BD6-D61F36F12808 Doğrulama Adresi: https://www.turkiye.gov.tr/enerji-ebys

Annex-H: Traffic Management Plan

TÜRKİYE PUBLIC and MUNICIPAL RENEWABLE ENERGY PROJECT

VAN WATER and SEWERAGE ADMINISTRATION 32 MW SOLAR POWER PLANT PROJECT

TRAFFIC MANAGEMENT PLAN

Revision : REV.00

Submission : March 2024

Project Information

Project	Details
Name	Türkiye Public and Municipal Renewable Energy Project Van Water and Sewerage Administration 32 MW Solar Power Plant-II Project Environmental and Social Management Plan (ESMP)
Project Owner	Van Water and Sewerage Administration (VASKİ)
Client	İller Bankası A.Ş (İLBANK)
Prepared by	MGS Project Consultancy Engineering Trade Co. Ltd. (MGS)

Company	Client Contact	Version	Date Issued	Method of Delivery
İLBANK	Sevil UYSAL	Rev.00	17.02.2024	e-mail: suysal1@ilbank.gov.tr
VASKİ	Ülker Cem KAPLAN	Rev.00	17.02.2024	e-mail: pdf

Prepared by:

Pelin Deniz YOĞURTÇU	Project Manager/International Projects Coordinator
Hilal AYDIN	Environmental Specialist / Environmental Engineer
Fikret VAROL	Environmental Specialist / Environmental Engineer
Lütfiye Hazal GÜÇLÜ	Environmental Specialist / Environmental Engineer
Begüm AYDOĞAN	Environmental Specialist / Environmental Engineer
Hüseyin GÜNGÖR	HSE Expert
Cansu GÜLER	HSE Expert / Environmental Engineer
Furkan AKSU	Social Specialist / Sociologist
Merve YILDIRIM	Social Specialist / Sociologist

Table of Contents

Tables

Figures

Abbreviations

DCC	Document Control Center
EIA	Environmental Impact Assessment
ESS	Environmental and Social Standard
ESHS	Environmental, Social, Health and Safety
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ETL	Energy Transmission Line
HR	Human Resources
HSE	Health and Safety and Environment
IFC	International Finance Corporation
ILBANK	İller Bankası A.Ş.
KPI	Key Performance Indicator
MGS	MGS Proje Müşavirlik Mühendislik Ticaret Ltd. Şti. / MGS Project Consultancy Engineering Trade Limited Co.
OHS	Occupational Health and Safety
Project	VASKİ 32 MWe SPP Project
Project Company	VASKİ / Van Water and Sewerage Administration
PS	Performance Standard
SPP	Solar Power Plant
TMP	Traffic Management Plan
WBG	World Bank Group

1 INTRODUCTION

This Traffic Management Plan ("TMP") has been prepared to complement the work done for the "VASKİ 32 MW Solar Power Plant Project ("the Project")" to be evaluated according to World Bank Environmental and Social Framework ("ESF") including applicable Environmental and Social Standards (ESSs), World Bank Group (WBG) General Environment Health and Safety (EHS) Guidelines and Industry Sector Guidelines, Iller Bankası A.Ş ("ILBANK") Environmental and Social Management System (ESMS), and the national legislation in force in Türkiye. The reference number for this Management Plan is VASKİ-PLN-HSSE-TMP-001.

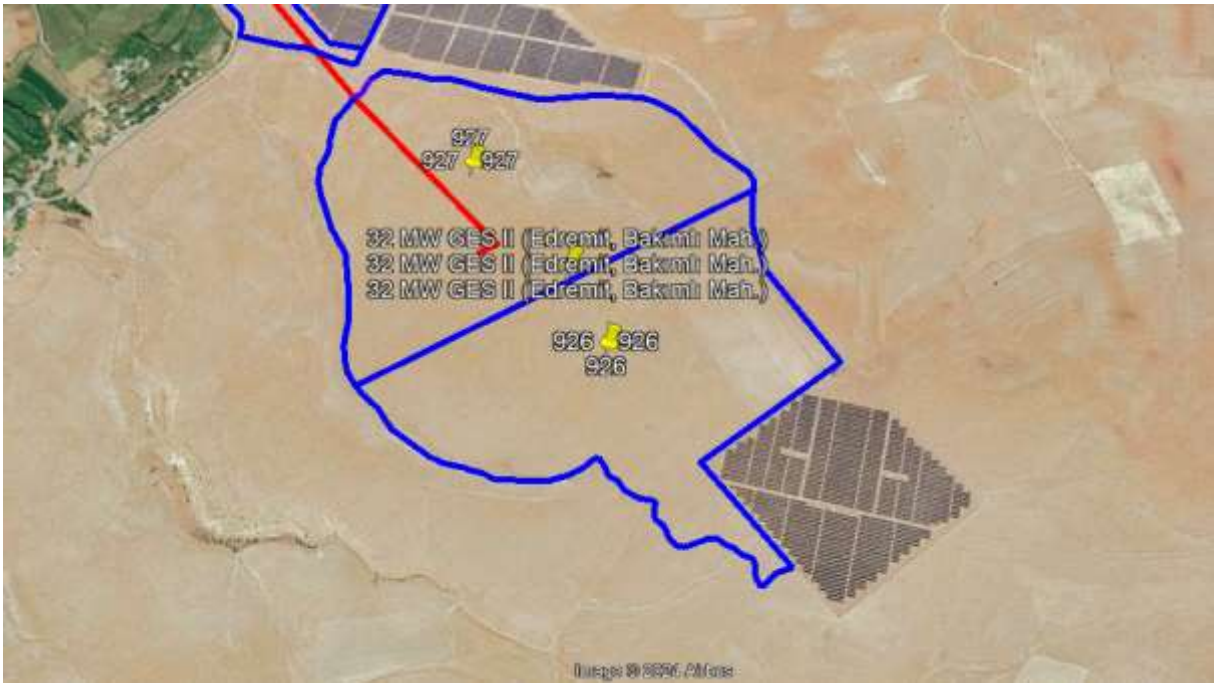
1.1 Project Information

VASKİ is an independent budgeted public legal entity established under Van Metropolitan Municipality in accordance with the Law No. 2560 dated 20/11/1981. VASKI's services are limited to the jurisdiction of Van Metropolitan Municipality. However, services related to the water resources utilized by the city are carried out by the Administration even outside the boundaries of the Metropolitan Municipality. The duties and powers to carry out water and sewerage services, to establish, maintain and operate dams and other facilities necessary for this purpose, to rehabilitate streams, and to market spring water or water produced after treatment, which are among the duties written in Article 7, Paragraph 1, Clause (r) of the Metropolitan Municipality Law No. 5216 dated 23/07/2004, belong to the Administration.

VASKİ SPP 32 MWe Project is planned in VAN Province Edremit district Bakımlı neighborhood 0 island 890 parcel. The parcel in question has an area of 1.205.685,16 m2 and 460.800 m2 of it will be used for the project area, the ownership belongs to the treasury and has been allocated to VASKİ, which is the owner of the activity. With this project, 77% of VASKI's total consumption will be met.

In accordance with the national EIA Regulation that entered into force with the Official Gazette dated 29.07.2022 and numbered 31907, VASKİ 32,000 kwe solar energy project is within the scope of EIA as per the legislation due to its installation on land. In this context, a final EIA Report was published in April 2023 for a total capacity of 62.88 MWm/50.3 MWe-120.57 ha. However, this Project covers only 32 MW of SPP area. The area where the project will take place has a parcel number of 890. This parcel is divided into two. In the first phase, activities will start on parcel number 926 (*see Figure 1-1*).

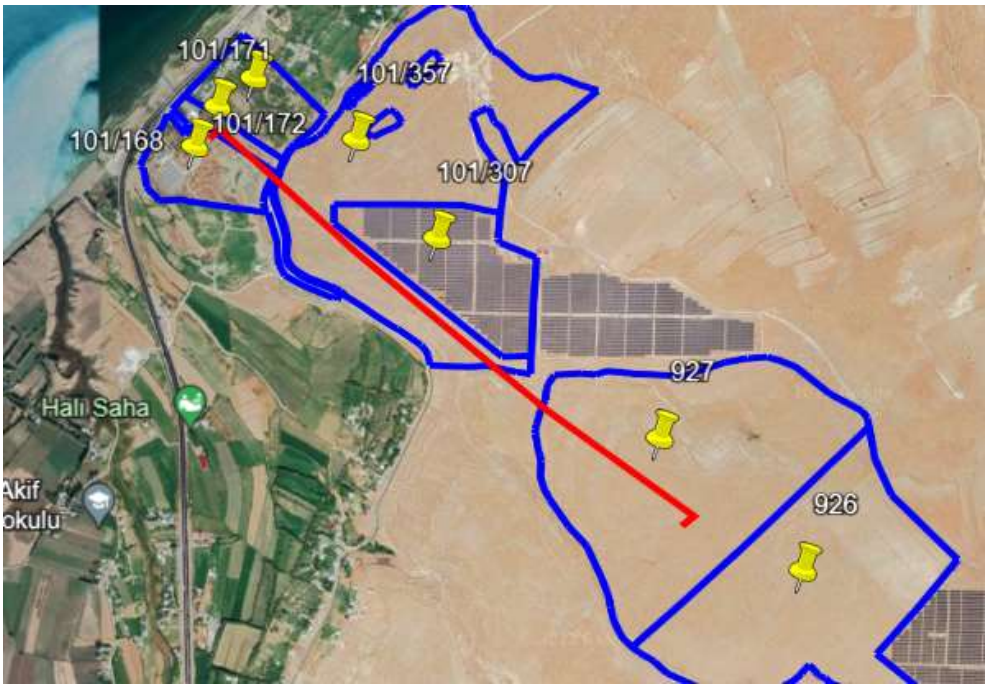
Figure 1-1.Project Activities Area Map



In this contex, in VASKİ 32MWe SPP project, the land structure and the technology planned to be used were determined and designed according to the existing productions. During the settlement, the angle of the sun was determined as 300 degrees according to the coordinates of the region. Due to the high level of solar radiation, a fixed angle system was designed. Project Main Components: 69,888 panels with 545 wp power, 128 inverters with 250 kw power, 13 2,500 kva transformers, 2 1600 kva transformers, 15 distribution panels, 2 distribution centers.With this Project, the installation of a Solar Power Plant consisting of Photovoltaic Solar Energy Panels will be realized.

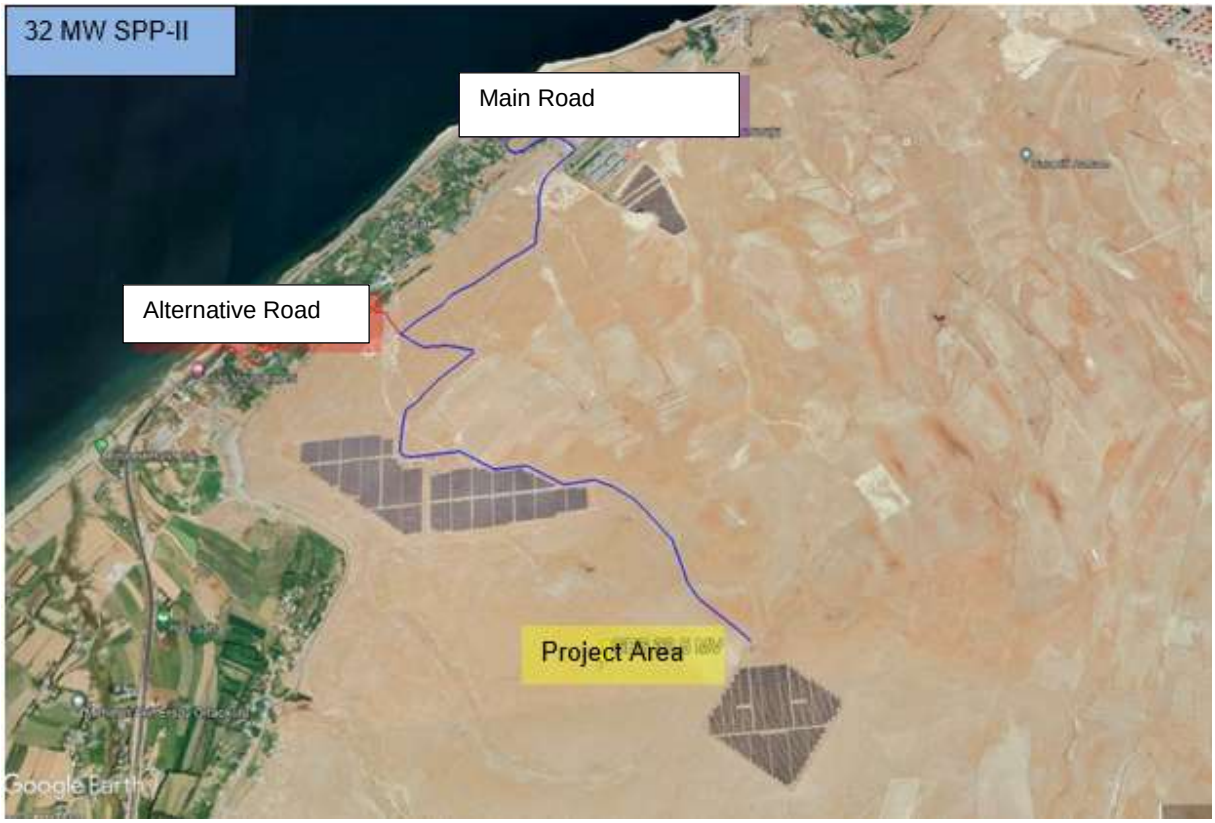
VASKİ solar energy project will be established on public land in VAN province EDREMIT district BAKIMLI neighborhood 0 island 890 parcel of VAN province Edremit district, 32.000 kwe power plant will be connected to ENGİL TM located 2,162 meters away in line with the permissions given by VEDAŞ. Although there is no private land along the ETL route (see *Figure 1-2**Hata! Başvuru kaynağı bulunamadı.***) preliminary permits have been obtained for the line passing through public land. ETL goes underground up to a certain point.

Figure 1-2. ETL Route Map



Access to the parcel numbered 0, block 890, where the project will be realized, is provided via existing roads and no new road work will be carried out within the scope of the Project. There are existing roads around the Project area. Access to the Project area is provided from the Bitlis-Van highway (D-300) at the Bakımlı and Kıyıcak neighborhood road junction. The main road access to the project area is shown in the Figure 2-4 below. Moreover, there is an alternative road from Bakımlı and Kıyıcak neighborhoods to the Project area. However, road between the neighborhoods is very narrow and poses a danger to the surrounding households, Utilization of this alternative route should be avoided as it passes through the settlements and if there will be arequirement to use that route then specific precoutions should be addressed. A map showing the main road route and alternative road route is given in the *Figure 1-3:*

Figure 1-3.Road Map Showing Access to the Project Area



1.2 Scope

This Traffic Management Plan is part of the Project's Environmental and Social Management System (ESMS); It covers all Project activities during the installation and operation phases. This plan defines Project commitments and approaches to minimize and mitigate potential adverse impacts and risks of road use due to the Project's traffic and transportation activities. This plan covers traffic management of pedestrians, vehicles and machinery.

Within the scope of this plan, it is aimed to minimize the possible effects by adding the vehicle movements created by the Project activities. This plan can be updated and revised as needed. The following items are covered by this plan:

- Legal requirements and standards,
- Basic duties and responsibilities,
- Measures to be taken regarding traffic and transportation management,
- Monitoring and reporting/record keeping,
- Training of personnel on traffic and transportation management.

This Traffic Management Plan overlaps and creates cross-links with other Management Plan as follows:

- Environmental and Social Management Plan (“ESMP”).

1.3 Purpose

The purpose of this plan is to describe and explain various measures to prevent, minimize and ameliorate adverse impacts from traffic movements throughout the life of the Project. To achieve this goal, the Traffic Management Plan will comply with WB ESF including applicable ESSs, WBG EHS

Guidelines and Industry Sector Guidelines, ILBANK ESMS, and the national legislation in force in Türkiye and international best practices. The main focus of this Traffic Management Plan is to provide a detailed description of mitigation measures and control practices to reduce, manage and sustain the impacts of traffic activities that will arise from the Project on local people, workers and existing roads during the installation and operation phases and to maintain traffic safety of the roads for the residents and employees. This Traffic Management Plan will provide a template for the Contractor to develop and implement for the construction phase of the project.

The purpose of this Traffic Management Plan is to:

- Defining the scope of the Management Plan and determining applicable management approaches,
- Define the main duties and responsibilities,
- Outline the Project Standards,
- Define Project commitments, implementation procedures and guidelines related to this Management Plan,
- To define monitoring, reporting procedures and Key Performance Indicators,
- Define traffic education requirements.

2 ROLES AND RESPONSIBILITIES

The key roles and responsibilities for the implementation of this plan are summarized below.

Table 2-1.Duties and Responsibilities

Duty	Responsibilities
General Manager	• Ensuring that this management plan is implemented throughout the life of the Project, • To provide approval of this Plan and the necessary resources for its implementation.
Deputy General Manager	• To ensure coordination with the parties for the implementation of the plan, • Informing the General Manager/ about the performance and needs of the TMP, • Approval of the necessary resources for this Plan and its implementation.
Occupational Health and Safety ("OHS") Expert	• General responsibility for the implementation of the Traffic Management Plan by fulfilling the project requirements, • To inform the departmants about the performance and needs of this Plan, • Ensuring compliance of the project with the Project Standards and requirements specified in this Plan,
Environmental Engineer	• Following this Management Plan and related procedures to ensure that the relevant activities are carried out, • Providing technical information / support to project departments and Contractors to ensure compliance with this Plan, • Periodically auditing and reviewing the project departments, site and Contractors in accordance with the requirements of this Plan and related Procedures • To ensure that the project staff is fully trained on traffic management practices, • Ensuring that all cases are properly investigated and reported, • To report all dangers, non-compliances and incidents, • Informing the OHS Expert about the applications, • Ensuring that all incidents are properly investigated and reported, • To report all hazards, nonconformities and incidents,
Human Resources ("HR")	• Supporting the OHS Expert and Environmental Engineering for the implementation of the plan, • To ensure the management of the complaint procedure in terms of traffic and transport safety and to inform the Engineering Manager and Environmental Engineer about the traffic-related complaints and concerns, • Interacting with local stakeholders involved in off-site traffic.
Field Engineers	• Provide oversight and routine inspection to ensure that relevant activities comply with the Management Plan.
Contractors / Subcontractors	• To ensure that the activities are carried out in accordance with this Management Plan and related Procedures, • Fulfilling the activities within the scope of their contracts,

Duty	Responsibilities
	• Ensuring that necessary tools and equipment are in good working order in accordance with the manufacturer's specifications.

3 PROJECT STANDARDS

During the construction and operational phases of the Project, applicable national and international standards must be compiled for all the Project activities. The applicable Turkish standards and requirements, Turkish EIA requirements, international standards, WB ESSs and guidance notes are the base of the Project Standards.

3.1 Turkish Legislation Standards and Requirements

Within the scope of the project, the following Turkish Legislation will be complied with:

- Highway Traffic Law No. 2918 and Article 134 of the Traffic Regulation,
- Exhaust Emission Control Regulation (Official Gazette dated 11.03.2017 and numbered 30004)
- Communiqué on the Prevention of Pollution Caused by Motor Vehicle Exhaust Gases (22.10.1992 Official Gazette and No. 21383),
- Regulation on the Transport of Dangerous Goods by Road (Official Gazette dated 24.10.2013 and numbered 28801)
- Transportation Law No. 4925 and Road Transport Regulation (Official Gazette dated 19.7.2003 and numbered 25173),

During transportation, tonnage, truck dimensions and load limit will be followed in accordance with the legislation and existing roads will be used in accordance with Turkish standards according to the anticipated traffic type and volume.

3.2 Applicable International Standards

Applicable international standards and guidelines:

- WB ESS-4: Community Health and Safety,
- IFC General EHS Guidelines: Community Health and Safety,
- World Bank Group EHS Guidelines.

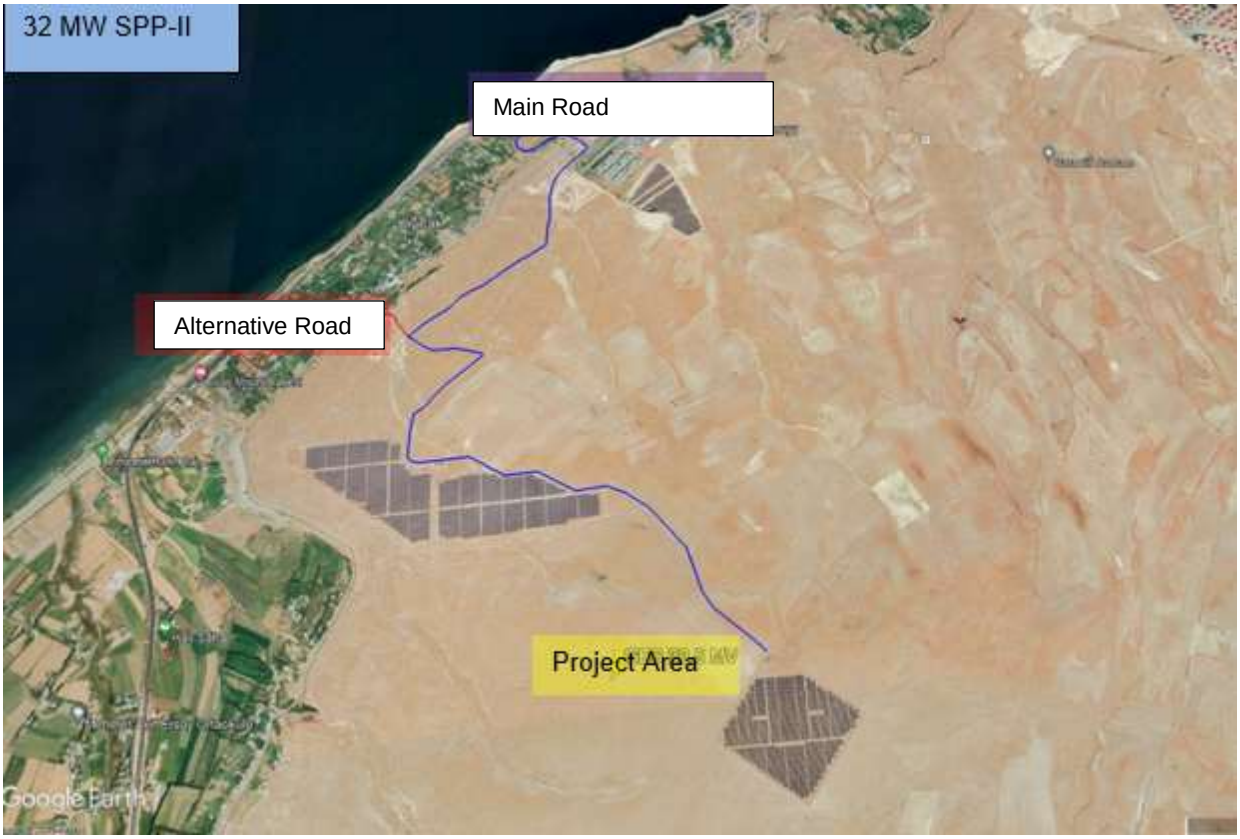
According to WB ESS- 4; The role of the activities in the scope of the project in traffic, potential traffic load and road safety risks need to be defined, evaluated and monitored. Implementation of the plan should include the prevention of traffic accidents to protect the lives of local people and the lives of their employees along the transport routes.

4 MANAGEMENT CONTROLS AND MITIGATION MEASURES

Access to the Project area is provided from Bitlis-Van highway (D-300) at the junction of Bakımlı and Kıyıcak neighborhoods. There is a road from Bakımlı and Kıyıcak neighborhoods to the Project area.

A map showing the main road route and the developed alternative road route is given in the *Figure 4-1*:

Figure 4-1.Road Map Showing Access to the Project Area



No new access or on-site road will be constructed within the scope of the project. The main road route given in the ***Hata! Başvuru kaynağı bulunamadı.*** will be used for the panels and work machines to reach the site. Necessary mitigation actions such as not transporting during the rush hours and the ones given in *Section 4* of this TMP, should be taken by the Project in order to minimize and prevent the traffic load. Project activities should not affect the transportation of the nearest neighborhood.

Hata! Başvuru kaynağı bulunamadı. below presents key management controls and mitigation measures related to public health and safety, disturbance, monitoring, coordination, education, preparedness and response. During the transportation of the project components, warning signs should be positioned directly or indirectly related to traffic and transportation safety. In addition, safe driving and traffic safety training should be given to truck drivers and construction equipment operators in order to provide general awareness.

Photographs showing the main road to the project area are given below *Figure 4-2:*

Figure 4-2. Main Route Photographs

Table 4-1.Mitigation Measures

Subject	Applicability / Activity	Control Definition	Responsible Parties	Validation Tools
COMMUNITY HEALTH AND SAFETY	**Supporting existing infrastructure**	• Provision and installation of safe traffic control measures, including warning signs and speed bumps on roads, to alert Project staff of hazardous conditions where necessary. • Placing speed bumpers, hazard warnings and information signs at the entrance of the project site, • Placing convex road safety mirrors in areas with dangerous turns, • Ensuring regular maintenance of vehicles and the use of manufacturer-approved parts to minimize and prevent potential serious accidents caused by equipment failure, • "Attention There is Work" etc. to the work area. placing warning signs, • Compliance with Turkish legislation on speed limits depending on the type of vehicles and roads (see Annex-A), • Provision of consultation meetings for residents to support safe traffic and recording consultations for evaluation.	• OHS Expert • Environmental Engineer • HR	• Direct application • Reporting after the closure of each issue • Internal audit program and records • Consultation and consultation records with local people
COMMUNITY HEALTH AND SAFETY	**Supporting existing infrastructure**	• Application of maximum 30 km/h speed limit for theproject site and state roads speed limits, • Collaborate with local communities and responsible authorities to improve road signage, visibility and general safety, particularly along sections near schools or other places where children are present.	• OHS Expert • Environmental Engineer • HR	• Direct application • Reporting after the closure of each issue • Internal audit program and records • Consultation and consultation records with local people

Subject	Applicability / Activity	Control Definition	Responsible Parties	Validation Tools
COMMUNITY HEALTH AND SAFETY	**Adopting best practices for transport safety**	• All drivers have their driver's licenses, • Emphasizing traffic and transport safety issues among drivers, • Compliance with travel/journey times, • Arrangement of driver cadres to prevent excessive fatigue, • Where possible, avoiding dangerous routes and busy times of the day to reduce the risk of accidents. • Notifying the headmen and the nearest quarries about the traffic measures to be taken to avoid potentially dangerous traffic load and the use of the Project road.	• OHS Expert • Environmental Engineer • HR	• direct application • Reporting after the closure of each issue • Internal audit program and records • Consultation and consultation records with local people
POLLUTION	**Noise and Dust Control**	• Training truck drivers on not using unnecessary horns, • It is absolutely necessary to cover the tops of the trucks, • Preventing materials that may fall or trip for safety.	• OHS Expert • Environmental Engineer • HR	• Internal audit program and records • Observing and approving applications.
MONITORING AND COORDINATION	**Monitoring**	• Training / informing the drivers about how to behave in case of any malfunction, accident and similar, • Recording of each incident / accident to increase the efficiency of this management plan and corrective actions.	• OHS Expert • Environmental Engineer • HR	• Internal audit program and records • Driver training records • Driver performance records for incident and accident information

Subject	Applicability / Activity	Control Definition	Responsible Parties	Validation Tools
PREPARATION AND RESPONSE	**Emergency Response**	• Coordination between emergency responders to ensure that appropriate first aid is provided. • Implementation of the emergency preparedness and response plan prepared within the scope of the project.	• OHS Expert • Environmental Engineer • HR	• Emergency Response Plan • Incident records and reports.
EDUCATION	**Driver Trainings**	• Ensuring that drivers have at least 5 years of heavy vehicle driving license, • Periodic warnings and trainings to ensure that drivers are extra vigilant in such critical places, • Distributing a map showing the navigation route to all drivers and providing periodic driver training, control and warnings to prevent the use of other roads, • Distributing a map showing the determined transportation route to all drivers and providing periodic driver training, control and warnings to prevent the use of other roads, • Compliance with relevant speed limits, • Periodic maintenance of all placed warning signs and accessories and replacement if necessary, • Compliance with traffic rules on state roads.	• OHS Expert • Environmental Engineer	• Driver database, including training records, physical health test results, penalties, incident and accident records. • Training materials and records

Subject	Applicability / Activity	Control Definition	Responsible Parties	Validation Tools
MACHINE / VEHICLE REGISTRATION	**Registration for each machine / vehicle in the field**	• Creating a "Machine / Vehicle Registration File" for each machine / vehicle including heavy vehicles to be used at the construction site and keeping this file ready for non-routine inspections to be made by the OHS Expert of the Project (The file will contain vehicle registration (license), maintenance and insurance reports and operating licenses.)	• OHS Expert	• Machine / vehicle registration file (vehicle registers (license), maintenance and insurance reports and operator licenses)
TRANSPORTATION	• Traffic Safety	• Accompanying heavy trucks with escort vehicles during the transport of most of the components, if any (this will be included in the transport company's contract).	• OHS Expert • Environmental Engineer	• Monitoring during the migration of major components of the project • Contract of the transport company
WARNING SIGNS	• Traffic Safety	• Placement of warning signs such as “Caution Settlement Crossing” or “Attention Child May Come Out” and similar, which will attract the attention of drivers at the entrances of neighborhoods and settlements.	• OHS Expert • Environmental Engineer	• Visual inspection of placements to check if necessary.

4.1 Management Controls

In order to ensure road traffic safety during both construction and operation phases, mitigation measures defined in this plan and other necessary measures should be taken and implemented.

The mitigation measures to be taken regarding traffic management are given below.

- Contractors will communicate with local authorities regarding road crossing activities and ensure that all conditions defined by the authorities are met.
- Local people will be consulted at the intersection of project traffic routes to minimize safety risks and impacts on livelihoods and public transport activities.
- Easy-to-read signs will be used to indicate deviations or traffic flow changes due to project activities.
- Temporary traffic control and appropriate signs will be used to clarify warnings and improve safety.
- Temporary traffic control will be used at intersections and connections where accident risk may be high.
- When very large heavy vehicles are needed, the authorities will be informed and pioneer vehicles will be provided to the vehicles.
- Frequent roads will be inspected regularly to ensure they are not damaged and repair activities will be carried out as necessary.
- Transportation at night will be restricted as much as possible to reduce the risk of accidents.
- All drivers will comply with Project driving rules and be trained accordingly.
- The legal speed limits defined according to the relevant vehicle types will be followed.
- To formally convey the concerns, complaints and grievances of the local people to the investor.
- A Grievance Mechanism will be established to facilitate the communication of the parties and to facilitate solutions acceptable to the parties.
- Frequently used routes will be continuously inspected to prevent dust generation, detect damage and identify repair needs.
- In case the highway is used during the construction and operation phases, the Traffic Law No. 2918 and all laws and regulations related to Highways will be complied with.
- In case of transportation of dangerous goods, the provisions of the "Regulation on the Transport of Dangerous Goods by Road" will be followed.

5 MONITORING

5.1 Overview of Monitoring Requirements

This section describes the monitoring activities to be implemented during the construction and operation phases to assess the Project's compliance with relevant national and international legislation and Project Standards. Based on the monitoring results, necessary corrective and preventive actions will be determined and necessary changes will be reflected in the Plan. The training program will be updated accordingly. If any non-compliance with the Project Standards is detected, these will be investigated, and appropriate corrective action taken.

5.2 Key Monitoring Activities

The table below shows the main monitoring activities identified for the Project.

Table 4-2.Key Monitoring Activities

Driver Competency	Training	• All Project drivers including the drivers of contractors and subcontractors will be trained theoretically and practically on traffic management.	• Periodically • As required if the non-compliances or knowledge deficiency are observed	Project site
Driver Competency	Driving Licenses Operator Licenses	• All Project drivers including contractors' and subcontractors' drivers and construction equipment operators are required to hold a valid Turkish driving licenses and other necessary licenses such as operator licenses and internal permits. Moreover, they are required to attend to trainings of the Project. • Drivers of the commercial vehicles including the contractors and subcontractors are required to hold SRC 2 and SRC 4 commercial driver's licenses. • List of the drivers and operators of heavy machines and their licenses will be kept in the Project Document Control Center (DCC).	Prior to hiring a driver and/or an operator	Project site
Contractor Management	Contractor Performance	The Project will establish an inspection and audit program to assess contractors' performance concerning this Management Plan, including: • Review of Contractors' ability to meet the requirements of this Plan	• Prior to initial appointment of a contractor, and then monthly during construction • Needed frequency depending on the performance of the contractor over time	Contracts' depots

		• Contractors' emergency response procedure (including actions to be undertaken by drivers) • Analysis of incident investigation reports • Audit of driver competency • Vehicle equipment and maintenance records • Drivers' training records.		
Impacts on Communities	Community Health and Safety	The Project will continue to interact with the local communities close to the site access roads to establish the extent of impact caused by Project traffic and transportation.	Periodically	Residential areas along or near to the site access roads
Community Traffic Safety Training	% of community received community traffic safety training	Communities living in the vicinity of the Project site will receive community traffic safety training before the transportation activities started to minimize effects on children used mobile teaching.	As needed (prior to transportation activities)	Community living in the vicinity of the Project

5.3 Key Performance Indicators (KPIs)

A summary of key performance indicators for evaluating the progress and effectiveness of proposed mitigation measures is provided in the table below.

Table 4-3. Key Performance Indicators (KPIs)

KPI	Target
Number of non-compliances against mitigation controls defined in this Plan	• Reducing the number of mismatches (Reducing to zero) • Continuous improvement of incompatibilities
Number of drivers/operators detected to exceed speed limits or drive unsafely	• Reducing the number of drivers / operators exceeding speed limits (Reducing to Zero) • Annual zero overclocking

KPI	Target
Number of related road traffic accidents: • Accidental injuries and deaths • Spillages (such as fuel or transported material)	• Zero traffic accidents per year
Number of traffic related complaints/concerns	• Zero annual complaints/concerns about traffic • Resolving grievances within the time limits specified in the grievance procedure.
Percentage of those receiving community traffic safety training	• 80%

6 TRAINING

Necessary trainings will be provided to all personnel within the scope of the project and effective traffic and transportation training / awareness will be provided. Both Project employees and contractors will be included in the training program. All necessary training will be provided as part of on-the-job training and job-specific training to ensure that all personnel are aware of the identified management system and responsibilities regarding traffic and transport. All employees and contractors will be trained on potential hazards and control measures for traffic and transport safety.

6.1 Introductory Training

All Project personnel and contractors/subcontractors working at the Project site will receive comprehensive training on general recruitment, site-specific introductory training and health, safety and environmental awareness.

6.2 Job-Specific Training and Other Training

All personnel responsible for transportation; will receive job-specific traffic training to raise awareness about road safety, general traffic rules and respect for the environment. In addition, heavy vehicle drivers using public roads will be given annual awareness training on the risks associated with the use of heavy vehicles on these roads and the relevant road safety rules.

All Project employees and Project contractors/subcontractors responsible for all transport and traffic related activities should be provided with on-the-job talks/training outlining the mitigation measures defined in Section 4 of this Traffic Management Plan.

7 AUDIT AND REPORTING

7.1 Audit

Under this TMP, monitoring activities will be carried out to assess the level of implementation of the mitigation measures identified for the Project. Daily inspections will be carried out by the OHS Expert and Environmental Engineer to cover various application issues. Any incidents detected during these audits will be reported to the Project's case management system. Compliance with the plan will be monitored according to the Environmental / OHS and Social Management System.

In accordance with the requirements of the ESHS Management System, all incidents and nonconformities will be reported with the Incident Report and Registration Form (*see Appendix-2 and Appendix-3*).

7.2 External Audit

Compliance with this Traffic Management Plan; In order to improve the performance of the plan, it will be subject to the audit program determined within the scope of the Project and the evaluations to be made periodically by the Project Lenders.

7.3 Record Keeping and Reporting

Records of audits, inspections, incidents and complaints will be reported, recorded and managed in accordance with Project procedures. The Project will comply with the reporting requirements in Turkish legislation regarding this Management Plan. The Project will develop an internal reporting program on this Management Plan.

APPENDICES

Appendix 1 - Minimum and Maximum Speed Limits for Vehicle Types in Highway Traffic Regulations

Appendix 2 – Incident Report

Appendix -3 – Event Recording

Appendix – 1: Minimum and Maximum Speed Limits for Vehicle Types in Highway Traffic Regulations

Vehicle Type (Category Code)	Inside the Settlement	Outside of Residential Area		On the highways
		On Intercity Bidirectional Highways	On Divided Roads	
Automobile (M1), (M1G)	50	90	110	120
Minibus (M2)	50	80	90	100
Bus (M2-M3),	50	80	90	100
Van (N1), N1G)	50	80	85	95
Truck (N2-N3), Tow truck (N2-N3)	50	80	85	90
Motorcycle (L3)	50	80	90	100
Motorcycle (L4, L5, L7)	50	70	80	80
motor bike (L1, L2, L6) non-motorized bicycle	30	45	45	Can't enter
Vehicles carrying dangerous goods and vehicles on the road with a special cargo transport permit or a special permit (unless there is a contrary provision in the documents)	30	50	60	70
rubber wheel tractors	20	30	40	Can't enter
Vehicles towing a faulty vehicle	20	20	30	40
construction machinery	20	20	20	It is not allowed to enter without the permission of the organization responsible for the construction, maintenance or operation of the road.

Appendix – 2: Incident Report

INCİDENT REPORT	
Project name:	**Project number:**
Report Date:	
Category:	□ Environmental □ Lost Time Accident □ Near miss
Event Date:	__/__/___
Event Location:	
Person Reporting the Incident:	
Description of the event:	*Who, what, when, where, how and why? Supporting photos as relevant.*
Reasons:	
□ İnstant Reason	
□ Main/Trigger Reason	
Instant Actions:	
Corrective Actions Taken:	
Applying Person:	
Verification:	
Closing Date of Event:	
Detailed Information:	
Person Providing Information:	OHS Manager of the Project:

Appendix **– 3: Event Recording**

EVENT RECORDING								
Reporting Period:								
Total Number of Events:								
Until today:			**During this Reporting Period:**					
Total Events Till date:								
Number of Open Events:			**Number of Closed Events:**					
Date of registration	**Contractor Registration Numb**	**Locati**	**Event**	**Actions**		**Closing**		**Comm**
				Corrective Actions	**Practitioner**	**About to close/ongoing**	**Final Closing Date**	

PROJE MÜŞAVİRLİK MÜHENDİSLİK
TİCARET LTD. ŞTİ.

Şehit Cevdet Özdemir Mah. Öveçler 4. Cad.,

1351. Sok.,No:1/6-7, Çankaya/ANKARA

Tel: 0.312.479 84 00 (pbx), Faks: 0.312.479 84 99

www.mgsmuhendislik.com

Annex-I: Request Form

	VASKİ **Van Water and Sewerage Administration 32 MW Solar Power Plant-II Project**
	REQUEST FORM

Application No.	
Name Surname* (Anonymous applications are also accepted. If you wish to submit your application anonymously, please tick below how you would like to be contacted)	
Please indicate how you would like to be contacted (mail, phone, e-mail)	
Province/District	
Related VASKİ Name	
Date	
Complaint Category	
1. About the assets/properties/settlements affected by the project	
2. About infrastructure	
3. About the decrease or complete disappearance of income	
4. About environmental issues (ex. Noise, pollution, waste management)	
5. About employment	
6. About traffic, transportation and other risks	
7. Occupational health and Safety	
8. Employee Rights	
9. Other (If confidential, please call Project Management Unit (PMU) directly):	
Description of Complaint: What is the problem? When and where did the problem occur? What is the result of the problem?	
What do you expect to happen for the problem to be resolved?	

Date:	**Signature:**
Note: Although it is not obligatory to give a name and address, it should be noted that there may be some problems in the feedback process regarding the complaint due to lack of information.	

Annex-J: Grievance Database

Date of Grievance	Name of the Complainant	Subject of Grievance	Corrective Action	State of Grievance Closure

Annex-K: Complaint Tracking-Monitoring Form

Complaint Register Number	How Complaint is Received (Grievance Form, Community Meeting, Telephone)	Level of Grievance (Contractor, MoEU Provincial Directorate Level, PIU Level, Alo181-Ministerial Level)	Date of Complaint Received	Date of feedback on Complaint Received	Location of Complaint Received	Name of Person Receiving Grievance	Complainant Information*For anonymous applications this is empty but means of communication(either email or phone) needs to be agreed with complainant so PIU can respond					Project Component Related to Complaint	Grievance Category (renovation related, environmental issues, restriction to access, damage, complaint about a worker, accident etc.)	Grievance Category (*if grievance is related to a confidential/sensitive issue ie. harrassment, bullying, fraud the person receiving the grievance should direct this to national referral systems immediately and record that this has been directed. All details of the complainant of the sensitive case should be kept strictly confidential and logged in a separate spreadsheet locked with a passcode which only the GM focal point can access*)	Complaint Summary	Grievance Status (open, closed or pending)	Action Taken			
							Name/Surname	ID Number	Telephone/ e-mail	Village-District	Gender						Responsible Person/Department	Responsible Person	Action Planned	Due Date of the Addressing the
1																				
2																				
3																				

TÜRKİYE PUBLIC and MUNICIPAL RENEWABLE ENERGY PROJECT

VAN WATER and SEWERAGE ADMINISTRATION 32 MW SOLAR POWER PLANT PROJECT

MINUTES of STAKEHOLDER CONSULTATION MEETING

Revision	:	*REV.00*
Submission	:	*April 2024*

Table of Contents

1. STAKEHOLDER CONSULTATION MEETING

VASKİ 32 MWe Solar Power Plant Project of Van Water and Sewerage Administration will be financed under Türkiye Public and Municipal Renewable Energy Project.

The Environmental and Social Management Plan (ESMP) has been prepared by MGS in accordance with İLBANK's Environmental and Social Management System (ESMS) and WB ESF including applicable Environmental and Social Standards (ESSs), World Bank Group (WBG) General Environment Health and Safety (EHS) Guidelines and Industry Sector Guidelines, and the national legislation in force in Türkiye. In addition to these studies, following the finalization of the ESMP, a Stakeholder Consultation Meeting was held on 1 April 2023 at 13.00 hour.

1.1. Question & Answer Session

In this sub-section, the opinions, requests and questions of the participants and the relevant answers received during the Stakeholder Consultation Meeting have been presented. The details are as follows:

Question 1:

Selim Şahin, Head of Plan Project Investment and Construction Department, VASKİ: How long will the monitoring activities continue, will the monitoring activities cease once operational?

Answer 1:

Hilal Aydın, Environmental Engineer, MGS: Starting from the construction phase of the Project, monitoring reports based on daily observations, if necessary, will be made weekly and monthly and monitoring activities will continue throughout the life of the Project. The issue is addressed in the Environmental Monitoring Table in the ESMP.

Question 2:

Technical Staff VASKI Treatment Plants Department: What measures will be taken for community health and safety in the Project area?

Answer 2:

Hilal Aydın, Environmental Engineer, MGS: The project area will be surrounded by wire fences and the area will be continuously monitored by cameras. An administrative building will be established in the Project area and security personnel will be employed. In addition, signs indicating the Project area will be placed on the access roads and necessary traffic trainings will be provided to drivers on the use of the Project route.

Question 3:

Technical Staff VASKI Treatment Plants Department: Is the region selected as the project area suitable in terms of efficiency?

Answer 3:

Osman Özdamar, Energy Engineer of VASKİ: Project generation data was calculated using EMRA, global sunshine duration and PV SYST program. Van region ranks first in Türkiye in the ranking of the most suitable region for solar energy with its sunshine duration.

Question 4:

Selim Şahin, Head of Plan Project Investment and Construction Department, VASKİ: Is the region selected as the project area suitable in terms of efficiency?

Answer 4:

Hilal Aydın, Environmental Engineer, MGS: Priority is given to stakeholder neighborhoods as the World Bank is moving forward with the objective of creating employment in the areas where the project takes place.

Furkan Aksu, Sociologist, MGS: You are also expected to inform the mukhtars when employment is to be provided.

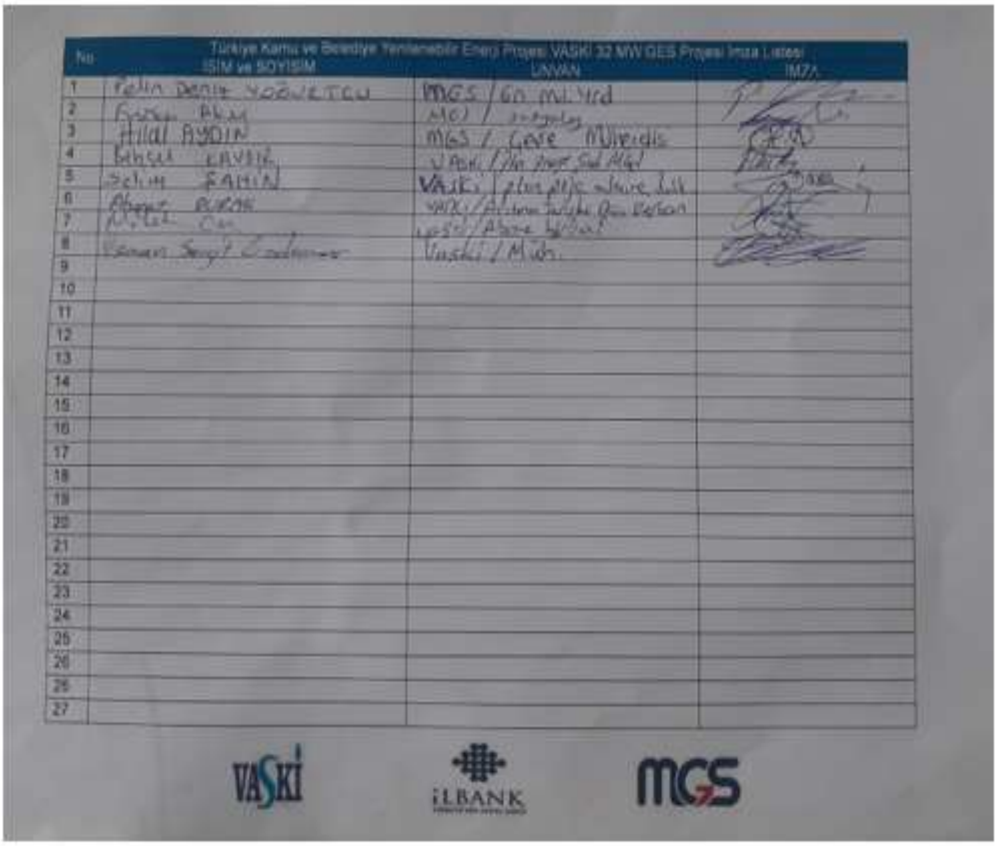
Question 5:

Technical Staff VASKİ Treatment Plants Department: There is an efficiency rate you mentioned, will this rate decrease in the winter season?

Answer 5:

Osman Özdamar, Energy Engineer of VASKİ: Of course, the values will be different between winter and summer, but the ratio in question is an average value. Therefore, snow will not accumulate on the panels anyway.

2. Participants List



Türkiye Kamu ve Belediye Yenilenebilir Enerji Projesi VASKİ 32 MW GES Projesi İmza Listesi

No	İSİM ve SOYİSİM	UNVAN	İMZA
1	Pelin Deniz YOĞURTCU	MGS / Gn. Md. Yrd	
2	[illegible] Akın?	MGS / [illegible]	
3	Hilal AYDIN	MGS / Çevre Mühendis	
4	[illegible] KAVRIK?	VASKİ / [illegible]	
5	Selim ŞAHİN	VASKİ / [illegible]	
6	[illegible] BURAK?	VASKİ / [illegible]	
7	[illegible] Can	VASKİ / Abone [illegible]	
8	[illegible]	Vaski / Müh.	
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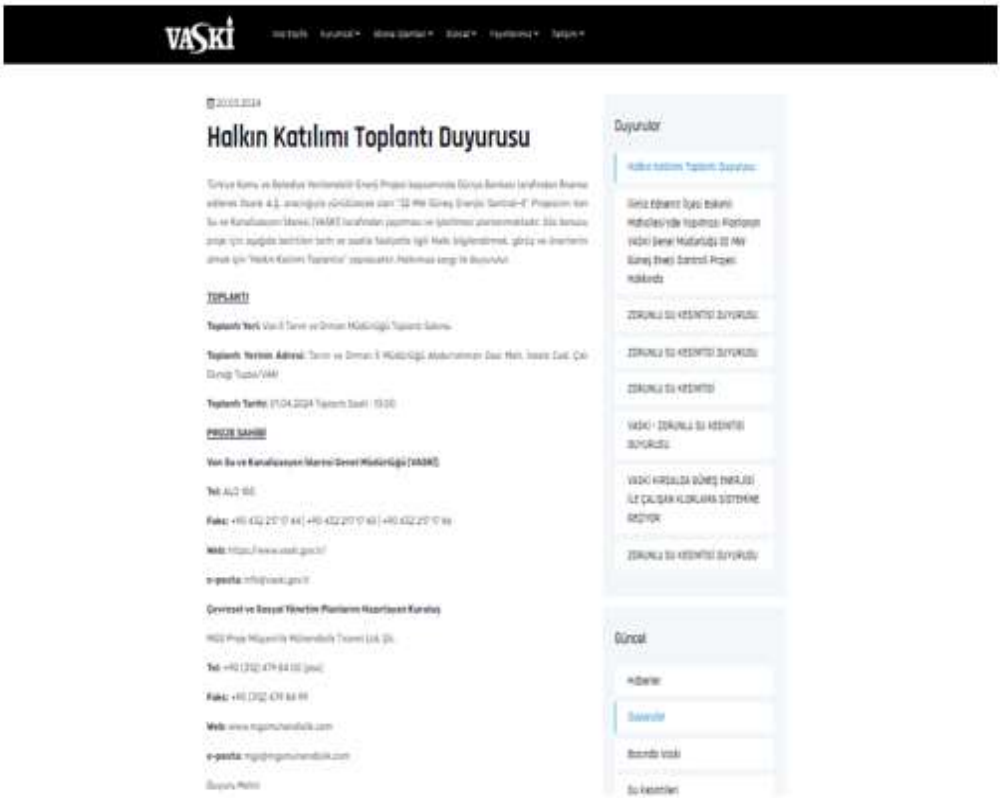
3. Stakeholder Consultation Meeting (SCM) Announcements on Local and National Newspapers and VASKİ Official Website & Announcement Brochure of the Project Distributed at the SCM

Announcement of VASKİ Official Website



Announcement of Local and National Newspapers:

VAN'DA ETKİLİ OLAN YAĞIŞLARLA BARAJLARDAKİ DOLULUK ARTTI

Van'ın Güzelsular Beldesi'nde

BAHARI BİNLERCE FİDAN DAĞITIMI İLE KARŞILADI

GÖNÜLLÜLER AFAD'IN ARAMA KURTARMA EĞİTİMLERİYLE OLASI AFETLERE HAZIRLANIYOR

MAÇIN YAYINLANACAĞI KANAL BELLİ OLDU!

DUYURU
Halkın Katılımı Toplantısı

şehir

13

ERZURUM BÜYÜKŞEHİR BELEDİYE BAŞKANI MEHMET SEKMEN:

Zorlukların üstesinden gelerek hizmet edeceğiz

Proje tanıtım toplantısında konuşan Erzurum Büyükşehir Belediye Başkanı Mehmet Sekmen "Halkın taleplerine kayıtsız kalmadan yeni projelere imza atmaya devam edeceğiz. Yeni dönemde içmesuyu problemini de tarihe karşacak" dedi.

Çocuklara teknoloji ve tasarım atölyesi

Namaz Vakitleri

ALİME TOPUZ
30 yıl sonra bel fıtığından kurtuldu

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Halkın Katılımı Toplantısı

T.C. İZMİR 10. ASLİYE HUKUK MAHKEMESİNDEN KAMULAŞTIRMA İLANI

Zehir taciri yakalandı

Announcement Brochure of Project

Paydaş Katılımı ve Şikâyet Mekanizması

Ayrıca, Proje kapsamında bir Paydaş Katılımı Planı hazırlanarak Etkilenen Topluklara düzenli bilgilendirme/raporlama yapılması sağlanacaktır. Edremit halkının ve diğer Proje paydaşlarının hem inşaat hem de işletme aşamasında Proje ile ilgili endişelerini, görüşlerini, şikayetlerini ve önerilerini almak adına bir Şikâyet Mekanizması kurulacaktır. Bu mekanizma aracılığı ile iletilen görüş/istek/öneri/şikayetler hızlı ve hassas bir şekilde ele alınacaktır. Şikâyet Mekanizmasının uygulanmasından sorumlu kurum VASKİ olacaktır. Broşürde verilen iletişim kanalları da ayrıca kullanılabilecektir:

Cumhurbaşkanlığı İletişim Merkezi

www.cimer.gov.tr
Telefon: +90 312 525 55 55

Yabancılar İletişim Merkezi

Telefon Numarası: +90 312 5157 11 22

Resmi Yazı/Dilekçe için Adres: Türkiye Cumhuriyeti Göç İdaresi Genel Müdürlüğü, Çamlıca Mahallesi 122. Sokak No: 4 Yenimahalle/ANKARA

KAMU ve BELEDİYE YENİLENEBİLİR ENERJİ (KABYEP) PROJESİ NEDİR?

Türkiye Kamu ve Belediye Yenilenebilir Enerji Projesi (KABYEP), merkezi hükümet binaları ve belediyelere odaklanarak kamu sektöründe Yenilenebilir Enerji (YE) kullanımının yaygınlaştırılması için Türkiye Hükümetini desteklemeyi amaçlamaktadır. Proje, kamu tesislerinde dağıtılmış YE pazarının genişletilmesine katkıda bulunacak, ülkenin iklim azaltım taahhüdünü yerine getirmek ve enerji güvenliğini artırmak için sürdürülebilir enerji çözümlerini kullanma konusunda kamu sektöründe liderlik gösterilmesine yardımcı olacaktır.

VAN İLİ

EDREMİT İLÇESİ

Paydaş Katılım Toplantıları

Van Su ve Kanalizasyon İdaresi

Tel: +90(432) 217 17 43

https://vaski.gov.tr/

Mail: info@vaski.gov.tr

İLLER BANKASI A.Ş.

Şikâyet/istek/öneri telefon hattı: 0(312) 508 79 79

Web sitesi: https://www.ilbank.gov.tr/form/bilgiedinmeuluslararasi

E-mail: bilgiuidb@ilbank.gov.tr

Açık Adres: İLBANK Genel Müdürlüğü Uluslararası İlişkiler Dairesi Başkanlığı, Emniyet Mahallesi Hipodrom Caddesi No:9/21 Yenimahalle/ANKARA

TÜRKİYE KAMU ve BELEDİYE YENİLENEBİLİR ENERJİ PROJESİ

VAN SU ve KANALİZASYON İDARESİ 32 MW GÜNEŞ ENERJİ SANTRALİ PROJESİ

BİLGİLENDİRME BROŞÜRÜ

Toplantı Yeri

Van İl Tarım ve Orman Müdürlüğü Toplantı Salonu

Toplantı Saati

13.00

NİSAN 2024

Projenin Tanımı

Van Su ve Kanalizasyon İdaresi Genel Müdürlüğü tarafından Van ili, Edremit ilçesi, Bakımlı mahallesi, Dağ mevkii, 890 numaralı parselde "VASKİ 32 MWe Güneş Enerjisi Santrali Projesi" (Proje) gerçekleştirilmesi planlanmaktadır. Projenin gerçekleşeceği alanın parsel numarası 890'dır. Bu parsel ikiye ayrılmıştır. İlk aşamada faaliyetler 926 parsel numarasında başlayacaktır. Bu Proje ile 545 Wp monokristal güneş paneli tipi Fotovoltaik Güneş Enerjisi Panellerinden oluşan Güneş Enerji Santrali kurulumu gerçekleştirilecektir. VASKİ 32 MWe GES, VEDAŞ tarafından verilen izinler doğrultusunda 2162 metre uzaklıkta bulunan ENGİL TM'ye bağlanacaktır.

Proje Finansmanı

Kamu ve Belediye Yenilenebilir Enerji Projesi (KABYEP), kamuda yenilenebilir enerjinin kullanılmasını desteklemek amacıyla Dünya Bankası (DB) tarafından finanse edilecektir. İller Bankası A.Ş. (İLBANK) Finansal Aracı (FA) olarak görev yapacaktır.

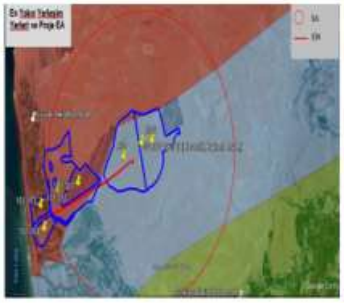
KABYEP kapsamında tanımlanan kamu kuruluşlarının önerilen alt proje yatırımları, danışmanlık hizmetleri tarafından üstlenilen Çevresel ve Sosyal Değerlendirme çalışmalarına tabi tutulur. Gerekli çalışmalar kapsamında Van İli Edremit İlçesi VASKİ 32 MWe GES Projesi için Çevresel ve Sosyal Yönetim Planı (ÇSYP) hazırlanmıştır.

VASKİ önerilen projenin sahibi olacaktır. VASKİ, tüm sistemin işletilmesi, onarımı ve bakımından sorumlu olacaktır.

Projenin Amacı ve Faydaları

Bu proje ile VASKİ' nin toplam elektrik tüketiminin % 77'si karşılanacaktır. Yıllık 70.732 MWh üretimle ekonomiye katkıda bulunmanın yanı sıra, güneş enerjisi gibi yenilenebilir temiz bir enerji kaynağı sayesinde 43.839 ton karbon emisyonunu engelleyecektir. Üretilen enerji ölçeklendirilirse, yaklaşık olarak 29.000 hane için elektrik tüketimine eşdeğerdir.

İnşaat faaliyetlerinin ne zaman başlayacağı ne kadar süreceği ve inşaat ve işletme aşamalarında kaç kişinin istihdam edileceği Projenin ilerleyen süreçlerinde netlik kazanacaktır.



Çevresel ve Sosyal Etkiler

Projenin inşaat ve işletme aşamalarında çevresel etkilerin olması beklenmektedir. Projenin muhtemel etkileri genellikle yerel ölçekte, düşük ile orta büyüklükte fakat kısa vadeli olacaktır. Projenin inşaat aşamasındaki en önemli etkiler ÇSYP' de detaylı olarak verilmiştir.

Beklenen etkilerin yönetimi için bir Çevresel ve Sosyal Yönetim Planı (ÇSYP) geliştirilmiştir. Bu planda uygulanacak izleme ve denetim faaliyetleri de tanımlanmıştır. Buna göre, projenin inşaat ve işletme aşamasında; arazi kullanımı, toprak ve jeoloji, hava kalitesi, gürültü, su kaynakları ve atıksu yönetimi, atık yönetimi, biyolojik çevre ve tabiat varlıkları, kültürel miras, iklim değişikliği, trafik yönetimi, çalışma, istihdam ve İSG uygulamaları, toplum sağlığı ve güvenliği, paydaş katılım faaliyetleri konuları ÇSYP'de belirlenen şartlara uygun olarak yönetilecektir.

Proje kapsamında hazırlanan ÇSYP ve PKP VASKİ resmi internet sitesinde yayınlanmıştır (https://www.vaski.gov.tr/tr/duyurular). Bu ÇSYP' nin uygulamasından sorumlu ana kurum, projenin inşaatından ve işletme aşamalarından da sorumlu olan VASKİ'dir.

Çevresel ve Sosyal Etkileri Azaltma ve İzleme Planı

Proje kapsamında inşaat öncesi, inşaat aşaması ve işletme aşamaları için biyoçeşitlilik, kültürel miras, trafik, iş gücü ve akını, toplum sağlığı ve güvenliği, iş sağlığı ve güvenliği, paydaş katılım faaliyetleri, arazi kullanımı, doğal afetler, su kaynakları, atık ve atıksu, hava kalitesi, gürültü konularında etki azaltma önlemleri; kültürel mirasın korunması, trafik, çalışma koşulları, İSG tedbirleri ve acil müdahale yöntemleri, paydaşlarla iletişim, toprak kirliliği, doğal afetlere maruziyet, su kaynakları üzerindeki etkiler, atıksu, emisyon oluşumları, atık yönetimi, habitat kaybı, flora ve fauna, savunmasız gruplar, yüklenici yönetimi gibi konularda da izleme önlemleri belirlenmiş olup söz konusu önlemler ve izleme planı Proje için hazırlanmış ÇSYP'de detayları ile açıklanmıştır.

4. SCM Presentation

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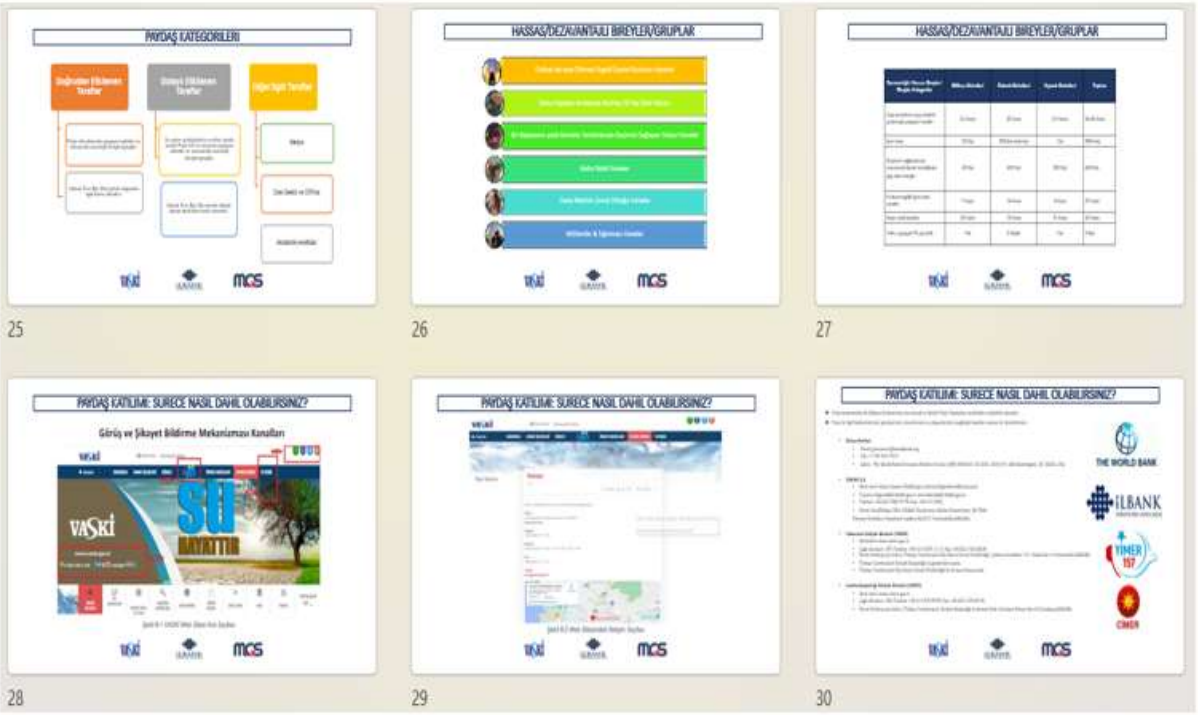
PAYDAŞ KATEGORİLERİ
HASSAS/DEZAVANTAJLI BİREYLER/GRUPLAR
HASSAS/DEZAVANTAJLI BİREYLER/GRUPLAR
PAYDAŞ KATILIMI: SURECE NASIL DAHIL OLABILIRSINIZ?
Görüş ve Şikayet Bildirme Mekanizması Kanalları
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TÜRKİYE KAMU ve BELEDİYE YENİLENEBİLİR ENERJİ PROJESİ
VAN SU ve KANALİZASYON İDARESİ 32 MW GÜNEŞ ENERJİ SANTRALİ PROJESİ
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5. Photographs From SCM

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TİCARET LTD. ŞTİ.

Şehit Cevdet Özdemir Mah. Öveçler 4. Cad.,

1351. Sok.,No:1/6-7, Çankaya/ANKARA

Tel: 0.312.479 84 00 (pbx), Faks: 0.312.479 84 99

www.mgsmuhendislik.com