

KOSIT A.S

SUPPLEMENTARY ENVIRONMENTAL & SOCIAL REPORT

K3 Waste-to-Energy Project



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1 INTRODUCTION

This Supplementary Environmental and Social (E&S) Report has been prepared for the European Bank for Reconstruction and Development (EBRD) of KOSIT a.s. ("KOSIT" or "the Company"), one of Slovakia's leading waste management companies. Headquartered in Košice, the Company operates a comprehensive portfolio of waste services including two Waste-to-Energy (WtE) lines (K1 and K2), nine landfills, three transfer stations, a wastewater treatment plant, a biogas facility, and a fleet of specialised waste collection vehicles. KOSIT is planning to develop a third (K3) WtE facility on the existing K1 and K2 site, designed to address Slovakia's pressing need for modern, sustainable waste treatment solutions. The K3 Project is designed to significantly expand the region's capacity for thermal recovery using WtE technology while reducing reliance on landfill disposal.

K3 will supply electricity to the grid and heat to Košice's district heating system, replacing fossil fuel use from other power plants and enhancing energy security. The Project will also include the construction of a substation, a 2.9km 110 kV overhead transmission line (OHTL), and a 7km hot water pipeline (HWP) leading to the primary district heating plant in central Košice.

The Supplementary Environmental and Social Report focuses on the additional requirements of the EBRD Environmental and Social Policy (ESP) 2024 beyond the requirement of the European Union (EU) Environmental Impact Assessment (EIA) Directive and associated pre-disclosed relevant documentation. This document is intended to fill the gaps between what has been presented in the publicly available EIAs for the Project components (K3, OHTL, substation and HWP), and what is required under the EBRD ESP.

1.1 EIA GAPS

The European Union (EU) EIA Directive 2011/92/EU (as amended by Directive 2014/52/EU) requires that Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their environmental effects.

The Project is located in Slovakia which is an EU Member State and therefore the EU EIA Directive has been transposed into national legislation. EIAs in Slovakia are implemented in accordance with Act No. 24/2006 Coll. on Environmental Impact Assessment. This act governs the process of expert assessment of the expected impacts of strategic documents, such as zoning plans, as well as the assessment of the impacts of buildings, projects, and other activities on the environment prior to their approval or permission.

The K3 Project, which entails modifications to the existing activity of energy recovery from waste, is categorised under "Disposal or recovery of other waste in incineration and co-incineration plants." As a result, this Project required a mandatory comprehensive assessment. The EIA report was published in December 2022, and in April 2023, the final approval decision for the EIA was provided. Separately to this, the OHTL EIA was published in January 2023 and the HWP environmental screening in June 2024, with both being subsequently approved.

All EIAs and screenings published were undertaken in line with Slovakian and EU regulations. However, in order to meet EBRD's ESP and associated Performance Requirements, additional

analysis of E&S impacts are required. The following table provides an outline of the gaps identified between the assessment documents and the EBRD ESP, as well as the required gap filling exercise that is presented in this document.

Table 1-1 – Gap analysis and gap filling requirements

Topic	Gap Identified (National EIA vs EBRD ESP)	Gap Filling Requirements
Social Impact	The K3 and OHTL EIA concentrate chiefly on environmental factors, including air emissions, noise pollution, and water quality. While the EIA reports acknowledge aspects of "health and wellbeing" and provides an adequate description of the population baseline, it does not include a thorough analysis of social impacts. A stand-alone Health Impact Assessment (HIA) (Annex 4) for K3 has been prepared to support the EIA which assesses potential health impacts on the affected population.	Conduct a Social Impact Assessment for the whole Project (including K3, OHTL, substation and HWP) to assess potential impacts related to social-economic status, health, safety, livelihoods, and vulnerable populations.
Landscape and Visual Assessment	<p>The K3 site will be located on the existing KOSIT site, next to K1 and K2. The K3 EIA states that the change of the proposed activity will affect only the existing operational area of the proponent "by the construction of buildings of an industrial and warehouse nature".</p> <p>The OHTL EIA states that the route is over flat terrain and the dominant features of the surrounding landscape is the church of Šebastovce, "linear greenery", and the panorama of the city of Košice to the north. The EIA then states that the OHTL will "not represent significant elements that would affect the landscape character. Overall, we consider the impact of the proposed activity on the landscape and on the landscape structure to be negative and negligible."</p> <p>No appropriate landscape and visual survey or impact assessment has been undertaken for the Project as a whole. The K3 EIA does not refer to or analyse the new 68m stack (albeit less high than the existing K1/K2 stack), and the OHTL EIA does not appropriately consider the new substation being constructed on agricultural land. All proposed Project infrastructure have not been modelled and viewed from key viewpoints.</p>	Given the height of the new stack, the OHTL, the construction of a substation on agricultural land, and the flat terrain surrounding these sites, a high-level Landscape and Visual Impact Assessment (LVIA) is required.
Air Emissions Modelling	The EIA states the 65m chimney [later lengthened to 68m] is sufficient to ensure sufficient dispersion of pollutants, verified by dispersion modelling using the MODIM model. However, this does not explicitly assess impacts at ecological receptors.	Scope for a revised dispersion modelling study based on the final design and equipment specific parameters relating to emissions that also assesses the impact of air emissions on ecological receptors, including in relation to dry deposition, acid gas deposition and

Topic	Gap Identified (National EIA vs EBRD ESP)	Gap Filling Requirements
		against ecological air quality standards.
GHG Assessment	<p>A quantitative estimates of CO₂ emissions has been conducted the K3 EIA but it lacks full GHG inventory (Scope 1 and 2) and climate adaptation considerations.</p> <p>The OHTL EIA does not assess or quantify greenhouse gas (GHG) emissions. There is no mention of carbon footprint, operational emissions (e.g. maintenance vehicles), or emissions from material production and construction.</p>	<p>Expand the existing GHG Assessment into a full Scope 1, Scope 2 and Scope 3 GHG assessment for K3.</p> <p>For the OHTL, provide estimation of GHG emissions (Scope 1, Scope 2 and Scope 3) during construction and operation phases and evaluate opportunities to reduce emissions, as part of the main K3 Project GHG Assessment.</p>
Biodiversity Impact	<p>The K3 EIA listed nearby protected species and habitats, including Natura 2000 sites, although omitted the closest protected habitat, and was incomplete regarding some sensitive species (such as bats and nesting birds). The OHTL EIA confirmed the OHTL is not within any protected areas. The mitigation hierarchy in relation to biodiversity was also not applied. There is no quantification of biodiversity loss, and no offset or compensation measures are proposed to achieve "no net loss" or "net gain."</p> <p>As the EIA was not specifically focussed on lenders requirements, the original EIA did not include any Critical Habitat or Priority Biodiversity Features (PBF) identification or screening exercise for K3 or any other project components/associated facilities.</p> <p>Ecosystem services impacts are briefly assessed for K3. It focuses only the presence/absence of ecosystem services, and does not identify functional values such as regulating, provisioning, or cultural services. There is no stakeholder engagement or community input documented regarding ecosystem service dependencies or values. Ecosystem services impacts are not identified or assessed for the OHTL. Land is discussed primarily in physical and technical terms (e.g. soil cover, vegetation), not through its functional or social value.</p> <p>The K3 and OHTL EIA confirms that the Project does not involve the use of forest land or forestry resources. The affected land is primarily industrial and agricultural, and no land take from forested areas is anticipated.</p>	<p>Provide a Critical Habitat Screening to formally consider whether any critical habitat is potentially present or thresholds are triggered.</p> <p>Additional consideration of the presence of species protected under EU legislation, and appropriate measures to protect these during construction activities.</p> <p>Areas containing remnant natural habitat should be more thoroughly evaluated. Consideration should be given to the Regional Systems of Ecological Stability ('RÚSES') features identified within the EIA. Any such identified areas or features must subsequently be assessed for potential impacts and compliance with the requirements of PR6.</p>



The gaps identified in the table above have been addressed within this document. The E&S mitigation measures identified in this document will be implemented alongside the mitigation measures identified in the original EIA and screening documents.

As well as this document, KOSIT is also implementing an Environmental and Social Action Plan (ESAP), in order to align further Company processes with the EBRD Performance Requirements.

1.2 PROPOSED PROJECT

1.2.1 KOSIT AS

KOSIT a.s. (“KOSIT” or “the Company”), established in 2001, is one of Slovakia’s leading waste management companies. Headquartered in Košice, the Company operates a comprehensive portfolio of waste services including two Waste-to-Energy (WtE) lines (K1 and K2), nine landfills, three transfer stations, a wastewater treatment plant, a biogas facility, and a fleet of specialised waste collection vehicles. The Company’s revenue streams are diversified across waste collection, disposal, energy recovery, and municipal services. The company employs 585 staff members and serves 257 municipal customers as well as over 2,000 businesses within Slovakia. KOSIT is majority-owned (95%) by private equity fund Wood & Co., with the remaining 5% held by the Municipality of Košice.

WOOD & Company is a major financial and investment group with a leading position in the Central European market. WOOD provides services in corporate finance and capital markets, securities trading and asset management. Waste management activities, property funds and the online investment platform Portu are an important part of the Group.

1.2.2 EXISTING WASTE-TO-ENERGY SITE

The existing WtE facility in Košice, operated by KOSIT, comprises two incineration lines—K1 and K2—located within the company’s main operational complex. These lines form the backbone of KOSIT’s thermal waste treatment capacity and are among only two such municipal solid waste incinerators currently operating in Slovakia.

Commissioned in 1991, the K1 and K2 line is equipped with a grate boiler system and has a maximum thermal output of 20.9 MWt. It primarily supplies heat to the district heating (DH) network, serving approximately 4,000 residential units in Košice. The line has undergone several upgrades since its inception, including post-fire renovations in 2004–2005 and integration into the DH grid in 2017. Reconstruction of the K1 flue gas treatment (FGT) system was also undertaken in 2017–2018, as well as the installation of a back pressure turbine and new heat exchangers in 2022–2023.

The K2 line was reconstructed between 2011 and 2014, with operations commencing in early 2014. It features a modernised boiler and flue gas treatment (FGT) system and is designed to generate electricity for both internal consumption and export to the public grid. With a thermal output of 24 MWt, K2 can meet the electricity needs of approximately 20,000 households. The electrical output for K1 is 6,508 MWh and for K2 it is 47,434 MWh. The K1 figure is much lower as K1 focuses on heat as an output.

Together, K1 and K2 have a combined processing capacity of up to 150,000 tonnes of municipal solid waste annually. The facility operates under an integrated environmental permit and is subject to regular inspections by the Slovak Environmental Inspectorate. The site includes a waste bunker,



ash handling systems, and emissions monitoring infrastructure compliant with European Union (EU) Industrial Emissions Directive (IED) standards.

1.3 OTHER KOSIT OPERATIONS

Beyond its core WtE infrastructure, KOSIT operates a comprehensive waste management ecosystem across eastern Slovakia. These operations are provided below:

Landfills and Waste Processing Sites: KOSIT manages multiple landfill sites and waste processing centres, including sorting lines for plastics, paper, and glass. Mixed municipal waste from Košice and surrounding areas is transported to the KOSIT complex, where it is prepared for energy recovery or material recycling. The company also oversees hazardous waste collection campaigns, such as seasonal pickups from households, ensuring safe disposal of substances that pose risks to health and the environment.

Transfer Stations and Collection Network: KOSIT operates several transfer stations that serve as logistical hubs for waste redistribution. These facilities support efficient routing and consolidation of waste streams, reducing transport emissions and improving operational efficiency. KOSIT's vehicle fleet is optimised for minimal environmental impact through route planning and emissions control.

Biogas and Composting Facilities: KOSIT has expanded its footprint into biological waste treatment through its acquisition of BEST-EKO in Poland, which specialises in composting and wastewater treatment. While this facility is outside Slovakia, it reflects KOSIT's strategic direction toward circular economy solutions and regional integration.

Wastewater Treatment and Environmental Remediation: KOSIT's environmental remediation capabilities were recently demonstrated in the removal of PCB-contaminated waste from Strážske—one of Slovakia's most significant environmental burdens. This project was led by DETOX s.r.o., now a member of the KOSIT Group. The company also operates a wastewater treatment plant that handles leachate and industrial effluents, ensuring compliance with national discharge standards.

Fleet and Logistics: KOSIT's vehicle fleet is a critical enabler of its operational efficiency. The fleet includes rear and side loaders, roll-off trucks, and street sweepers, all GPS-tracked and routed to minimise environmental impact. The company's logistics are centrally coordinated to optimise fuel use and reduce emissions, with ongoing efforts to transition to low-emission vehicles.

1.4 PROPOSED K3 PROJECT

The proposed K3 WtE facility is an expansion of existing infrastructure in Košice, designed to address Slovakia's pressing need for modern, sustainable waste treatment solutions. The project is located adjacent to the existing K1 and K2 incineration lines in Košice, the K3 project is designed to significantly expand the region's capacity for thermal waste recovery while reducing reliance on landfilling.

K3 is an incineration plant with an annual processing capacity of up to 100,000 tonnes of municipal solid waste (MSW). The facility will generate approximately 50,000 MWh of electricity and 53,000 MWh of heat annually, contributing to both the national grid and the Košice district heating network. The facility will be constructed within KOSIT's existing operational complex in Košice, leveraging existing infrastructure such as access roads, utility connections, and waste handling systems. This co-location with K1 and K2 allows for operational synergies, including shared logistics, maintenance,

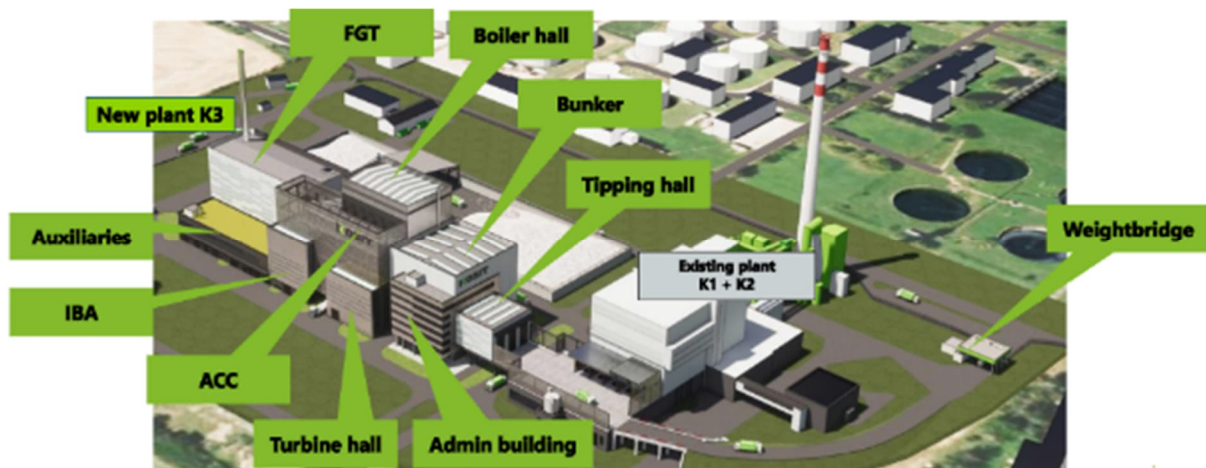
and emissions monitoring systems. It also minimises the need for new land acquisition and reduces the project's environmental footprint.

Diagrams presenting the basic layout of the new K3 facility are presented in **Figure 1-1** and **Figure 1-2** below:

Figure 1-1 - New K3 Facility Layout



Figure 1-2 - Components of the New K3 Facility



Note: IBA = incinerator bottom ash, ACC = air-cooled condenser, FGT = flue gas treatment.

The K3 Waste-to-Energy project is being delivered under an EPC (Engineering, Procurement, and Construction) model, with the international consultancy Ramboll selected to lead the technical design and tender documentation process. The project timeline is structured across four key phases:

- **Q2 2023 – Q1 2024:** Completion of the EIA process and preparation of zoning documentation. The final EIA decision was confirmed in April 2023, and zoning permit documentation was submitted in May 2024 and issued.
- **Q1 2024 – Q4 2025:** Finalisation of permitting and EPC tendering.
- **Q4 2025 – Q4 2025:** EPC contractor selection and financial close. This phase includes contract negotiations and securing of financing.
- **Q3 2026 – Q4 2029:** Construction and commissioning of the K3 line. The facility is expected to be operational by the end of 2029, subject to permitting and procurement milestones

1.5 RATIONALE FOR K3

The K3 Project facility in Košice is a response to Slovakia's over-reliance on landfilling and its need to meet EU climate and waste targets. In 2022, Slovakia landfilled around 40% of its municipal waste—double the EU average—while energy recovery accounted for only 8%. The Project directly addresses this imbalance by diverting 100,000 tonnes of non-recyclable waste annually from landfill to energy recovery, avoiding over 72,000 tonnes of carbon dioxide (CO₂) equivalent emissions each year.

The project supports the EU Green Deal and Circular Economy Action Plan by treating residual waste that cannot be recycled, recovering energy, and extracting metals from bottom ash. It aligns with the Slovak Waste Management Plan (2021–2025), which prioritises new energy recovery infrastructure to meet the 2035 landfill cap of 10%.

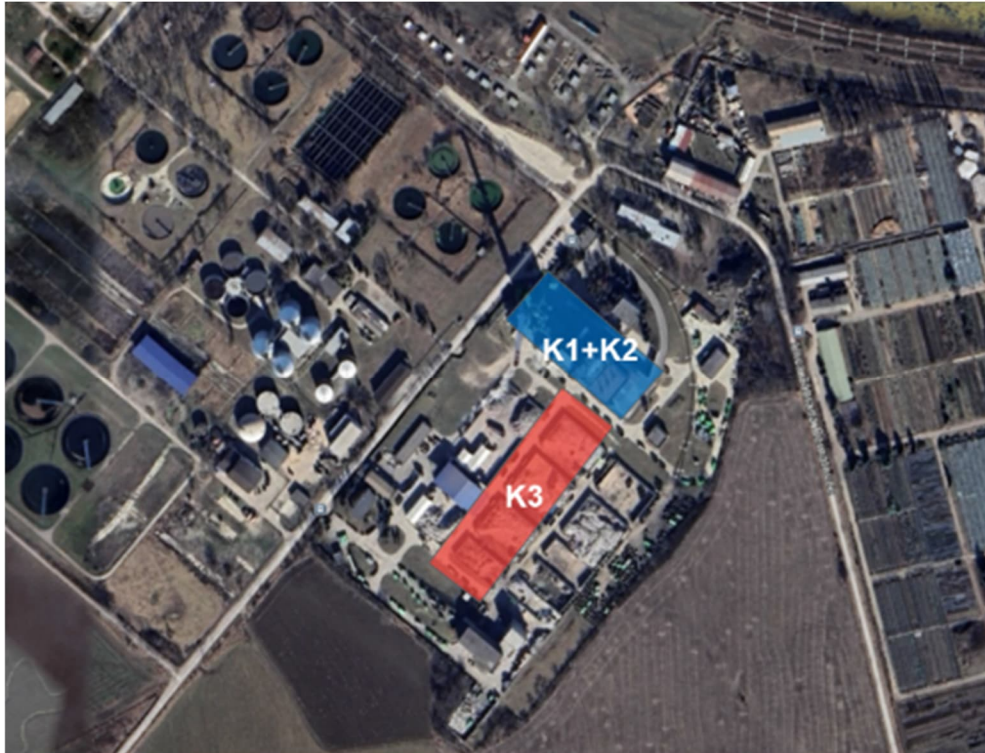
K3 will also supply electricity to the grid and heat to Košice's district heating system, replacing fossil fuels and enhancing energy security. It meets the EU's R1 energy efficiency criterion and is classified as a sustainable investment under the EU Taxonomy Regulation.

1.5.1 K3 SITE LOCATION

The K3 Project will be constructed within the existing industrial premises of KOSIT a.s. at Košice, in eastern Slovakia. K3 will be located on a paved area as shown in **Figure 1-3**, which is currently used for the storage of bulky waste before entering the K1/K2 bunkers.

The location benefits from established infrastructure, including access roads, utility connections, and proximity to the existing K1 and K2 incineration lines. This co-location allows for operational synergies, such as shared logistics, emissions monitoring, and maintenance services. The site is also strategically positioned to serve a wide collection region encompassing Košice, Prešov, and other municipalities in eastern Slovakia.

Figure 1-3 - Locations of K1, K2 and K3 sites



The list of shared infrastructure with the existing K1 and K2 is presented below:

- Transport connection, gatehouse and weighbridge;
- Existing access road to the tipping platform and tipping platform;
- Parking areas and internal roads;
- Existing waste sorting system on the WtE site (no additional space required);
- Suitable existing industrial water supply;
- Common water treatment plant;
- Adequate connection to the sewerage and storm water drainage network;
- Drinking water supply;
- Connection to gas distribution;
- Fire protection of the premises and technology; and
- Experienced operating staff, warehouse management, operational maintenance staff and equipment.

However, some associated facilities require to be constructed alongside the K3 line. These are the following:

- Substation and overhead transmission line (OHTL), allowing for electricity produced to be off taken to the local grid connection in Sebastovce; and
- Hot water pipeline (HWP), connecting the hot water generated by K3 to be connected to the district heating network of the city of Košice.

These are presented in the **Figure 1-4** below.

Figure 1-4 - Substation and OHTL in red and HWP in blue



1.5.2 SUBSTATION AND OVERHEAD TRANSMISSION LINE

The construction of the substation and 110 kV line in Šebastovce – Barca is situated in the cadastral area of Šebastovce and Barca, within the Košice IV district and the Košice region. This project, led by Východoslovenská distribučná a.s., who also serve as the construction contractor and designer, entails the development of a new electrical transformation station for converting 110/22 kV. It will be connected to the existing VHV line No. 6831 in Šebastovce via a new VHV line measuring 2x110 kV and 2853.6 metres in length.

The proposed line route, approximately 2900 metres long, is designed as a variant and lies outside the built-up areas of municipalities. The terrain is flat and intersects with a class III road, a railway, sewerage infrastructure, and five high-voltage lines. The poles will be constructed from galvanised steel lattice structures, with conductors arranged in a “keg” configuration for double wiring. These poles will feature risers mounted on corner angles and components for guiding belay ropes. A combined earth rope will be affixed to the tops of the poles, which will range in height from 25 to 40 metres, with specific dimensions detailed in the project documentation.

Planning and construction responsibilities lie with Východoslovenská distribučná, a.s., a company owned by Východoslovenská energetika Holding a.s., which has been part of the ZSE Group since 23 November 2023. As of that date, VSE Holding shares are owned by Západoslovenská energetika a.s., whose shareholders include the Slovak Republic (51%), represented by the Ministry of Economy, and the E.ON Group, which holds the remaining 49%. All easement agreements have been secured for the OHTL and required permits are in place.

1.5.3 HOT WATER PIPELINE

The proposed HWP will be constructed from pre-insulated steel piping with polyurethane rigid foam (PUR) insulation. The dimension of the pipeline will be DN300 (a 12-inch nominal pipe size with an outside diameter of 323.8mm) and will be 7km in length. The pipeline will operate at 2.5MPa and 130 degrees Celsius, have a capacity of 34MW of heat and will benefit from a long-term contract with the local district heating company. This contract currently runs until 2031, with prolongation in negotiation.

1.6 EIA STATUS

1.6.1 K3 SITE

According to Slovakian Act No. 24/2006 Coll. on Environmental Impact Assessment and Amendments to Certain Acts, activities listed in Annex No. 8 must undergo an impact assessment. The K3 Project, which entails modifications to the existing activity of energy recovery from waste, is categorized under "Disposal or recovery of other waste in incineration and co-incineration plants." As a result, this Project requires a mandatory comprehensive assessment without limitation. The EIA report has been undertaken by a third-party consultant, EKOS PLUS s.r.o, in December 2022.

A statement of compliance with the national EIA's process as outlined in the EIA Directive, includes:

- How the project was screened by national authorities;
- The EIA procedure that was followed;
- The public participation process implementation;
- Considerations of potential cumulative impacts and area of influence issues (e.g., raw material sourcing);
- Greenhouse gas (GHG) assessment; and
- Waste and material resources assessment.

The following timeline was completed by KOSIT to complete the EIA process:

- 27/05/2021 - Submission of Project K3 WtE Košice – intention;
- 08/10/2021 - Publication of the scope of the evaluation;
- 22/06/2022 - Publication of the Evaluation Report;
- 21/07/2022 - Public hearing in Košice;
- 12/12/2022 - Ministry of the Environment of the Slovak Republic – issue of a final opinion;
- 16/01/2023 - Final decision referred to the appeal committee of the Minister of the Environment; and
- 24/04/2023 - Appeal committee confirmed the final approval decision for the EIA.

1.6.2 OVERHEAD TRANSMISSION LINE AND SUBSTATION

The EIA for the overhead transmission line and substation was developed by ENVIS s.r.o, at the request of VDS. This EIA was developed separately to the K3 EIA and was published in January 2023. It follows the same structure as the K3 EIA presented above and concludes that "the proposed activity in Option 1 has no environmental impact". Social impacts were not covered adequately in this EIA and is therefore addressed in **Section 2** in this report.



1.6.3 HOT WATER PIPELINE

An Environmental Screening document for the HWP is dated from June 2024, and an approval decision was provided by the Košice District Office's Department of Environmental Care. Given the alignment with existing infrastructure (such as the railway entering Košice, other heating pipelines and gas/electricity utilities) and the limited environmental footprint, the screening concluded that HWP component is expected to have minimal environmental impacts. The approval states:

"Taking into account the current state of the environment, we do not expect the impacts of the proposed activity to be such that they could significantly affect the environment or human health".

Nonetheless, multiple measures to mitigate against any adverse environmental impacts are listed in the screening document and approval decision. The E&S measures outlined are proportionate with the potential impacts of the HWP. However, both documents above noted that the exact alignment had not been agreed at the time of writing. **Section 2** provides further information on the likelihood and severity of any social impacts caused by the HWP, providing evidence of how impacts on livelihoods will be avoided.

A rapid E&S screening exercise will also be undertaken when the HWP alignment has been finalised. This focused E&S screening will include a review of proximity to live rail and road infrastructure, potential impacts on local communities (including temporary or permanent economic displacement, or access severance etc) or businesses, and any biodiversity or environmental sensitivities.



2 SOCIAL IMPACT ASSESSMENT

2.1 BACKGROUND AND OBJECTIVES

This chapter presents a Social Impact Assessment (SIA) for the proposed Project, encompassing the K3 facility, overhead transmission line (OHTL), substation, and HWP pipeline. The assessment has been developed using available secondary data; no primary data collection was undertaken. The analysis draws on robust secondary sources as well as selected engagement with stakeholders and will identify and evaluate key social risks and impacts.

This SIA chapter has been drafted in order to assess the potential social impacts that were not included in the previous EIA developed for the Project, and are required under the EBRD ESP (see Section 1). It has been developed for all Project components, including the K3 plant, OHTL, substation and HWP.

Note that additional social actions have been included in the Project's separate ESAP, in order to ensure compliance with the EBRD ESP. This ESAP ensures that any areas on non-compliance, such as in labour and working conditions, community health and safety (H&S) and stakeholder engagement, are improved. Whereas the objective of this chapter is to provide further assessment of the potential social impacts of the Project, and ensure any further suitable mitigation measures are undertaken.

2.2 SOCIAL AREA OF INFLUENCE (AOI)

The Social Area of Influence (AoI) for this assessment has been delineated based on the physical footprint of the proposed Project components—namely the K3 facility, overhead transmission line (OHTL), substation, and hot water pipeline—as well as the surrounding context of sensitive social receptors, infrastructure, and land use. **Figure 2-1** below presents the Social AoI for the Project.

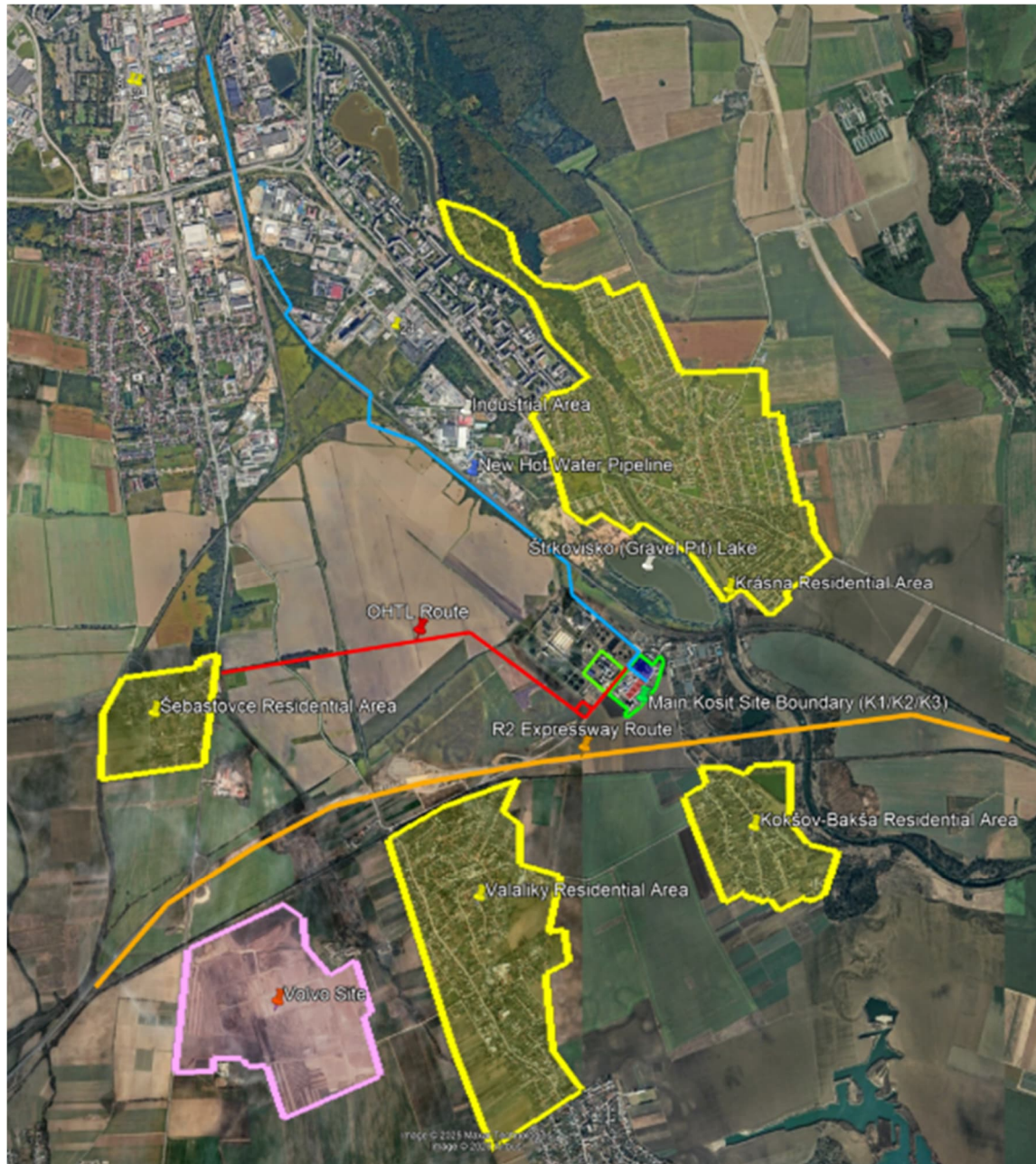
Figure 2-1 - 4 km radius around the Kosit site



This social assessment has applied a study area that encompasses:

- Neighbouring residential settlements in proximity to the K3 site, as illustrated in **Figure 2-2** below. These include communities that may be affected by construction-related nuisances such as noise, dust, and traffic disruptions.
- Sensitive receptors, including Oáza Homeless Shelter located near the K3 site, which represents a potentially vulnerable population requiring targeted engagement and mitigation, as shown in **Figure 2-3** below.
- Agricultural land surrounding the main KOSIT site, which may be impacted by temporary land access restrictions or changes in land use during construction.
- Key infrastructure features, such as:
 - A broad-gauge railway adjacent to the site;
 - Štrkovsko (Gravel Pit) Lake;
 - The R2 Expressway, currently under construction and scheduled for completion in 2025; and
 - Kokšov-Bakša cemetery, located approximately 500 meters southeast of the site boundary.

Figure 2-2 - Project features and surrounding residential areas



Note: Blue line = HWP, red line = OHTL, orange = new R2 expressway under construction, yellow = residential areas and purple = new Volvo manufacturing site.

In addition, the Social AoI includes the full alignment and immediate neighbouring areas of the proposed OHTL (red) and HWP (blue) routes, as presented in **Figure 2-2**. These corridors intersect with agricultural zones, which may be subject to temporary or permanent disruption. The assessment considers both direct and indirect social impacts along these routes, including potential displacement, access limitations, and livelihood impacts.

It is anticipated that the contractor offices, laydown area and worker facilities are likely to be located within the existing K1/K2 site, alongside the K3 construction area and within the established Social AoI. This will be confirmed when the contractor is selected. The location of worker accommodation

has not yet been established as the K3 EPC contractor has not yet been selected. It is likely that this accommodation will be located within the Social Aol presented above, in order to ensure a short commuting distance to the site. If located outside of this area, the Social Aol will be expanded to include the location of these sites.

The delineation above attempts to ensure that all relevant social receptors and land uses are captured within the scope of the assessment, allowing for the identification of appropriate mitigation measures and stakeholder engagement strategies.

Figure 2-3 - Map of OHTL (red) and HWP (blue) routes leaving the site



Besides the sensitive social receptors and settlements listed above, the main KOSIT site is surrounded largely by agricultural land, a nearby broad-gauge railway, Štrkovisko (Gravel Pit) Lake and the R2 Expressway (orange line, currently under construction and scheduled for completion in 2025). Kokšov-Bakša cemetery is also located 500m from the southeast boundary of the site.

2.3 IMPACT ASSESSMENT METHODOLOGY

A targeted supplementary desktop assessment was conducted to address the social gaps identified in the previous assessments related to the Project. The methodology comprised a comprehensive

desk review of all available documentation, including EIAs¹ and annexes, the Environmental and Social Due Diligence (ESDD) report and the Stakeholder Engagement Plan (SEP). In addition, a social baseline was developed for this review, drawing on both the EIAs and the Health Impact Assessments (HIA) of the K3 plant and OHTL and substation, with particular attention given to the identification of vulnerable groups.

The assessment considered social risks and impacts across both construction and operational phases of the Project and involved a cross-check of identified gaps against the requirements of the EBRD Performance Requirements. Where gaps were identified, indicative mitigation measures were proposed and, where appropriate, corresponding actions have been included in the ESAP.

The Project's Social AoI has been preliminarily delineated using a 4 km radius from the central site location (see **Figure 2-2**) and the location of the HWP extending north from the site, serving as a spatial reference to guide assessments of potential environmental and social impacts, developed based on the review of available documentation and on indicative distances typically considered in international guidance for this type of industry (e.g. EBRD PRs, EU Best Available Techniques Reference documents).

This Social Area of Influence should be considered when evaluating potential interactions between the Project and affected communities, while recognising that specific boundaries may be refined during subsequent implementation of the KOSIT's social activities, through structured stakeholder engagement and the establishment of community feedback mechanisms to ensure that concerns are adequately captured and addressed.

This social assessment has been based on a combination of secondary data sources, including the following:

- Project information and designs provided by KOSIT;
- Satellite imagery; and
- Desktop study to obtain socio-economic baseline data e.g. Slovakia census data.

2.3.1 ASSESSMENT PRINCIPLES

The social assessment has been guided by the principles of materiality, proportionality, and inclusion, in line with the EBRD PR. The evaluation covered both the construction and operational phases of all Project components, applied a precautionary approach in cases of uncertainty, and prioritised the identification of potential disproportionate impacts on vulnerable groups.

2.3.1.1 Impact Significance and Receptor Sensitivity

Risks and impacts that pertain to project-affected communities and workers, and are related to human rights, socioeconomic status, access to resources, livelihoods, resettlement, vulnerability,

¹ National EIA available at <https://www.enviroportal.sk/eia/detail/zevo-kosice-modernizacia-zabezpecenie-prevadzkovej-stability-zariadeni>; <https://www.enviroportal.sk/eia/detail/vystavba-es-110-kv-vedenia-sebastovce-barca>; and <https://www.enviroportal.sk/eia/detail/kosice-rozsirenie-horucovodnych-vedeni>

gender issues, cultural heritage, labour and working conditions, community, health and safety, and participation in decision making.

Descriptions of the criteria used to evaluate the magnitude of potential social impacts are provided in **Table 2-1** below:

Table 2-1 – Descriptions of the criteria used to measure magnitude of social impacts

Magnitude	Criteria Examples
Very Large Adverse	<ul style="list-style-type: none"> Permanent reduction in the ability of landowners and users to exploit their land, such that economic displacement (as defined in EBRD ESR 5) affects over 20 persons and their households; Physical displacement of more than 20 households in a Project-Affected Community (PAC). Multiple vulnerable groups are adversely impacted by physical and economic displacement; All households and individuals in a PAC will be unable to adapt to the loss or change of use of land.
Very Large Beneficial	<ul style="list-style-type: none"> Large scale or major improvement of socio-economic condition of community; Major improvement in infrastructure and access to better services, large scale job opportunities for local people.
Large Adverse	<ul style="list-style-type: none"> Permanent reduction in the ability of landowners and users to exploit their land, such that economic displacement (as defined in EBRD ESR 5) affects 10-20 households in a Project-Affected Community (PAC); Labour influx (more than 1,000 international workers) as a result of construction workers' accommodations adjacent to residential areas (less than 300m). A vulnerable group is adversely impacted by physical and economic displacement; Most households and individuals in a PAC (typically greater than/or equal to 75% but less than 100%) will be unable to adapt to the loss or change of use of land.
Large Beneficial	<ul style="list-style-type: none"> Improvement of socio-economic condition of community at regional level; regional improvement in infrastructure and access to better services, job opportunities for local people at regional level.
Moderate Adverse	<ul style="list-style-type: none"> Permanent reduction in the ability of landowners and users to exploit their land, such that economic displacement (as defined in EBRD PR 5) affects a few households (up to 5). Households and individuals in a PAC may be able to adapt to the loss or change of use of land, but the transition period will be difficult for some households/individuals (up to 5). Large labour influx (less than 1,000 employees) as a result of construction workers' accommodations within distance (more than 500m) from any settlements. An undesired event that results in temporary disability or greater than 5-day of lost time due to an incident.
Moderate Beneficial	<ul style="list-style-type: none"> Minor benefit in terms of socio-economic condition and job opportunities at small scale.
Slight Adverse	<ul style="list-style-type: none"> Temporary (<1 year) or intermittent negative changes to some aspects of the ability of landowners and users/Project Affected

Magnitude	Criteria Examples
	<p>Persons (PAPs) to exploit their land or other resources that do affect the livelihoods, economic opportunities or options for improvement of the standard of living, but to which most individuals/households are expected to be able to adapt relatively easily.</p> <ul style="list-style-type: none"> An undesired event that results in 1 day to 5-day of lost time due to an incident.
Slight Beneficial	<ul style="list-style-type: none"> Very minor benefit to or positive addition of one or more characteristics, features or elements.
No Change	<ul style="list-style-type: none"> No change to the current socio-economic environment associated with the Project (no change). An undesired event which has the potential to raise the concern of on-site personnel only resulting in no lost time due to an incident.

Table 2-2 below provides the description of the sensitivity:

Table 2-2 – Social impact sensitivity

Sensitivity / Value	Criteria
Very High	<ul style="list-style-type: none"> Receptors are extremely vulnerable with little or no capacity to adapt. Changes may threaten survival, cultural identity, or essential services. High risk of irreversible harm or displacement of more than one PAC.
High	<ul style="list-style-type: none"> Receptors include vulnerable populations (e.g. low-income, elderly, indigenous groups). Limited resilience and high dependence on affected resources or services. Social systems are sensitive to change.
Medium	<ul style="list-style-type: none"> Receptors may include some vulnerable individuals or groups. Limited access to support or coping mechanisms. Moderate risk of disruption to livelihoods or social cohesion.
Low	<ul style="list-style-type: none"> Receptors are generally resilient with access to resources and support systems. Minor disruptions can be absorbed without significant hardship.
Negligible	<ul style="list-style-type: none"> Social receptors have high resilience and adaptive capacity. No vulnerable groups present. Changes are unlikely to affect well-being or social functioning.

2.4 CONTEXTUAL SOCIAL RISK ANALYSIS

This section provides an overview of the social context within the City of Košice, providing a brief analysis of the WtE sector in the city, public sentiment, and any ongoing social issues within the city. It is informed by a media search and available public datasets.

2.4.1 KOŠICE AND WTE PLANTS

Košice itself is one of the poorest regions in the EU, with a GDP at 51% of the EU average. The city struggles with energy poverty and limited municipal revenue, which constrains its ability to independently fund or manage large infrastructure projects. Although Košice has committed to reducing emissions by 40% under its Sustainable Energy and Climate Action Plan (SECAP), implementation has been hindered by fragmented governance, limited technical capacity, and lack of systemic municipal energy policy.

Despite these challenges, Slovakia remains a member of the EU and NATO, and its national waste management policies are aligned with EU directives. The Waste Management Plan 2021–2025 and the Waste Prevention Programme 2019–2025 emphasise waste reduction, recycling, and energy recovery, with incineration positioned as a viable alternative to landfilling. The Slovakian Ministry of Environment announced in April 2025 that its next Waste Management Strategy of the Slovak Republic will cover the period out to 2035, rather than covering five-year periods as had historically been the case. This new strategy will connect the Waste Prevention Programme of the Slovak Republic, Food Waste Prevention program of the Slovak Republic, and Waste Management Programme of the Slovak Republic into one single strategic document. It was announced on 22nd May 2025 that this document is currently undergoing review.

Local-level security in Košice remains stable, with no reported incidents of sabotage or organised opposition to waste management infrastructure. Nonetheless, the broader national climate of political tension could indirectly affect public trust and stakeholder engagement in new projects.

Public opinion in Slovakia regarding waste management is shaped by increasing awareness of environmental sustainability and EU-aligned waste reduction goals. The country has made progress in recycling and composting, although landfilling remains prevalent due to consumer habits and infrastructure gaps.

Košice is home to one of Slovakia's two existing municipal waste incineration plants, operated by KOSIT a.s. The facility is viewed as a leader in WtE conversion, producing both electricity and heat for the city's energy network. KOSIT has partnered with APOH (Association of Entrepreneurs in Waste Management) and aligns with EU waste reduction targets, suggesting strong institutional support for WtE initiatives.

2.4.2 PUBLIC OPINION ON WTE

The stance of the Slovak public—and specifically residents of Košice—towards new WtE projects is nuanced, shaped by environmental concerns, economic realities, and past experiences with existing infrastructure:

- **General Support for Energy Recovery:** Slovakia's national waste management strategy supports energy recovery from waste as part of its transition to a circular economy. The country recognises WtE as a viable alternative to landfilling, especially for non-recyclable waste.
- **Environmental Concerns:** While there is institutional support, environmental NGOs like Priatel'ia Zeme – SPZ (Friends of the Earth Slovakia) have raised concerns about pollution risks. A report published by Friends of the Earth (FoE) in 2005 stated that the Košice municipal incinerator was previously emitting dioxins above EU limits, sparking public concern and scrutiny. Since then, the KOSIT facility has been modernised multiple times,

with emissions data now showing the site to be consistently under EU emission limits value. Overall, on one hand KOSIT is seen as a leader in WtE conversion, providing electricity and heat to the city and aligning with EU sustainability goals. While on the other hand, this previous study and historic polluting over 20 years ago may still cause distrust and negative sentiment towards the Company and site today by environmental activists.

- Policy Alignment: Slovakia's Waste Prevention Programme (2019–2025) and Waste Management Plan (2021–2025) emphasize waste reduction and energy recovery, but also stress the importance of avoiding overreliance on incineration at the expense of recycling.

KOSIT and its partners, including APOH (Association of Entrepreneurs in Waste Management), actively promote WtE as a socially responsible and environmentally sound solution. Local government and business leaders have generally supported WtE expansion, citing economic benefits and alignment with EU directives.

There is no significant evidence of organized NGO or CSO opposition to waste incineration in Košice. Media coverage portrays KOSIT positively, emphasising its role in environmental protection and social responsibility. However, FoE generally opposes WtE incineration projects, viewing them as environmentally harmful and counterproductive to sustainable waste management goals. Their primary arguments are that WtE facilities undermine recycling and waste reduction, release toxic pollutants, represent a false climate solution (as burning waste—especially plastics—releases greenhouse gases), and destroys valuable materials that could otherwise be reused or recycled. They advocate for zero-waste strategies and circular economy models instead.

FoE campaigns against new incinerator developments and pushes for regulatory frameworks that prioritize waste prevention and environmental justice. They also support legal action and community mobilisation to block WtE projects that threaten public health or environmental integrity.

In Košice, the existing incineration infrastructure and energy network provide a favourable foundation for expanding WtE capacity. However, the city's economic disparities and aging population may pose challenges in terms of equitable access to benefits and community engagement. Ensuring transparent communication and inclusive planning will be critical to mitigating social risks.

While no direct opposition or media controversies have emerged specifically regarding WtE development in Košice, the fragile national political climate and governance challenges warrant careful stakeholder engagement and risk mitigation strategies.

2.4.3 ROMA PEOPLE

When analysing the social context of Košice and Slovakia, a key social issue arising is the persistent and systemic discrimination of Roma people across multiple sectors. This includes discrimination in the following areas:

- Education: Roma children are often placed in segregated schools or classes, including the controversial “two-shift” system where Roma students attend school in the afternoons. This practice has been condemned by the European Commission and led to legal action against Slovakia for violating the Race Equality Directive.

- **Employment:** Roma individuals experience high unemployment rates and are frequently excluded from formal labour markets. Discrimination based on ethnicity and descent remains a major barrier to economic integration.
- **Social Marginalisation:** Roma communities often live in segregated settlements with limited access to public services, healthcare, and infrastructure. They are disproportionately affected by poverty and social exclusion.
- **Legal and Institutional Challenges:** Despite EU funding and national programs aimed at inclusion, many initiatives fail to address the root causes of discrimination. Roma voices are underrepresented in policymaking, and enforcement of anti-discrimination laws is inconsistent.
- **Policing:** Roma people continue to face excessive use of police force, with investigations often failing to address racial motives or ensure accountability.

Despite the above, KOSIT has taken proactive steps to support Roma inclusion. Primarily, KOSIT has employed Roma individuals in various roles within its waste management operations. This provides stable income, job training, and social integration for marginalised communities. They have provided novel banking and payment services to their Roma workers to support proper financial management.

Nonetheless, Roma people face persistent systemic discrimination and are a major vulnerable group in the context of the city of Košice.

2.4.4 ADDITIONAL SOCIAL ISSUES

As well as the marginalisation of Roma people, Košice is facing a number of other key social issues:

- Slovakia faces a public rental housing crisis, with thousands of low-income households unable to access affordable housing due to strict eligibility criteria. The Housing First initiative in Košice, led by the DEDO Foundation, currently supports 23 families, with plans to expand to 150 individuals (parents and children). Further, the Oaza Homeless Shelter neighbouring the existing KOSIT WtE site provides support for long-term disadvantaged people who “find themselves on the periphery of society without help and are at risk of poverty and especially social exclusion”. The aim of this facility is to provide temporary housing and reduce the number of people in material and social need through the provision of social services and professional assistance. The facility is managed by a local pastor and house approximately 250 people per year. They also accommodate families with small children and plan to increase the number of clients and places for families. Residents are encouraged to “earn their own living” by growing vegetables and raising livestock, however the facility is nonetheless dependent on financial contributions and assistance.
- As of September 2024, Slovakia hosts 122,242 refugees from Ukraine, with Košice playing a major role in providing housing, legal aid, and psychosocial support. UNHCR and local partners offer cash assistance, vocational training, and legal counselling to help refugees integrate and reduce vulnerability to gender-based violence.
- LGBTQ+ rights remain unprotected by law in Slovakia, and stigma is perpetuated by some state representatives.

- Recent legislation has restricted peaceful assembly, giving municipalities broad powers to prohibit protests—raising concerns about constitutional and human rights violations. NGOs focused on human rights and transparency have faced funding cuts and political attacks, including proposed laws that breach EU standards.

2.5 SOCIO-ECONOMIC BASELINE

2.5.1 ADMINISTRATIVE STRUCTURE

Košice, the second-largest city in Slovakia, is divided into 22 boroughs, each with its own mayor and local council, operating under the authority of the Košice City Municipality. The Project area and associated components (K3 facility, OHTL, HWP and substation) interact with several administrative units including Šebastovce, Krásna, Nad Jazerom and Barca, all of which fall within or adjacent to the jurisdiction of Košice IV District, as well as the villages of Kokšov-Bakša and Valaliky which are located outside the boundary of the City of Košice.

2.5.2 POPULATION CHARACTERISTICS

The population of Košice is approximately 240,000, with the affected boroughs ranging from small villages (Kokšov-Bakša) to larger urban districts such as Nad Jazerom (~22,000 inhabitants). The majority ethnic group is Slovak, with minorities including Roma, Hungarians and Ukrainians. The presence of Roma populations, particularly in marginalised settlements, represents a key consideration for the Project's social baseline and vulnerability analysis.

2.5.3 EMPLOYMENT AND ECONOMY

The economy of Košice is diversified, with a strong industrial base led by U.S. Steel Košice, one of the region's largest employers, alongside energy generation, food processing, and automotive services. In recent decades, the service sector and logistics have expanded, reflecting the City's role as the economic hub of eastern Slovakia. Employment rates in Košice are broadly in line with national averages, though unemployment remains more prevalent among vulnerable groups such as Roma communities and young people entering the labour market. In the settlements adjacent to the Project components, local livelihoods are linked primarily to agriculture, small-scale services, and commuting to industrial and service jobs within Košice.

2.5.4 SOCIO-ECONOMIC CHARACTERISTICS OF SETTLEMENTS

Kokšov-Bakša - neighbouring village

Kokšov-Bakša is residential in character and located southeast of the Project site in a rural setting rich in farmland, with agriculture providing the majority of local employment. The village does not have significant industrial activities within the village itself, and apart from agriculture, jobs exist in local services like the town hall, retail stores and other small enterprises. Many village residents commute to the city of Košice for work, taking advantage of the larger job market while enjoying a quieter lifestyle in the surrounding smaller village.

The most recent census undertaken in Slovakia was in 2021, where the population of Kokšov-Bakša was 1,251, with an even gender split (631 males and 620 females). It is an old settlement, originating from the mid-13th century, with the majority ethnic group being Slovak.

Its proximity to the planned infrastructure means the community may experience indirect effects from construction traffic and potential land disturbance. The village is the residential area located

closest to the existing K1/K2 facility, however they will not experience any land take due to the Project.

Figure 2-4 - Kokšov-Bakša area boundary



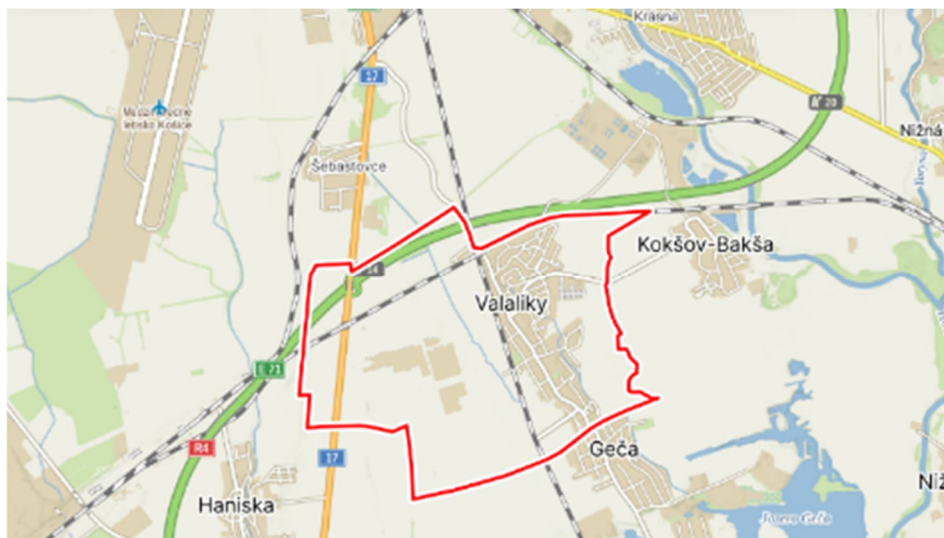
Valalíky – neighbouring village

Valalíky is another village situated close to the Project area. It is primarily residential with agricultural activities contributing to local livelihoods. The settlement originated in the 14th century and the latest census in 2021 found the population of Valalíky to be 4,549, with the majority being Slovak (84.7%). HunValalíky Industrial Park, currently under construction, is located south of Košice and in the boundaries of the village, and will be one of Slovakia's largest and most modern industrial and logistics hubs. It will be the largest industrial park in eastern Slovakia, where Volvo Cars Corporation are currently building an electric car production plant through its subsidiary, Volvo Cars Slovakia.

Significant resources were dedicated to the improvement of local environments during the development of the Industrial Park, including the relocation of the Valalíky channel, surrounded by 50ha of a green belt separating zone from the housing. The Industrial Park will also provide for the replacement planting of more than 2 500 trees, the construction of new habitats, including gopher and eagle nests. The Industrial Park has also committed to the construction of 11 kilometres of new cycle paths and 16 kilometres of new roads. A railway will also be built, which will lead to the line Košice – Hidasnémeti – Budapest. The construction of the strategic park also includes investments in utility networks, increasing the capacity of electricity, water and sewage connections or connecting public water supply systems in the vicinity.

No direct land take is currently anticipated from Valalíky for any aspect of the K3 Project. Residents in Valalíky maybe experience some cumulative indirect impacts due to the ongoing construction of the nearby Volvo electric passenger vehicles production plant, as well as the K3 site. However, no construction traffic will pass through the residential area of this village.

Figure 2-5 - Valaliky area boundary

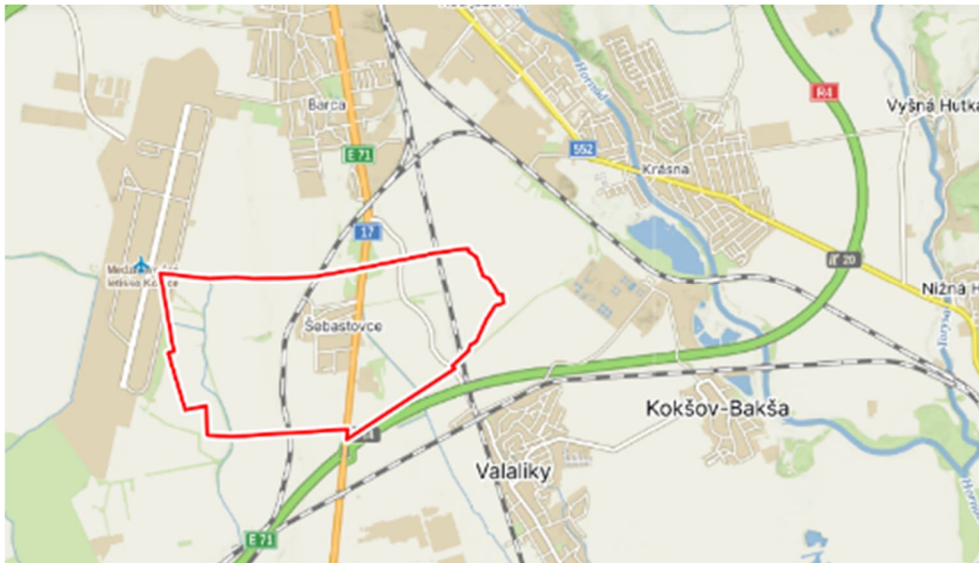


It is noted that the Valaliky Industrial Park Project will alter the transport network surrounding Valaliky and Šebastovce. This is presented in **Appendix I**.

Šebastovce (OHTL route)

Šebastovce lies in the southern part of Košice and is intersected by the OHTL route. The population of this settlement is 770, with 48% male (373) and 52% female (397), according to the most recent 2021 census. The village of Šebastovce first appeared in written records in the 13th century and in the 20th century, Šebastovce lost village municipality status and was annexed to Košice as one of its boroughs. The Košice - Šebastovce urban district is located as a peripheral urban district in the Košice IV district. This urban district has a rural character and is characterised by residential areas with local services and small businesses. A kindergarten and the church of St. John the Baptist are located in the settlement. Its location near the OHTL corridor suggests a need to address community health and safety concerns, particularly regarding noise, dust, and visual impacts. Easement agreements have been agreed to use land from the settlement for the OHTL.

Figure 2-6 - Šebastovce area boundary

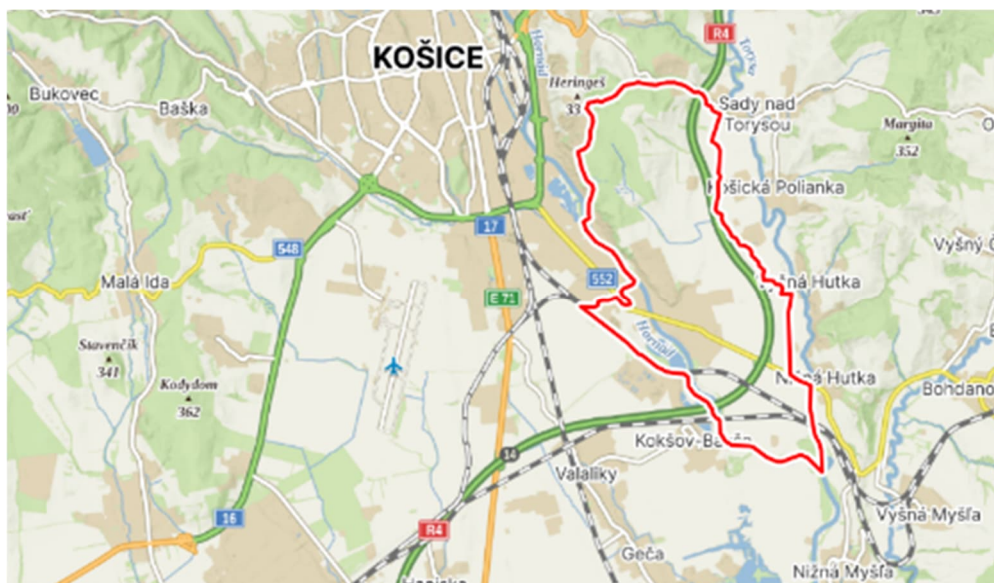


Krásna – Košice IV District

Krásna is part of Košice IV District and is located south of the main urban centre. The first written record of Krásna dates back to the 12th century. It was an independent village municipality until 1945, when it was connected with the City of Košice. The latest population according to the 2021 census was 5,895. The area is largely residential with access to local schools (one primary, one elementary), health services, and small businesses. Multiple sites of significant cultural heritage are located in Krásna, such as the Meško manor house, Kaštieľ Krásna and the Church of St Cyril and St Methodius.

Its location near Project components requires engagement with residents to ensure clarity regarding potential impacts on community access and road safety, though no significant direct impacts are currently anticipated.

Figure 2-7 - Krásna area boundary



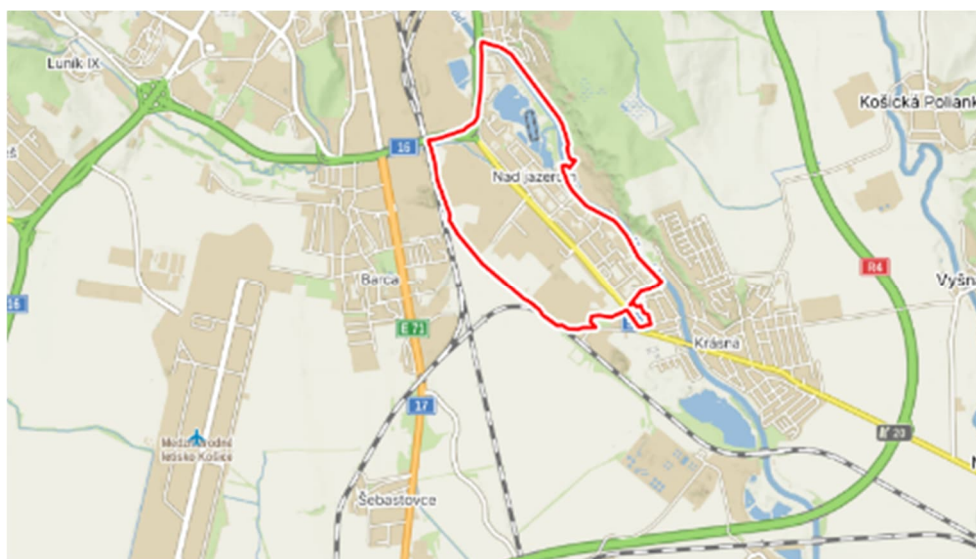
Nad jazerom (also known as Jazero – HWP route)

Nad Jazerom is an urban borough of Košice IV, with large housing estates. It has over 9,000 housing units and combines residential and industrial functions. The latest census in 2021 found the population to be 22,686. Nad jazerom first appeared in written records in the 13th century and became a borough of Košice in the late 1960s. Five elementary and four secondary schools are located in the district. Some informal Roma settlements are also located in the district, located in abandoned industrial areas and areas alongside the railway line leading to the city centre.

Assessment of this area is presented in **Figure 2-8** below, which concludes that the area will not be disturbed by the HWP alignment. Risk of interference is also categorised as low, given the presence of existing utilities in the area and the fact that the HWP will be underground in this area (and most of the alignment).

The borough is notable for its proximity to the Hornád River and its recreational areas, including a forest park and cycle paths. Industrial facilities include the Košice Heating Plant (MH Teplárenský holding, a.s.), beverage and food production industries, bakeries, poultry processing, and automotive sales and services (Peugeot, Mitsubishi, Suzuki, AAA Auto). Work is currently underway in the district to improve the tramlines in the area, including dismantling the track superstructure, reconstructing the exchange office, removing traction supports and carrying out demolition work. The Hot Water Pipeline (HWP) runs through this borough, requiring careful coordination to minimise disruption to local transport and residential areas, particularly with other construction projects ongoing.

Figure 2-8 - Nad jazerom area boundary



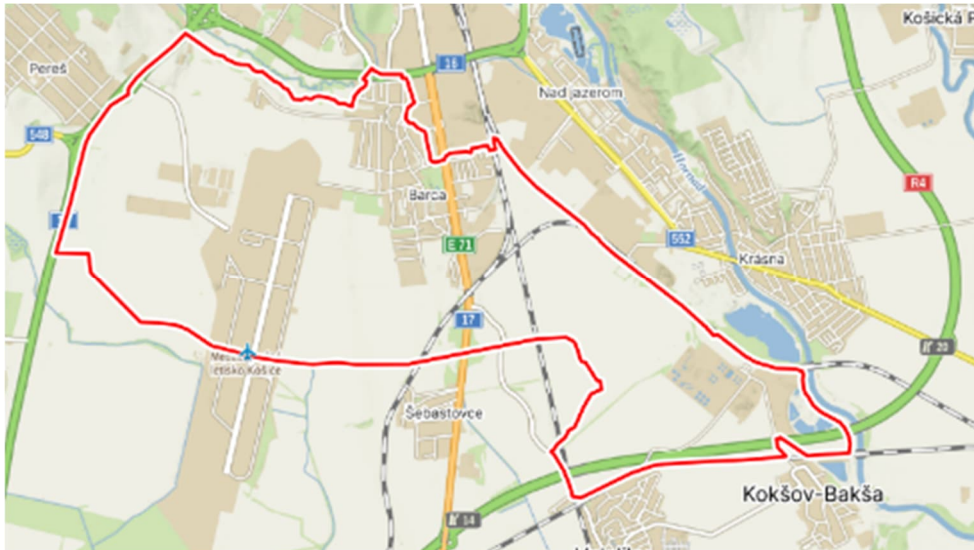
Barca – Košice District (K3 site, Substation, OHTL, HWP)

Barca is an established municipal district of Košice. The district hosts a mix of residential, commercial, and industrial activities. The existing K1, K2 and planned K3 sites are solely located in Barca. The population during the last census in 2021 was 3,692. Its urbanised character and connectivity with the wider city make it less dependent on agriculture and more integrated into the service and industrial economy of Košice.

In the medieval period, the village included a small castle of local noblemen, later demolished and replaced by a manor house of the Bárczay noble family. Barca has several more former manor

houses, including the manor house of the Zichy family and the Berzeviczi family manor house. The main churches of the borough are the Roman Catholic Church of St Peter and St Paul and the local Reformed church. Also within Barca's catastral territory is Košice International Airport, which is the second largest in Slovakia. Community concerns are likely to focus on construction-phase disturbances, access restrictions, and potential safety risks associated with the OHTL and the start of route of the HWP leaving the KOSIT site.

Figure 2-9 - Barca area boundary



The municipal district of Barca also includes the Oáza Homeless Shelter. This is presented in the **Figure 2-10** below:

Figure 2-10 - Oáza Homeless Shelter (circled in blue), bordering the KOSIT WtE site and northern edge of Barca municipal district (red line)



2.5.5 K3 SOCIAL RECEPTORS

The main K3 site and the associated facilities is situated next to key social receptors as shown in **Figure 2-11** below. This includes the Oáza Homeless Shelter and the Záhřada Bernátovce ornamental nursery outlined in white in **Figure 2-11**:

Figure 2-11 - KOSIT's existing site (outlined in green) composed of K1/K2 Site (blue area) plus K3 Project (red area); OHTL (red line) and HWP (blue line) routes



As stated in the Project Description (**Section 1**), the K3 site is located within the premises of KOSIT's existing site (outlined in green above) to the south-east of the city of Košice, in the cadastre of the Košice-Barca District (also known as Košice IV District). The K3 site immediately borders the K1/K2 site to the south, in an area assigned for industry under the Košice zoning plan. The existing KOSIT biogas facility is also located to the immediate north-west of the K3 site. The substation will be located to the south-west of the existing site on land currently used for agriculture. Land for this substation has also been purchased by VSD a.s. through a willing buyer-seller agreement.

The closest social receptors neighbouring the K1/K2/K3 and substation sites are as follows (as shown in **Figure 2-11** above):

- Wastewater treatment plant – immediate north-west: Operated by Východoslovenská vodárenská spoločnosť, a.s. (the East Slovak Water Company), this is the primary wastewater treatment plant (WWTP) of Košice, known as “ČOV”.
- Derelict building – immediate north-east: An unused medium-sized building in disrepair located next to the site.
- Oáza Homeless Shelter – 50m north: A shelter providing support for long-term disadvantaged people who “find themselves on the periphery of society without help and are at risk of poverty and especially social exclusion”. The aim of this facility is to provide temporary housing and reduce the number of people in material and social need through the provision of social services and professional assistance. The facility is managed by a local pastor and house approximately 250 people per year. No occupation figures of the

shelter are publicly available (e.g. total site capacity nor any potential proposed increases). They also accommodate families with small children and plan to increase the number of clients and places for families. Residents are encouraged to "earn their own living" by growing vegetables and raising livestock, however the facility is nonetheless dependent on financial contributions and assistance. This facility was built in this industrial zone when the K1/2 site was already operating and assigned as an industrial zone. Based on satellite imagery available, there are approximately 19 permanent housing structures established for the Shelter. There is no designated sanitary/hygienic protection zone with a fixed radius established for the existing K1/K2 incineration lines and there are no statutory minimum set-back distances for dwellings prescribed for WtE plants in Slovakia. Instead, the regulatory framework relies on permit conditions and compliance with air-quality/noise limits at the nearest sensitive receptors, aligned with the EU Industrial Emissions Directive and the BAT Conclusions for Waste Incineration (2019). In practice, this means the plant must demonstrate compliance at the closest housing, rather than meet a universal distance rule.

- Under the Slovak Decree of the Ministry of the Environment of the Slovak Republic on requirements for stationary sources of air pollution, the principles for the location of air pollution sources, including the application of recommended separation distances, are set out in Annex No. 10. According to this Annex, for incinerating non-hazardous waste with a capacity of > 3 t/h (as is the case for KOSIT), a separation distance of 700m is required. Oaza Homeless Shelter at 200m is therefore within this separation distance.
- The Regional Public Health Office was fully consulted within the K3 EIA process, but no comments were raised on the distance of the K3 site to the Oaza Homeless Shelter. Only one official statement was provided during KOSIT's zoning permit process, recognising the presence of the Oaza Homeless Shelter. In this statement there is no specific comments or evaluation of impacts on the "Oaza area", only a formal statement that "the proposal complies with the requirements of the law".
- The Figure below, taken from the HIA of the K3 EIA, shows that the dispersion modelling and emission concentrations of pollutants were calculated for at a measuring point within the Oaza Homeless Shelter. The HIA concluded that "even the maximum short-term concentrations of pollutants that occur under adverse dispersion conditions, at which the impact of a given source on air pollution is highest, are not significant from the point of view of effects". Further, the noise and vibration study found a "satisfactory acoustic situation" at the Oaza measuring point, and lowest odour threshold for ammonia (0.027 mg/m³) is much higher than the maximum short-term concentration of ammonia from site activities in the immediate vicinity and therefore should not be smelled by residents. It is therefore not anticipated that the Oaza Homeless Shelter will be impacted by air quality, noise emissions and odour above the EU limit values.

Figure 2-12 - Seven selected reference points selected for emission concentrations measurements and calculations for the dispersion modelling assessment (Oaza measurement point circled in red)



- No plans have yet been put forward to request the Shelter to relocate from this area. It is unlikely that the Shelter will be relocated prior to the construction and operation of K3.
- TOPlast – 100m north-east: A company converting recycled plastics in to “TOPeco” plastic to manufacture different plastic products for sale e.g. fencing, benches, garden furniture, flowerpots, trash cans, composters, manhole covers, gazebos, decking and flooring.
- Záhrada Bernátovce – 40m east: An ornamental nursery operated by The Košice City Green Management Department. This Department manages and maintains greenery in the seven Košice City Districts, with a budget allocated by the Košice City Council. At the Záhrada Bernátovce (Bernátovce Garden) site, they grow and sell deciduous and coniferous ornamental trees. 14 workers operate this section. Also within this site is a compost plant operated by four workers, where they process biological waste generated in the city. The main activities of the compost plant are recycling, waste treatment (i.e. crushing) and waste storage.

The three closest residential areas to the main KOSIT site (including K3 and the new substation) are the following:

- Northern boundary of the Kokšov-Bakša residential area – 620m.
- North-east boundary of the Valaliky residential area – 710m.
- South-east boundary of the Krásna residential area – 660m.

The Health Impact Assessment (HIA) in the EIA also presents the following distances. These are slightly larger distances than the above as the HIA measured distances from the stack (or “chimney”), not the site boundary:

Table 3 - Distances from main K3 site to surrounding settlements (source: HIA)

Village	Distance
Kokšov-Bakša (district Košice-surroundings)	800 m
Košice -Krásna (Košice IV district)	900 m
Valaliky (Košice-surroundings))	1,100 m
Košice-Barca	3,300 m
Centrum Oáza – kept as an administrative building	Within 200 m of a five-storey chimney

2.5.6 OHTL AND SUBSTATION SOCIAL RECEPTORS

The OHTL route will be located in the Košice IV District, in the cadastral territories of Šebastovce and Barca. The route runs from the substation plot neighbouring the WWTP directly to the point of connection to the existing HV line. The land on which the proposed activity will be located is currently registered as arable land, built-up areas and courtyards and a small section as water area. The area is currently predominantly used for agricultural production.

In total, 28 land plots are being impacted by the OHTL and easement agreements have been willingly agreed with 34 owners and users. **Figure 2-13** below provides a photo from the OHTL EIA on where the proposed OHTL will join the existing line:

Figure 2-13 – Location of the connection of the proposed OHTL to the existing 110 kV HV line


Five land plots with six land owners have also been purchased willingly for the substation. No sensitive receptors have been identified close to the OHTL route and substation. Note that any

landscape and visual impacts have been assessed in Section 3 of this document. Further, if any cropped areas will be disturbed, KOSIT will ensure that farmers are allowed to harvest all crops. WSP note that the EIA does include an action for the “construction work to be carried out with a view to harvesting agricultural crops”.

2.5.7 HWP SOCIAL RECEPTORS

KOSIT are currently in the process of negotiating and signing easement agreements with landowners along the alignment of the proposed HWP. As of 1 September 2025, the alignment of the HWP is defined in the Spatial Plan of the City of Košice as a public utility project.

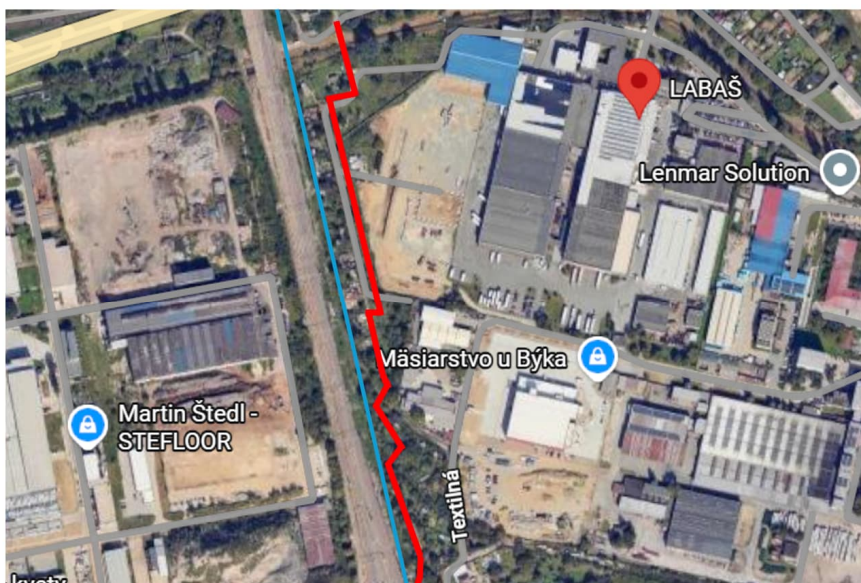
Easement agreements are required on 95 plots of land - 58 plots of land in the cadastral territory Barca (categorised as “land outside the built-up area”), and 37 in the cadastral territory Jazero (categorised as “built-up area”, within the City of Košice). There are approximately 446 different owners of these plots of land, with many owning multiple plots. There is an average of 4.8 owners per plot of land. There is a total of 310 different owners impacted by the HWP. The majority of owners are individuals, with some plots of land also being owned or co-owned by the central Government of Slovakia (13 total individual ownerships) and companies (41 total individual ownerships).

The current alignment of the HWP takes into account the existing railway line, utility networks, and informal settlements located along the alignment of the HWP, particularly in the cadastral territory Jazero. The full alignment of the HWP is provided in Appendix II and Appendix III.

Overall, the principle of displacement impact avoidance and minimisation has been applied for the HWP. The alignment has been adjusted and redesigned in order to avoid any foreseen physical or economic impacts. While KOSIT has the ability to demand easement agreements from landowners, this has not been exercised and no expropriation has occurred. Willing easement agreements have been agreed to date, with some negotiations still underway. ESR5 is therefore not currently triggered.

For example, **Figure 2-14** provides an example of where the HWP has been re-aligned to avoid informal settlements between an industrial area and the railway line, as shown between the red and blue line. These informal settlements have been created by Roma people to provide informal housing security. This is a common practise of Roma people in Slovakia, who face significant marginalisation (see **Section 2.4.3**).

Figure 2-14 - HWP re-alignment (red) vs original alignment (blue)



A potential impact of the HWP was that it could temporarily impact the garden areas of this informal housing, causing a loss of income and impacts on household food availability. However, as the new alignment (in red above), avoids these settlements by closely bordering the industrial area, no social impacts will be caused by the HWP.

Figure 2-15 below also shows how the HWP will follow the railway lines, avoiding actively used agricultural land:

Figure 2-15 - HWP proposed alignment neighbouring the railway line to the south of Košice, bordering agricultural land (HWP crosses underneath the railway)



The route alignment has been tweaked in order to maximise the following of existing utility lines, district heating pipelines or unused border areas that are mainly parallel to the railway leading in to Košice. Any agricultural users of these lands will not be impacted by the HWP as they will be



allowed to harvest all crops prior to the Project construction, and farming can continue after the underground installation of the HWP.

2.5.8 CHILD AND FORCED LABOUR

KOSIT Group currently employs around 1,300 staff, including approximately 1,144 men and 156 women. Almost all staff are on full-time contracts. Female employees are primarily concentrated in office-based roles, whereas operational functions (e.g. street cleaning, site operations) remain male-dominated.

KOSIT has a formal Child and Forced Labour Policy aligned with national legislation and international standards, explicitly prohibiting the employment of anyone under 18 years of age and forbidding all forms of forced labour. The Policy also extends to suppliers and subcontractors, who are expected to adopt equivalent safeguards.

2.5.9 WORKER GRIEVANCE MECHANISM

KOSIT has several worker grievance channels available. These channels are included within the code of conduct, grievance mechanism, the anti-social activity grievance mechanism (with whistleblower protection), and a collective bargaining agreement grievance mechanism. Contractors have not yet been engaged for the Project; their grievance mechanisms will therefore be reviewed as part of the company's procurement procedures and during contractor onboarding.

2.5.10 SUPPLY CHAIN

KOSIT has established a Supplier and Customer Code of Ethics that sets minimum requirements on non-discrimination, prohibition of forced and child labour, respect for freedom of assembly, and provision of safe and healthy working conditions. Compliance is expected across all tiers of the supply chain, with mechanisms available for reporting breaches. Note that further assessments and improvements to the KOSIT supply chain management are included in the ESAP, including requirements for monitoring suppliers compliance with the Customer Code of Ethics.

2.5.11 GENDER

No incidents of gender-based violence and harassment (GBVH) against community members or against KOSIT workers have been reported in KOSIT's operations or the Project area. Workers are trained under a code of conduct that emphasises appropriate workplace behaviour, particularly given the proximity of street cleaners to local residents. In addition, internal labour practices include provisions on equal opportunity and non-discrimination.

2.5.12 COMMUNITY HEALTH AND SAFETY

No significant public health risks have been identified for the Project area. The HIA assesses potential community health risks could arise from air emissions from the WtE plant, but it is noted that BAT would be used to adequately manage and control exposure. Additional sources of potential impact include odour from waste handling, noise from operational equipment and transport, and the handling of hazardous residues such as fly ash. While soil and groundwater samples analysed for the HIA showed no exceedance of indicative criteria. KOSIT's broader waste management operations, including hazardous waste collection campaigns, help reduce public exposure to harmful substances and as such reduces the risk for community H&S.

2.5.13 COMMUNITY INFRASTRUCTURE

The Project area is located in the southern periphery of Košice, specifically across the urban districts of Šebastovce and Barca, which have a semi-rural character with low-density housing and family homes. Both areas have historical roots dating back to the 13th century, though today they are primarily residential with limited industrial or service facilities. The immediate surroundings are characterised by agricultural land, minor road connections, and the presence of utilities such as overhead power lines, water pipelines, sewerage, and a DN 300 gas pipeline. Key community features include proximity to Košice International Airport (2 km west) and the crossing of both a main road and railway line through the affected area, which provide regional connectivity.

2.5.14 VULNERABLE GROUPS

Demographic trends in Košice show a gradual population decline driven by low birth rates, ageing, and outward migration, particularly in the Košice III and IV districts. These dynamics contribute to a higher proportion of elderly residents, who may be more sensitive to potential disruptions in community infrastructure, air emissions and services during Project construction. Roma settlements have been located next to the HWP alignment. Although not directly impacted these communities may be impacted by temporary construction activities and nuisances. Further, the presence of the Oáza Homeless Shelter adjacent to the site highlights the need to consider homeless individuals as a vulnerable group.

2.5.15 PUBLIC GRIEVANCE MECHANISM

KOSIT operates a community grievance mechanism accessible through its website, including a contact form, dedicated emails, and telephone numbers for residents and businesses. Multiple grievance channels exist. Further enhancement of the grievance mechanism will be achieved through alignment with the arrangements set out in the SEP, which will consolidate existing channels and improve accessibility and clarity.

2.6 IMPACT ASSESSMENT AND MITIGATION MEASURES

This SIA has been prepared based on a desk review of the available documentation, including the OHTL EIA, the HIA, the draft SEP, and municipal demographic data. No primary survey or consultation has been conducted, and findings rely on secondary data, grievances recorded to date and stakeholder mapping. The assessment follows the methodology of identifying receptors, evaluating magnitude and sensitivity, rating significance, and outlining mitigation and engagement measures in line with EBRD PRs.

2.6.1 CONSTRUCTION PHASE – SOCIAL IMPACTS

Table 2-4 – Construction Phase social impacts

Priority Social Risk Areas	Framework	Risk	Gap
Workforce influx	Peak of ~337 workers, mainly male, accommodated locally (no camps).	Risks: strain on local services, GBVH risks, community tensions in smaller villages.	Gaps: no Influx Management Plan or Labour Management Plan in place.

Priority Social Risk Areas	Framework	Risk	Gap
Labour & supply chain	No child/forced labour identified.	Risks: use of child / forced labour by contractors and suppliers	Gaps: - Need to undertake a Project supply chain mapping exercise to identify and assess the risk of child labour and forced labour in the Project supply chain
Community health & safety	Traffic and road safety from heavy vehicles and machinery. Handling/storage of hazardous materials.	Noise, vibration, dust: nuisance to neighbours; higher sensitivity for elderly and low-income groups.	HIA reviewed exposures during construction and operation (chemicals, noise and vibration, stress, air quality, odour) but did not fully identify vulnerable groups.

Land Acquisition

No involuntary land acquisition is required for the main K3 site, which is fully owned by KOSIT. For the OHTL, substation and HWP, land has been acquired or is under negotiation on a voluntary basis. The OHTL and HWP routes involve easement agreements across state, municipal, private, and church-owned plots. KOSIT has confirmed that all land access will be secured through voluntary agreements. There could also be expropriation in the future if no agreements are reached on easements, and its avoidance is not possible to exclude at this stage, although this is considered unlikely. Some agricultural land may be temporarily affected by construction activities although this has been minimised as much as possible through sensitive route design and will be minimised through constructing after harvest periods. Farmers will be allowed to harvest their crops before works begin, or appropriate compensatory measures will be agreed depending on the impacts at the time and the situation in relation to active leases, harvesting, etc.

Land restrictions will be in place above the HWP alignment and beneath the OHTL. No construction will be permitted (none currently planned), however cultivation is still permitted to be undertaken.

K3 Plant Construction – Nuisances on Local Neighbours (including Homeless Shelter)

The construction of the K3 facility will result in short-term nuisances to neighbouring communities, including dust, noise, and traffic increases. Sensitivity is high due to the presence of vulnerable receptors such as the nearby homeless shelter and low-income households. Magnitude is localised and temporary, but reversible.

Mitigation: Implementation of EIA measures (dust suppression, prohibition of night works, equipment maintenance, traffic control) and proactive engagement with affected neighbours, particularly the homeless shelter. Tailored communication and grievance support are essential.

Residual significance: reduced to Low with effective measures.

HWP Pipeline – Informal Settlements

Construction of the HWP pipeline will not affect informal settlements located along sections of the proposed route, as the alignment has been modified to avoid these impacts where known. These groups – due to their informality and limited legal protection – may be exposed to risks such as displacement, livelihood disruption, and safety issues. Easement agreement discussions are ongoing and realignment may occur again, however informal settlements will be wholly avoided. Magnitude is considered Moderate due to potential livelihood impacts.

Mitigation: KOSIT has committed to completely avoid informal settlements, and will continue to do so if future HWP realignment is required.

Residual significance: Negligible, provided successful implementation of any further route adjustments to avoid informal settlements.

Agricultural Land Users (HWP, OHTL and Substation)

Construction activities may restrict access to farmland, delay harvesting, or damage crops not covered under national easement agreements. Sensitivity is Moderate, given reliance of tenant farmers and seasonal users on agricultural income. Magnitude is temporary and reversible but could be significant at peak construction.

Mitigation: Schedule works to allow harvesting prior to construction.

Residual significance: Negligible, provided harvest is allowed and no delays in HWP installation. .

2.6.2 OPERATION PHASE – SOCIAL IMPACTS

Table 2-5 – Operation Phase social impacts

Priority Social Risk Areas	Framework	Risk	Gap
K3 Neighbouring communities	Continuous operation of K3 facility.	Nuisances from noise, air quality, traffic; potential disproportionate effects on nearby vulnerable receptors (e.g. homeless shelter, elderly).	No systematic monitoring framework for operational nuisances linked to social receptors; grievance uptake fragmented.
OHTL & Substation	Long-term presence of towers and substation infrastructure.	Visual intrusion;; safety risks during maintenance. EMF exposure is not deemed to be a risk given that there are no residences in close proximity.	No dedicated community information/awareness programme on safety precautions.

Priority Social Risk Areas	Framework	Risk	Gap
HWP pipeline	Permanent easements restricting land use.	Restrictions on agricultural land; easement agreements still under negotiation with expropriation option available.	Easement agreements are under negotiation and avoidance of expropriation to be confirmed.
Labour & grievance	~25 new skilled/semi-skilled jobs during operation.	Positive employment opportunities, but risk of limited local benefit if training not provided. Fragmented worker grievance channels.	Lack of unified grievance mechanism/register; no local hiring/skills development targets.

K3 Operation

Operation of the K3 facility will generate additional emissions, noise, odour, and increased traffic movements. The HIA shows that these impacts are not significant and will not breach limit values. Sensitivity is elevated due to nearby residents and vulnerable groups, including the Oaza Homeless Shelter. Magnitude is long-term but localised and manageable.

Mitigation: Enforcement of operational EIA commitments (noise abatement, traffic management, emission controls) and ongoing community engagement through the SEP. Establishing a structured grievance register would ensure timely resolution of complaints.

Residual significance: Low with effective monitoring and grievance follow-up.

OHTL and Substation – Community and Agricultural Land Users

During operation, potential impacts include land use restrictions under the transmission corridor, safety risks from maintenance activities, and visual impacts of towers and lines. Farmers may face permanent limitations on construction within easement zones. Sensitivity is Moderate, given economic reliance on agricultural land. Magnitude is permanent but limited in scope. Electromagnetic frequency (EMF) considerations are addressed below.

Mitigation: clear communication of easement restrictions;; signage and safety awareness campaigns in affected communities.

Residual significance: Low.

HWP Pipeline –Agricultural Users

In the operational phase, the pipeline poses restrictions on land use along the right-of-way. No construction is permitted on the underground pipeline Magnitude is permanent but of limited extent; sensitivity is High for vulnerable groups, but are not expected to be impacted.

Mitigation: continued monitoring of impacts through SEP engagement; ensuring access is maintained for affected land users.



Residual significance: Low to Moderate, depending on adequacy of engagement and support.

Transversal (aka crossing) Issues - Community Health and Safety

Operation of the facilities introduces ongoing risks related to traffic safety, hazardous material management, and electromagnetic fields (OHTL). The HIA (undertaken as part of the EIA) concluded no health risks are anticipated, and EMF levels are within international guidelines. Magnitude is low and reversible, but sensitivity remains Moderate given community concerns.

Mitigation: adoption of a Community Health and Safety Management Plan, monitoring of hazardous materials handling, traffic safety measures, and continued public disclosure on EMF safety standards.

Residual significance: Low.

2.6.3 SOCIAL IMPACT ASSESSMENT MITIGATION MEASURES

This social impact assessment has identified the following mitigation measures to be implemented by KOSIT during this Project:

Construction Phase

- K3 Plant – Local Neighbours
 - Implement EIA measures, including: dust suppression; prohibition of night works, or advanced warning of night works if required; equipment maintenance to limit nuisances; and traffic control with appropriate signage.
 - Undertake proactive engagement with affected neighbours (especially the Oaza homeless shelter).
 - Implement the SEP, with its tailored communication and grievance support.
- HWP Pipeline – Continued Avoidance of Displacement
 - During the finalisation of the HWP alignment and easement agreement negotiations. continue to ensure that settlements are not physically or economically impacted and forced easement agreements are not required.
 - Confirm these commitments through implementation of the SEP.
 - Ensure early disclosure and grievance access.
- 3. Agricultural Land Users (HWP, OHTL, Substation)
 - Schedule works to allow harvesting before construction.

Operation Phase

- K3 Facility Operation
 - Enforce operational EIA commitments: noise abatement; traffic management; and emission controls.
 - Ongoing community engagement via SEP.
 - Establish structured grievance register.
- OHTL & Substation – Agricultural Land Users



- Provide clear communication of easement restrictions.
- Install safety signage and awareness campaigns.
- Transversal Issues – Community Health and Safety
 - Adopt a Community Health and Safety Management Plan.
 - Monitor hazardous materials handling.
 - Implement traffic safety measures.
 - Continue public disclosure on safety standards.
 - Implement emission controls.
 - Ongoing community engagement via SEP.
 - Establish structured grievance register.

The mitigation measures listed above will be incorporated into the Project's ESAP and relevant management plans in order to ensure appropriate implementation and assignment of responsibility.

3 LANDSCAPE AND VISUAL SCREENING

3.1 EIA FINDINGS

The K3 site will be located on the existing KOSIT site, next to K1 and K2. The K3 EIA states that the change of the proposed activity will affect only the existing operational area of the proponent “by the construction of buildings of an industrial and warehouse nature”.

The OHTL EIA states that the route is over flat terrain and the dominant features of the surrounding landscape is the church of Šebastovce, “linear greenery”, and the panorama of the city of Košice to the north. The EIA then states that the OHTL will “not represent significant elements that would affect the landscape character. Overall, we consider the impact of the proposed activity on the landscape and on the landscape structure to be negative and negligible.”

Given the height of the new stack (68m), the OHTL, the construction of a substation on agricultural land, and the flat terrain surrounding these sites, further analysis regarding landscape and visual impacts is presented below. This was provided in order to further assess with significant visual impacts will be created by the K3 site (primarily the stack) and the OHTL. Note that the new stack will be smaller in height than the existing stack, which is 105m high.

As the overground HWP will follow existing utility routes in primarily industrial areas, largely following the railway line heading north into Košice, and as is not a substantial construction that would impact landscape character, it has been discounted from further assessment. Note that the existing pipeline providing hot water from the K1/K2 site and the existing connection to the district heating network cannot be used as they do not have sufficient capacity for the new K3 site.

3.2 K3 AND SUBSTATION

The villages of Kokšov-Bakša, Valaliky and the settlement of Krásna within the city of Košice are the three closest settlements to the current KOSIT WtE site that will include the K3 site and neighbouring substation. The viewpoints of the areas of these settlements closest to the K3 site are presented below, as well as viewpoints from other key areas identified around the Project’s Area of Influence.

Kokšov-Bakša

As presented in the Project Description, Kokšov-Bakša is located to the south of the K3 site. The north of Kokšov-Bakša is closest to the K3 site. Housing in the middle of the settlement are blocked visually from the site due to trees, the highway under construction, and other housing. This is shown in **Figure 3-1** below from Záhrada Bernátovce road, with the existing stack outlined in a red circle:

Figure 3-1 - View of K3 site from northern boundary of Kokšov-Bakša, on Záhrada Bernátovce, facing north (0.6km from stack)



The construction of the new highway will dominate the visual appearance of the north of the village, whereas the new K3 stack neighbouring the existing stack will not be as prominent in this area.

The K3 stack will be more visible from the properties on the eastern and western boundaries of Kokšov-Bakša. These are presented in **Figures 3-2** and **3-3** below, the existing stack outlined in a red circle:

Figure 3-2 - View of existing WtE stack from the west of Kokšov-Bakša, facing north (0.95km from stack)



Figure 3-3 - View of existing WtE stack from the east of Kokšov-Bakša, facing northwest (1.15km from stack)



From these vantage points, the K3 stack will be visible to a small number of houses. However, views of the stack from the houses are often blocked by trees. These settlements are also used to the stack being part of the character of the landscape, with some residents being employed by KOSIT at the site.

Regarding other sensitive receptors in the village to visual impact, Kokšov-Bakša Cemetery is in the north of the settlement, however the stack is not overtly visible from the cemetery due to surrounding trees and the R2 expressway being constructed to the immediate north.

Overall, the visual impact of the new stack in Kokšov-Bakša is considered as negligible. The new K3 site will not visually impact the views of any sensitive receptors, such as housing or cemeteries, and the location of the stack next to the existing site will avoid any new impacts on landscape. Further, the site is located in an area with a significant amount of existing infrastructure impacting the local landscape, such as the new R2 expressway, existing OHTLs and railway.

Valaliky

As presented in the Project Description, Valaliky is located to the southwest of the K3 site. The north / north-east of Valaliky is closest to the K3 site, with the closest residential area situated 710m from the K3 site. Housing in the middle of the settlement do not have a clear view of the site due to the embankment of the neighbouring railway and other housing. However, the site is visible on the eastern boundary of the village, with the existing stack outlined in a red circle:

Figure 3-4 - View from the north-east section of Valaliky village on Podlesná, facing north to the existing WtE site (1.35km from site)



As presented in **Figure 3-4** above, the existing WtE site is primarily in view for residents in the north-east of Valaliky Village. This area is 1.2km from the proposed K3 stack, which will be located next to the existing K1/2 stack (circled in red). The existing site is visible, however is partially obscured by the railway embankment to the north and its overhead cables.

The K3 site will also be visible from an unnamed road leading from the north-east of Valaliky along the north of the settlement, leading to the K3 site. There are no settlements along this road, which is primarily used by KOSIT trucks to access the site.

Figure 3-5 - View from north-west Valaliky, on an unnamed road travelling east to the K3 site, primarily used by KOSIT traffic (2.15km from stack).



Overall, negligible landscape and visual impacts will be experienced in Valaliky. The new K3 site will not visually impact the views of views of any sensitive receptors, and the location of the stack next to the existing site will avoid any new impacts on landscape. Further, the site is located in an area with a significant amount of existing infrastructure impacting the local landscape, such as the new R2 expressway (seen in **Figure 3-5** above), existing OHTLs and a railway.

Krásna

Krásna is located to the east of the K3 site and is a settlement within the city limits of Košice. The district immediately borders the existing K1 and K2 site to the north east. Housing on the western boundary of Krásna is closest to the K3 site. The majority of housing in the settlement is blocked visually from the site due to wooded areas between Krásna and the site. This woodland is surrounding the nearby Štrkovisko (Gravel Pit) Lake and River Hornád, which also shield local walks along these water bodies from views of the WtE stack.

However, the existing stack site is visible on the western boundary of the settlements. Two instances of this are presented in **Figures 3-6** and **3-7** below, with the existing stack outlined in a red circle:

Figure 3-6 - Facing west from Alexandra Dubčeka on the southern boundary of Krásna (0.95km from stack).



Figure 3-7 - Newly built properties on Valalická facing the stack to the south (1.3km from stack).



Kaštieľ Krásna (Château de Krásna) is also located in the Krásna municipal district, 1.6km from the proposed K3 site, and represents a sensitive receptor. The Château is a Rococo mansion from 1773 with a Classicist arcade from the 19th century, a Classicist mansion from the 19th century, and a

Baroque-Classical mansion from 1780. The mansion in Krásná is currently used to organize cultural and social events for given target groups, exhibitions of artwork, handicrafts, historical artifacts, and organizing social and charitable events. The Château is located in the centre of Krásná and views of this protected site will not be impacted by the K3 site.

Overall, negligible landscape and visual impacts will be experienced in Krásná. The new K3 site will not visually impact the views of any sensitive receptors and/or housing, and the location of the stack next to the existing site will avoid any new impacts on landscape. Woodland provides a natural barrier to the site and only minimal properties have a view of the existing stack, which is largely obscured.

R2 Road Users

Road users are considered visual receptors in a visual impact assessment because the changes in views experienced by people traveling on roads can affect their visual amenity and enjoyment of the landscape. Their susceptibility to visual change is assessed based on the extent to which their attention is focused on the views and their activity (e.g., commuting vs. scenic tourism).

Figure 2-2 and **Appendix II** provide the location of the R2 expressway currently under construction. The closest the R2 will run to the site will be approximately 0.45km from the stack. They will have an extremely similar view to **Figure 3-1** as this will be where R2 intersects with the existing Záhřada Bernátovce road to the north of Kokšov-Bakša. Overall, there will be no significant impact on the visual amenity of future R2 road users as the K3 site is located immediately next to the existing stack and will not impact views used for the likes of scenic tourism or scenic viewpoints. The area where the R2 is passing through close to the site is agricultural land with residential and industrial backgrounds. Also considering the 0.45km buffer from the site, no visual impact is anticipated for road users.

3.3 OHTL

The route of the OHTL is presented in **Figure 3-8** below. As shown, the closest location of the OHTL to a settlement is in eastern Šebastovce, circled in red. The view of this connection point from the closest housing is presented in **Figure 3-8** below:

Figure 3-8 - Location of the closest section of the proposed OHTL to a settlement – eastern Šebastovce.



Figure 3-9 - View of the connecting point from the closest point in Šebastovce on Šebastovská road, facing east.



As seen in **Figure 3-9**, an existing OHTL follows Šebastovská road, and the new OHTL will lead away from the settlement to the east. Further, the location of the new OHTL, crossing the agricultural fields, will not impact the views from other settlements, as it is not located close to any

housing, and will not obstruct any views to protected sites or sites of significant cultural heritage. This is shown in **Figure 3-10**, taken from the EIA document:

Figure 3-10 - Location of the OHTL route (source: EIA).



Figure 3-11 - View of the affected area from the west of Šebastovce village (source: EIA).



Figure 3-12 - View of the affected area from the east of the substation, facing west (source: EIA).



Further to the above, the area surrounding villages in this area contains other OHTLs and infrastructure, such as the new R2 expressway under construction, roads and railways. The OHTL will therefore not cause any significant new visual and landscape impacts. Overall, the landscape and visual impacts of the OHTL are considered negligible.

3.4 CONCLUSION

After further analysis to add detail to the existing EIA reports, there are no significant anticipated impacts from the Project activities on landscape and visual during the construction phase and operation phase.

After assessing a representative range of viewpoints above that are at different distances and directions from the Project, the Project will have negligible impacts on visual and landscape character of the Project affected area. This is due to the existing infrastructure in the area (including the K1/2 stack), woodland surrounding the plant to the east, the railway embankment to the south of the site between the site and villages, and the construction of the highway also to the south of the site.

4 GHG EMISSIONS

The already disclosed EIA provides a summary of the GHG emissions associated with the K3 line, measured against the counterfactual case where no K3 line is available.

In the baseline (without K3 line) case, the 100,000 tonnes of MSW is assumed to be landfilled resulting in the production of landfill gas in its subsequent decomposition. Associated GHG emissions are assessed as 88,000 tCO₂e per year.

In terms of operation of the K3 line the associated GHG emissions are assessed as per Table 4.1. These are as detailed in the ESIA.

Table 4-1 - GHG Emissions Inventory

Scope	Activity	Activity Data	GHG Emissions (tCO ₂ e)
Scope 1	Input feedstock	100,000 tonnes/yr	38,200
	Auxiliary fuel (natural gas)	200,000 m ³ /yr	422
Scope 1 (Total)			38,622
Scope 2	Electricity	Parasitic load from K3 energy generation	0
Scope 2 (Total)			0
Scope 3	Exported electricity generation	49,000 MWh/yr	-8,281
	Exported heat generation	53,000 MWh/yr	-13,515
	Recovered iron from slag recycling	1,040 tonnes/yr	-1,330
Scope 3 (Total)			-23,126

Details calculated in line with the GHG Protocol for Project Accounting (WRI/WBCSD).

Combined Scope 1 and 2 GHG emissions are assessed as 38,622 tCO₂e/yr. The main contributors are the combustion of input feedstock and natural gas. Power needs for operation of the K3 line are met via power generation from the steam turbine.

Net benefits of the energy generation from the K3 line are reported as Scope 3 emissions (use of sold product). The benefit of electricity generation supplied to the national grid, displacing fossil fuel generated electricity, is assessed as 8,281 tCO₂e/yr. The benefit of heat supply to the local heat network, displacing coal-fired heat generation, is assessed as 13,515 tCO₂e/yr.

A further benefit in operation is the recovery of iron from slag recycling, avoiding primary production elsewhere. This is assessed as providing a further benefit of 1,330 tCO₂e/yr.

Total net benefits of Scope 3 GHG emissions are assessed as -23,126 tCO₂e/yr.



Net GHG emissions are determined as:

- Net GHG Emissions = Scope 1 + Scope 2 + Scope 3
- Net GHG Emissions = 38,622 + 0 – 23,126 = 15,496 tCO₂e/yr

In comparing the baseline (without development) with the K3 line operation there is a net reduction in GHG emissions of 72,504 tCO₂e/yr.

It is recommended that environmental reporting protocols as applied to the existing K1 and K2 lines are applied in the case of any future K3 line. This will ensure robust ongoing reporting of operational impacts in respect of GHG emissions.

5 AIR EMISSION DISPERSION MODELLING

5.1 CURRENT DISPERSION MODEL STUDY AND FUTURE COMMITMENTS

5.1.1 CURRENT DISPERSION MODEL STUDY AND FUTURE COMMITMENTS

As part of the EIA an air quality dispersion modelling study has been conducted with and without K3 to assess the impacts. The study using the dispersion and impact of air quality (MODIM) model has demonstrated that there will be effective dispersion to meet the air quality standards. The modelling study refers to a study area of 8km by 8km with 7 specific receptors of the closest surrounding villages and urban areas. Two of the receptors are near the river which is one of the two Natura 2000 sites (Dolný tok Hornádu SAC) identified but not Košická kotlina which is some 1.2 km from the site. However, the report presents isopleths over the study area. The report concludes that the proposed stack heights will be sufficient to ensure sufficient dispersion of pollutants.

There is a commitment by Kosit that once the Engineering, Procurement, and Construction (EPC) contractor is selected and final design and equipment specific parameters relating to emissions (e.g. temperature profile, efflux velocity) are verified, a revised air quality dispersion modelling study is undertaken. The revised study will ensure that the assessment adequately covers impacts at nearby Natura 2000 sites, in relation to dry deposition and acid gas deposition and in relation to ecological air quality standards.

As such based on the ESDD findings, an ESAP action was formulated as follows:

Undertake a revised dispersion modelling study in order to update the Project's air quality analysis contained in the K3 EIA. This updated study and analysis must ensure that the assessment adequately covers impacts at nearby Natura 2000 sites, in relation to dry deposition and acid gas deposition and in relation to ecological air quality standards. It must also use the actual specifications of the plant when designs are more advanced, using the plant's specific emissions parameters (e.g. flow rates, temperature etc).

The updated AQ study must also be used to calculate an optimised stack height, using actual emissions parameters, in line with BAT requirements.

5.2 FURTHER ANALYSIS OF IMPACTS ON ECOLOGICAL RECEPTORS

With regard to assessment at ecological receptors, the relevant EU air quality emission concentration limits² for the protection of vegetation and natural ecosystems are:

Table 5-1 - EU air quality emission concentration limits

Pollutant	Averaging Period	Critical Level
NOX	Annual mean	30 µg/m ³

² DIRECTIVE (EU) 2024/2881 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2024 on ambient air quality and cleaner air for Europe (recast)

Pollutant	Averaging Period	Critical Level
	24-hour mean	75 µg/m ³
SO ₂	Calendar year and winter (1 October to 31 March)	20 µg/m ³

The critical level values for different habitats have also been obtained from online academic resources³ and are presented below:

Table 5-2 - Critical level values for different habitats

Pollutant	Receptor	Period	Critical Level
SO _x	Neutral grassland	Annual mean	20 µg/m ³
	Deciduous woodland	Annual mean	20 µg/m ³
NH ₃	Deciduous woodland	Annual mean	3 µg/m ³ (range 2-4)
	Neutral grassland	Annual mean	3 µg/m ³ (range 2-4)
	Wetlands (fens)	Annual mean	3 µg/m ³ (range 2-4)

Košická Kotlina SPA is some 1.2 km from the K3 site. Based on the results of the ground level concentrations at a distance of 1.2 km (grid based) from the site in the current air dispersion modelling report, for the selected pollutant of NO_x, the highest annual mean concentration is 0.1506 µg/m³ (assumed NO_x expressed as NO₂). Therefore, the process contribution (PC) of 0.1506 µg/m³ is 0.5 % of 30 µg/m³ which can be considered insignificant as the PC is less than 1% of long term environmental standard. It is therefore unlikely that there will be significant impacts at this designated habitat site.

Dolný tok Hornádu SAC is approximately 350m from the K3 site and is an aquatic receptor. Two (RB2 and RB3) of 7 specific receptors modelled were at the river in the current air dispersion modelling report. Based on the results of the ground level concentrations at these two receptors, the highest annual mean NO₂ concentration of the two results is 0.1516 µg/m³. Therefore, the PC is also 0.5 % of 30 µg/m³ at this protected site which can be considered insignificant. However, the revised modelling study will assess all pollutants against relevant critical levels at designated habitats. Limited critical level/load information exists for such habitats – the exception being for NO_x, for which 10-15 kg N/ha/year is the critical load (Refer to table below on critical loads). It is considered unlikely that other pollutants will result in significant adverse effects to this site due to the dispersal and mixing of pollutants that will occur within the river; however, this will need to be validated through updated modelling.

While the vast majority of habitats across air quality modelling area (up to 4km from the site) and outside of protected sites are modified and of low ecological value, there are pockets of more

³ Aggregated at www.apis.ac.uk

sensitive biodiversity, mainly comprising deciduous woodland, and habitats associated with watercourses (rivers, riparian woodland and wetlands). There aren't considered to be increases in the levels of these pollutants as a result of the project that will result in significant adverse effects to these habitats; however, the updated dispersion modelling will need to validate this.

In addition, there are also critical loads (deposition based limits expressed in kg/ha/yr as opposed to concentration based limits above), and an example of this for NO_x is presented below (also derived from academic resources³). The revised dispersion modelling to be undertaken will require further assessment against these limits to confirm that the pollutants can be deposited to land or water at levels which are below these limits for which there are no significant harmful effects.

Table 5-3 - Dispersion modelling limit values

Pollutant	Receptor	Period	Critical Load
NO _x	Deciduous woodland	Annual load	10-15 kg N/ha/year
	Neutral grassland	Annual load	10-20 kg N/ha/year
	Rivers/watercourses	Annual load	10-15 kg N/ha/year
	Wetlands (fens)	Annual load	15-25 kg N/ha/year

The revised air quality dispersion modelling study to be undertaken will confirm / validate that there are no harmful effects at the sensitive habitats, including protected areas.

5.3 SCOPE OF REVISED STUDY

The revised air quality dispersion modelling study that is committed to be undertaken will update the MODIM model and also use an internationally recognised Gaussian Model, such as Atmospheric dispersion modelling system (ADMS) or AERMOD modelling system to provide an additional conservative assessment, or alternative modelling software packages will be justified. Final design and other data that will be used include:

- Efflux velocity / volumetric flow rate;
- Temperature, pressure, oxygen and water content at point of release;
- Stack height (which can be optimised through the modelling study) based on final design data for the K3 plant. The proposed stack height from the existing model will be confirmed, or amended based on specific K3 plant design data;
- Modelling for all parameters to be included as detailed in BAT Conclusions at the BAT- AELs which are reported will be met. This will be for both periodic and continuous monitoring parameters;
- Modelling to be carried at maximum waste throughput capacity; and
- Meteorological data (preferably over a 5 year period). Currently modelled over a period of 3 years (2018-2020).

Modelling to include all emission point sources (K1, K2 and K3) and other point sources site (e.g. exhaust vent from new slag handling and processing facility) and will cover a number of scenarios such as:

- Normal operating conditions;

- Abnormal operating conditions. Scenarios to be identified e.g.
 - Startup of any / all WtE plants;
 - Shut down of any / all WtE plants;
 - Use of backup diesel generator when power failure;
 - Emergency exhaust from new waste storage bin when full K3 shut down; and
 - Operation of the gas boiler HOVAL MAX 3 used for occasional heating of some operating areas.

Background levels of concentrations to be obtained for air quality monitoring stations including new stations that are planned to be installed. It was reported that the authorities were planning to install more fixed and mobile Air Quality Monitoring Stations.

The assessment of impacts will be undertaken at human receptors and ecological receptors such as Natura 2000 sites i.e. Dolný tok Hornádu Special Area of Conservation (SAC) and Košická kotlina Special Protection Area (SPA) using defined critical loads (i.e. maximum pollutant deposition a particular ecosystem can tolerate without experiencing long-term harmful effects) for all relevant pollutants at each ecological receptor.

Dry and wet (acid rain) deposition e.g. for SO₂, NO_x and NH₃ will also be modelled.

6 BIODIVERSITY

6.1 EIA FINDINGS

The K3 site will be located on the existing KOSIT site, next to K1 and K2. The brownfield and heavily disturbed nature of the site means that biodiversity on the site is limited, while the surrounding area is also considered to have a diminished biodiversity due to the mainly agricultural land use. The K3 EIA states that *'Due to its nature, the area of interest is associated only with the occurrence of animal communities of anthropogenic character represented by species tied to the present technical equipment and buildings. The characteristic species are thus adaptable and widespread species...'*. The EIA does not identify any impacts or concerns regarding the HWP. Similarly, the EIA content for the OHTL states *'We do not foresee the presence of protected species of animals and plants or rare biotopes in these areas.'* And *'We consider the impact of the proposed activity on fauna, flora and their habitats to be negative and insignificant...'* (this means that the impact will be 'negative' (as opposed to a positive impact) in categorisation but 'insignificant' (negligible) in magnitude of impact).

The EIA identifies protected areas outside of the project site, with the closest example stated as being Košická kotlina Special Protection Area (SPA) (site ID: SKCHVU009) designated for its importance to birds under the EU Birds Directive and located approximately 2km south-east of the project site. However, the EIA omits the closest protected area - Lower Hornád River Special Area of Conservation (SAC) (site ID: SKUEV4010), which is designated under the EU Habitats Directive and is located approximately 350m to the east of the project site. The EIA concludes that there will be no air quality, water quality or acoustic impacts to any protected area.

The following sections summarise the EIA (and ESDD) findings to provide additional assessment information, conclusions and recommended next steps.

6.2 PROTECTED AREAS

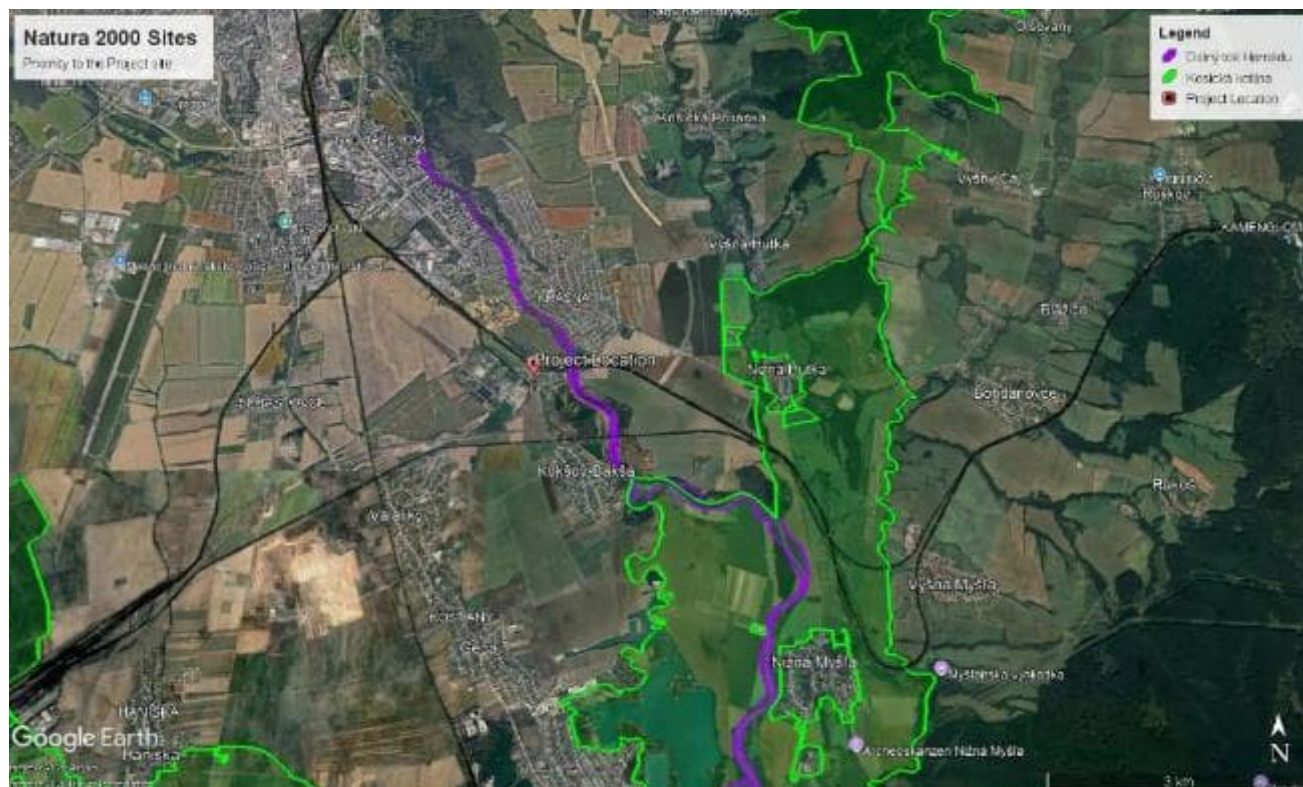
Two protected areas have been identified within a 2km⁴ search area of the K3 site: Dolný tok Hornádu Special Area of Conservation (SAC⁵), located approximately 350m east of the Project at its closest point; and Košická Kotlina Special Protection Area (SPA⁶), located approximately 1.2km south/south-east of the Project at its closest point – both sites are Natura 2000 sites and protected within Slovak law under Act No. 543/2002 Coll. On Nature and Landscape Protection. Additionally, a single internationally recognised area: Košice Valley Key Biodiversity Area (KBA), which broadly aligns with the Košická Kotlina SPA. No impacts are predicted to these areas, and confirmation of this and compliance with EU Habitats Directive was provided through a formal opinion from the Ministry of Environment with regards Košická Kotlina SPA, with no Appropriate Assessment necessary. The Dolný tok Hornádu SAC is not mentioned in any documents.

⁴ a precautionary Area of Influence (Aol) for impacts to designated sites

⁵ Designated under the EU Habitats Directive (Directive 92/43/EEC) due to their importance for conservation habitats and species of European perspective, listed under Annexes I and II of the Directive, respectively

⁶ Designated under the EU Birds Directive (Directive 2009/147/EC) due to their importance to birds listed on Annex 1 of this directive, or regularly occurring migratory species.

Figure 6-1 - Project proximity to Dolný tok Hornádu SAC (purple area) and Košická Kotlina SPA (green area)⁷



Dolný tok Hornádu SAC is designated for its importance to eight fish species listed on Annex II of the EU Habitats Directive:

- Carpathian barbel *Barbus carpathicus*
- Spined loach *Cobitis taenia*
- European bullhead *Cottus gobio*
- European bitterling *Rhodeus sericeus amarus*
- Kessler's gudgeon *Romanogobio kesslerii*
- Danubian longbarbel gudgeon *Romanogobio uranoscopus*
- Danube whitefin gudgeon *Romanogobio vladykovi*
- Balcan spined loach *Sabanejewia balcanica*

The potential project effect pathways to this site comprise discharge to the water environment and air quality impacts during operation of the project. The latter is not considered an issue due to the high critical load for rivers for nutrient nitrogen⁸ (as derived from data presented by the Centre for

⁷ Snippet taken from Natura 2000 – General Viewer:

<https://www.arcgis.com/apps/mapviewer/index.html?webmap=c79e2f4856f54ed7a15ff7abc56acc1b>

⁸ Acknowledging the increased nuance of quantifying critical loads for the water environment, where no such published data exists. The presented represents a crude estimate.

Ecology and Hydrology⁹). A range of between 1-15 kg N/ha/year is presented, which far exceeds the modelled values for Nitrogen.

With regards potential water quality impacts deriving from wastewater discharge, the K3 site will operate a closed water system and any waste water leaving the site will run straight to the neighbouring wastewater treatment plant. This wastewater is cleaned and discharged into the River Hornád in line with EU wastewater regulations.

The other designation being considered here - Košická Kotlina SPA (and the spatially similar Košice Valley KBA) is designated for the following bird species:

- Eastern imperial eagle *Aquila heliaca*
- Black Stork *Ciconia ciconia*
- Quail *Coturnix coturnix*
- Syrian woodpecker *Dendrocopus syriacus*
- Saker falcon *Falco cherrug*
- Ural owl *Strix uralensis*

This site is situated at a distance of above 1km where air quality impacts are considered to be negligible in terms of magnitude, together with a consideration of the critical loads for the prevailing habitats within this protected area. The habitats here are a mosaic of deciduous woodland, grassland/pasture, agricultural fields and riparian woodland, none of which have a critical load for the main/relevant pollutants which will be reached by the modelled emissions.

6.2.1.1 Conclusions

No significant effects are predicted for any protected site/internationally recognised area within the anticipated Aol for the project. Given the lack of formal consideration of the Dolný tok Hornádu SAC within the EIA, it will be necessary for information to be presented to allow the Ministry of the Environment to provide a formal opinion with regards to obligations under the EU Habitats Directive (as has been provided in relation to Košická Kotlina SPA). This should be further informed by updated (and validatory) dispersion modelling, as recommended within **Section 5**.

6.3 HABITATS, FLORA AND FAUNA

The Project is located within the existing WtE facility and is therefore heavily modified. The surrounding area has also been subject to ongoing modification, primarily through conversion of mainly forest habitats to intensive agricultural land use. Pockets of more natural habitat have been identified, including wetland and remnant woodland stands. These areas have been designated under the Regional Systems of Ecological Stability ('ÚSES') given the important role they play in maintaining ecological connectivity across the country.

The Project's 'Evaluation Report'¹⁰, describes a floral and faunal assemblage on the Project site that is lacking in diversity, with no species of elevated conservation concern (i.e. listed on an Annex of

⁹ Accessed at: [UK Critical Loads and Dynamic Modelling | CLDM](#)

¹⁰ ZEVO Košice. 2022. Modernisation and ensuring operational stability waste-to-energy plants – Evaluation Report.

the Habitats or Birds Directives, Resolution 6 of the Bern Convention or on the IUCN Red List). This is reflective of the heavily degraded nature of the Project site. The wider area has locally more diverse flora and fauna, most notably along the corridor of the River Hornád (approximately 500m east), and the Krásna Gravel Pit (approximately 350m east), for which it is stated that protected and rare species may occur sporadically. This is corroborated by eDNA findings presented within the Project's environmental audit report¹¹, which concluded that of the various species identified, there was one listed on the IUCN Red List as Endangered (EN) – thick-shelled river mussel *Unio crassus*.

A range of common and widespread bird species are considered to potentially use the wider area for feeding, resting and nesting; this includes species listed on Annex I of the EU Birds Directive, such as peregrine falcon *Falco peregrinus*, although there is no indication that the project's Aol includes any habitat/features of increased importance to these species given the prevailing baseline of disturbance and lack of known breeding territories here¹². There are no known congregations of migratory birds, and no records of waterbodies in close proximity to the Project site (and associated HWP, OHTL) being of importance to such populations (based on a review of online resources such as eBird¹³).

One species group for which detail is particularly lacking is bats within the EIAs, and so further consideration of this group is provided here. Bats readily inhabit/forage around degraded habitats, especially if there is a mosaic of habitat types that includes more natural areas (i.e., as the case here, with the river and lake habitats present). Bats also make use of man-made structures as well as trees for roosting, both of which are present on, and adjacent to, the Project site; indeed bats are known to roost in buildings in in Kosice¹⁴. In addition, there are buildings on the Project site which may have bat roost potential, although nothing to suggest that any populations of importance beyond the site/local level are supported and therefore potentially at risk of impacts from the project.

A review of potential Critical Habitat/PBF has been undertaken to inform this report. In total, 23 species listed as either CR or EN were screened as having ranges that overlap with the Project Aol; however, the majority of these occupy habitats that are not present within the assumed Project Aol, such as flush communities, heathland/grassland mosaics, and old growth forest at higher altitudes. Additionally, regionally extinct species (such as European mink *Mustela lutreola*) are also in this number. This exercise has identified several IUCN Red List Critically Endangered (CR) and Endangered (EN) species that will potentially be present within a Project Aol, as follows:

- European eel *Anquilla anguilla* (CR)^{+ *}
- European ground squirrel *Spermophilus citellus* (EN)^{+ *}
- Saker falcon *Falco cherrug* (EN)[^]

¹¹ Reported in Gensity. 2025. Environmental audit of biodiversity for the investment project: Extension of the treatment of selected types of waste at the waste-to-energy plant (Zevo) in Košice.

¹² As corroborated by amateur birding reports from the region which have identified the closest potential breeding location as c. 10k north of the Project site.

¹³ Accessed at www.ebrd.org

¹⁴ Korytár, L., Ondrejková, A., Drážovská, M., Zemanová, S. and Prokeš, M. 2022. Serological survey of lyssaviruses in synanthropic bats and human exposure to bats in Slovakia. Ann Agric Environ Med. 2022; 29(1): 44–49. doi: 10.26444/aaem/146208

- Thick-shelled river mussel (EN)⁺ * (also confirmed present through eDNA survey)
- Depressed river mussel *Pseudanodonta complanata*
- Plaisance helleborine *Epipactis placentina*
- Sterlet *Acipenser ruthensis*

None of the above species are considered likely to have populations within the Aol that would trigger Critical Habitat (i.e. greater than 0.5% of the global population), although by virtue of their CR/EN status, all would qualify as PBF. Additionally, the top four of the above are listed on Annex II (marked with ⁺) or IV (marked with ^{*}) of the Habitats Directive, or Annex I of the EU Birds Directive (marked with [^]). Annex IV is a trigger for classification as Critical Habitat under PR6, and so these animals' supporting habitat would be classified as such. However, it should be recognised that material risks to these animals (if present) is considered to be negligible, given the very limited impacts outside of the Project site, where these species are potentially found, especially to the aquatic environment (which accounts for four of these species), together with prevailing levels of disturbance/anthropogenic influence across the Aol, reducing the likelihood of presence of the remaining three species. In order to verify this conclusion, a suitably qualified local ecologist (or ecologist with experience of local biodiversity) should complete a pre-construction walkover of all areas outside of the Project site where construction work will be required. This should be undertaken, once designs of the OHTL and HWP are finalised to fully ascertain any presence/likely absence so that an appropriately robust mitigation strategy can be produced that delivers compliance with PR6.

In addition to the above, any bats present will be automatically considered at least PBF, with some qualifying as Critical Habitat triggers due to their occurrence on Annex IV of the EU Habitats Directive and Resolution 6 of the Bern Convention. The Project site overlaps with the ranges of 23 species of bats, and although some of these will likely be absent due to specific habitat requirements (e.g. underground cave systems, old growth forests, etc.), it is considered likely that species such as pipistrelle *Pipistrellus* sp., Leisler's bat *Nyctalus leisleri* and Daubenton's bat *Myotis daubentonii* among others, may be present across the Aol albeit not likely to a level of significance outside of a 'site' or 'local' geographic level. There isn't considered to be any significant risk to these species (at a population level), due to the limited nature of the impacts identified; however, this should be verified through a pre-construction survey of suitable roost features once designs for the OHTL and HWP are finalised but also including any suitable buildings on the Project site (see Figure 6-2). The same also applies to nesting birds (all of which are protected under EU Birds Directive). This should comprise pre-works checks of suitable habitat/features for bat roosts (at any time of the year, habitat/species dependent), as well as nesting birds during March-August inclusive. A suitably qualified ecologist will be required to advise on the exact scope and methods for this work. Following this an appropriately robust mitigation strategy will be produced that delivers compliance with relevant legislation (and PR6).

Figure 6-2 - Abandoned building on the Project site



The district heating pipeline (HWP) will follow the routes of existing similar infrastructure and so additional significant impacts beyond this current baseline are not expected. The overhead line (OHTL) is also situated within a landscape containing existing grid infrastructure, although it is a new feature in this landscape and so poses a potential collision and electrocution risk to birds; however, given the lack of important concentrations of migratory birds or known important breeding bird territories, it isn't considered likely that significant impacts will materialise. To verify this conclusion, and once finalised alignments/designs for OHTL have been established it will be necessary for a suitably qualified ornithologist to be consulted regarding the requirement for any bird divertors and insulator design that prevents electrocution of birds to be installed prior to energising.

The direct risks to the Project site itself and the majority of the wider area are considered to be negligible, given the lack of sensitive or biodiversity across these areas. This conclusion is supported by the biodiversity work that has been undertaken in support of the Project, which comprised desk study and a suite of environmental DNA (eDNA) surveys across four representative sampling sites in June 2023 (designed to provide an inventory of biodiversity in proximity to the site in both terrestrial and aquatic habitats). A total of 703 taxa were recorded from the eDNA analysis, over 600 of which were invertebrates, and no species of increased conservation value were identified. The results of the eDNA study informed a conclusion that *'The implementation of the proposed activity, according to the assessment of the fauna of the affected area, will not endanger the state of local biodiversity, as no significant occurrence of rarer species is expected there'*. The sampling locations are illustrated below.

Figure 6-3 – eDNA sampling locations



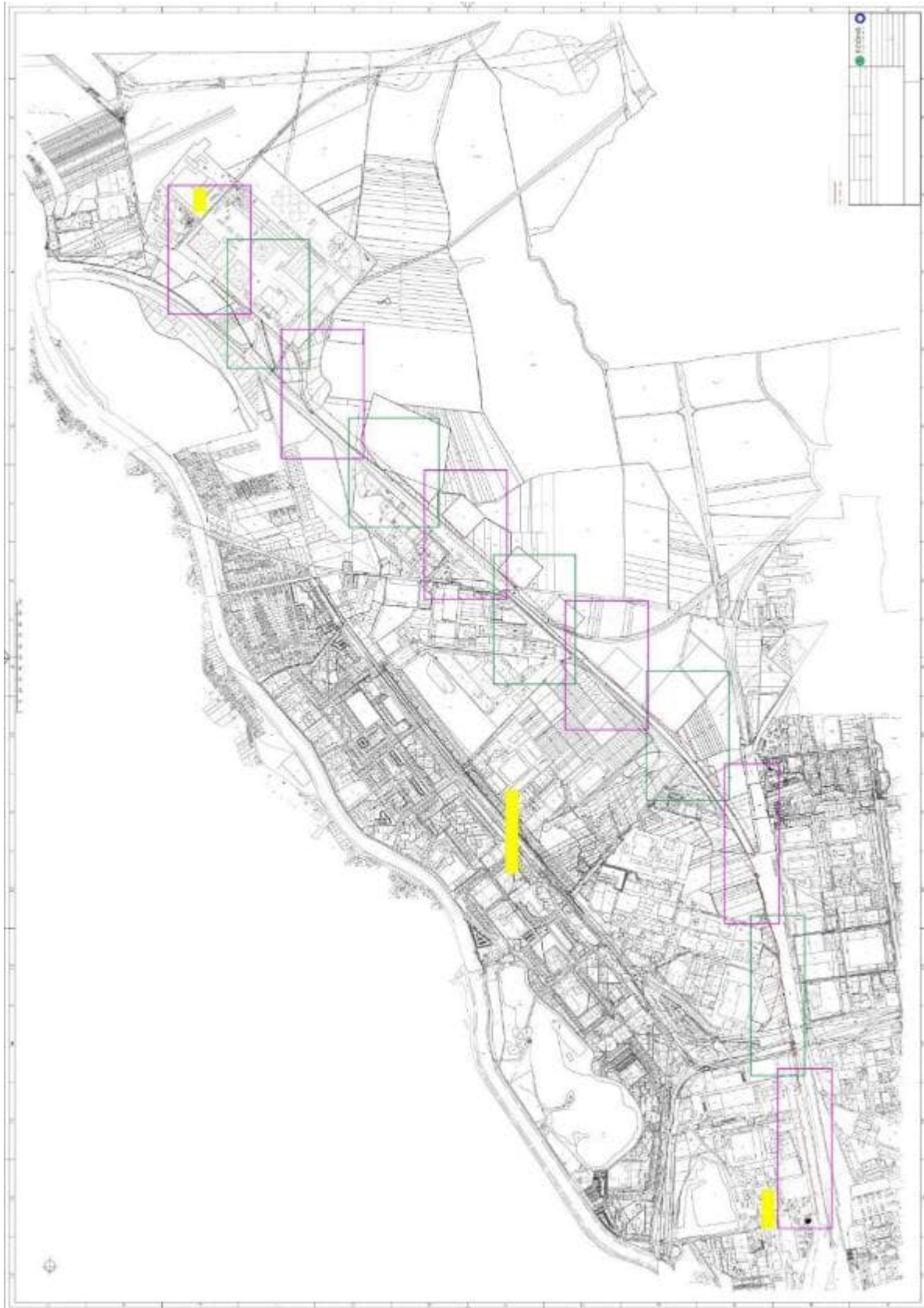
The main potential risk identified relates to effect pathways outside the Project site, such as air quality, acoustic disturbance and hydrological impacts, and the current assessment concludes that any increases across the receiving environmental (including those more sensitive habitats identified, such as ÚSES) will not be significant compared to the current baseline. For example, emissions data for the current air quality baseline is presented as 5-6µg/m and 7.7µg/m for SO₂ and NO₂, respectively, with the predicted increase of 0.66µg/m and 0.4µg/m, respectively. This increase is still well within the accepted critical level for the protection of habitats (20µg/m and 30µg/m respectively for all vegetation). Additionally, the predicted increase in ammonia is not considered to result in significant adverse impacts. A further review of published critical levels for the scattered sensitive habitats present across the Aol did not identify any habitats for which significant air quality impacts are predicted. As per **Section 5**, this dispersion modelling should be updated to validate these findings, in particular with regards to critical loads deposition (for which no modelling has been undertaken).

6.3.1.1 Conclusions

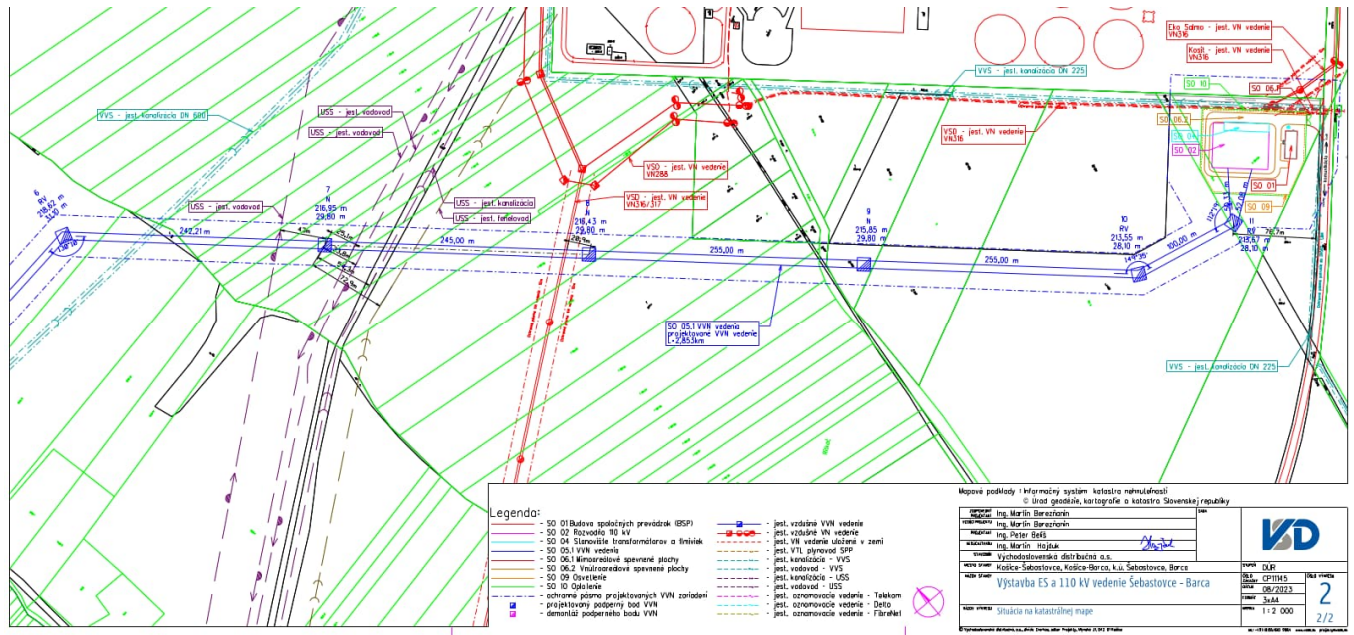
No significant effects are predicted for any biodiversity receptor (including Critical Habitat and PBF) from the Project, HWP and OHTL (and the derelict building on the K3 site), and pre-construction walkovers will be undertaken by a suitably qualified ecologist to verify this and identify any localised mitigation that should be implemented to ensure ongoing Project compliance. Further, a suitably qualified ornithologist will be consulted regarding the need and specification of any bird divertors and bird-friendly insulator components.

APPENDIX I – UPDATED ROAD NETWORK, VALALIKY



APPENDIX II – OVERALL HWP ROUTE ALIGNMENT







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