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İşin Adı
The Name of
the Job

Mersin-Adana-Osmaniye-Gaziantep Yüksek Standartlı Demiryolu Hattı
İnşaatı ile Elektromekanik Sistemlerinin Temini

Construction of Mersin-Adana-Osmaniye-Gaziantep Hight Standard Railway
Line With Supply Of Electromechanical Systems

Report Name
Report Name

Landscaping Management Plan

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1. PURPOSE

The Mersin-Adana-Osmaniye-Gaziantep High Standard Railway Project provides the determination of the methods and principles in the work done on the railway.

2. SCOPE

It includes all persons (employees, interns, etc.) operating in the MAOG Project, all consultants, consultants, intermediary persons and companies operating in the MAOG Project, and subcontractor employees.

3. RESPONSIBILITIES

REC Project Manager : responsible for overseeing the construction of the Project, including planning and delivery. They will be suitably competent and have a strong understanding of construction best practice. The Project Manager is accountable for overall HSE performance and making the human and financial resources available to ensure compliance with HSE requirements of the Contract. The Project Manager will be responsible for coordinating the internal management response of the Contractor to a major emergency. The Project Manager will also be responsible for appointing First Aid competent person(s) on site, as well as a team responsible for site security.

Construction Manager : responsible for implementation of the CESMP measures through method statements and site working practices.

Project HSE Manager : responsible for the implementation of health and safety practices during construction. Project HSE Manager will be suitably competent and have a strong understanding of health and safety best practice including the Project EHSS Requirements.

Headquarter E&S Manager:

Responsible for managing infrastructure and superstructure projects regarding environmental and social governance issues and member of the Executive E&S Committee on behalf of the REC.

PIU (Project Implementation Unit)

PIU Department Manager (Superstructure / Civil Engineer) will be responsible for overseeing the implementation of all health, safety and social measures, as specified within the disclosure package of the Project, and regular reporting to AYGM PIU.



PIU Physics Engineer who is responsible for supervising health and safety for the Project.

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PIU Environmental Engineer (Environmental Issues Coordination Staff) will be responsible for overseeing the implementation of all environmental and biodiversity measures, as specified within the disclosure package of the Project, and regular reporting to AYGM PIU.

PIU Department Manager (Environmental and Feasibility / Environmental Engineer) will be responsible for supervising the implementation of all environmental and biodiversity measures, as specified within the disclosure package of the Project, and regular reporting to AYGM PIU.

Executive Environmental and Social Management Committee

Executive E&S Committee Project Manager (Department Head / Branch Manager /Head of Department) will be ultimately responsible for overseeing the activities undertaken by the AYGM/TCDD specialists (listed below), overseeing the implementation of mitigation measures and management procedures specified within the disclosure package of the Project, and overseeing the preparation and implementation of a CESMP, which will be based on this ESMP.

Executive E&S Committee Environmental, Health and Safety, and Social (EHSS) Manager (Specialist / Engineer) will be responsible for overseeing all matters that relate to environment, health, safety and social aspects of the Project. Also, s/he will be appointed to be responsible for supporting the implementation of the SEP, by conducting regular consultation with affected communities on any concern regarding the Project. CLOs will also have responsibility for disseminating the Project disclosure package as described in the SEP. They will also conduct regular inspections of records relating to grievances received and their resolution. S/He will report regularly to AYGM PIU.

Further technical staff may be required during the course of the Project, who will be assigned internally by the AYGM, either by means of permanent or temporary basis



until the completion of relevant tasks under the Project whilst they undertake their current responsibilities

4. Landscaping Rules for Railroads

Due to the maintenance and fire risks along the route, landscaping application can not made with living materials. Shotcrete, stone wall or slope stone coatings are made in the cuts according to the side slopes in the detailed design. Landscape works are prepared structurally and visually only in the station buildings. Moreover the Ministry of Agriculture and Forestry will decide on the number and location of the trees in the reforestation program.

Soil management during construction

The common practice is to separate the topsoil which can be used in landscaping or agriculture, from subsoil. It is planned to consider the areas and type of topsoil to be stripped, haul routes, the methods to be used and management of each soil stockpile.

When stripping, stockpiling or placing soil, it will be done in the driest condition possible and use tracked equipment where possible to reduce compaction. Stockpiles of different soil materials will be clearly defined.

Landscape, habitat or garden creation

The entire soil profile must be in a condition to promote sufficient aeration, drainage and root growth. Safeguarding and utilising on-site soil resources where possible is essential. The railway station and its facilities constitute a station building with concourses for railway users, tracks, platforms, and even space for commercial hotels, shopping areas, etc., that are not basic functions of the railway station. The landscape of a railway station can be defined as the total balance of the station interior and exterior, the building's architectural style, the engineering structure, the facilities for movement of railway passengers, etc., that are all considered in the planning, layout, detailing and design of the building. An aesthetic station should be easily identifiable, friendly to people and easy to use. At the same time, it should provide a nice and rich



environment. The basic aesthetic factors in the design of a railway station are space, lighting, scale, and detail.

Regarding damage risk to freshwater ecosystem, these mitigation measures should be taken by REC and PIU:

- Temporary culverts proposed for river and stream crossings as mitigation measure to protect sensitive aquatic habitats will be designed to allow fish crossing both high and low flows (i.e. bottomless culverts).
- Construction work (bridge structures, drainage, temporary crossings and temporary works for structures) on rivers/streams and its tributaries between April and June will be avoided.
- The natural structure of the riparian vegetation which forms the spawning and sheltering area for many aquatic organisms, will be preserved where possible.
- Vegetation clearance works will be planned and executed to avoid damage to the riparian vegetation.
- To avoid any increase of the turbidity levels, sediment traps will be used, excavated materials will not be deposited or stored in or near freshwater features.
- The bottom structure of the river crossing zone will be restored to its natural state by laying the same material shortly after the work is completed.
- Measures to avoid spills will be taken as mentioned in Sub-section Spillage/Leakage to Surface Water.

Regarding change of landscape due to changes in land use, visibility of new structures from settlements and visibility of new structures from recreational areas, these mitigation measures should be taken by REC and PIU:

- The LMP will cover actions to suitably manage and maintain the growth and health of planting in year 1 (establishment), the first 5 years of growth (strengthening), and post 5-year longer-term typical management and maintenance requirements.
- During the construction, restricted hours of working will be implemented within built-up areas, where the works are likely to impact on residential properties, and



the use of machinery during the hours when residents are most likely to be at home will be avoided.

- Screening vegetation will be reinstated, subject to land take, and availability of suitable land area. In some instances where the Project is located within built-up areas, the availability of land for mitigation planting will be restricted. No planting is proposed directly within the rail corridor, itself due to electrical overhead lines, structures, and clearances. Mitigation planting should be as close as possible to areas of loss or for maximum screening benefit, as health and safety requirements allow.
- Stockpiled storage mounds will have a maximum height of 2m. Where topsoil is to be stored for a prolonged period, the mounds will be temporarily seeded with an appropriate grass seed mix to reduce the visual prominence of the temporary soil mounds further within view. Construction sites will be kept tidy, and workers will have necessary knowledge/training about the issue.
- Construction footprint will be as minimal as practicable.

Regarding damage or loss risk of terrestrial habitats, these mitigation measures will be taken:

- Delineation of areas to be cleared before the beginning of the construction activities in order to limit as much as possible the surface of vegetation to be cleared.
- Project construction sites and access roads will be separated from sensitive areas with appropriate fencing and signage.
- Appropriate fencing such as orange safety barrier fencing will be installed to protect sensitive habitats.
- In sensitive habitat areas, pedestrian, equipment and vehicle access will be limited to the designated access to construction sites. Parking and driving off the designated access roads will not be allowed.
- Waste generated from construction work and activities will be stored at designated areas and then disposed. Solid waste will not be allowed to be left at natural habitats.



- Licensed/approved facilities for solid and liquid waste disposal will be used and a duty of care and chain of custody for all waste leaving the site will be followed.

Regarding introduction of Alien invasive species, these mitigation measures will be taken by REC and PIU:

- Intrusion of any invasive flora species into the project area and its surroundings will be prevented. For this purpose, especially vehicles used for vegetation clearance and/or plant transfer will be washed/cleaned prior to use.
- Project employees 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.
- Planting of alien species will be prohibited within the Project Area or any areas associated with project, including landscaping of revegetated areas.
- Prompt revegetation (i.e. sowing of native herbaceous species and/or planting native shrubs/trees) on bare soil with natural or semi-natural vegetation will reduce the spread of alien species.
- Revegetation (i.e., the sowing of native herbaceous species on top-soils and/or the planting of native shrubs/trees) will be undertaken as soon as possible after clearance and construction.

5. MONITORING, ASSURANCE AND VERIFICATION

Key success indicators (KPIs) of this procedure will be monitored, verified and evaluated by the relevant parties in accordance with their responsibilities set forth in the E&S Governance document, within the scope of the MAOG-RECU-GB-GNL-IS-PRG-0007-0 HSE Monitoring, Assurance and Verification Procedure.