NON-TECHNICAL SUMMARY

Croatia Corridor Vc Motorway Completion Project

Croatia/Hungary Border - Halasica Bridge

March 2019

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Abbreviations & Acronyms:

CESMP	Construction Environmental and Social Management Plan
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIS	Environmental Impact Study
EPA	Environmental Protection Act
E&S	Environmental & Social
ESAP	Environmental and Social Action Plan
ESMP	Environmental and Social Management Plan
ESP	Environmental & Social Policy
EU	European Union
km	kilometre
LARF	Land Acquisition and Resettlement Framework
LARP	Land Acquisition and Resettlement Plan
NTS	Non-Technical Summary
PR	Performance Requirement
RSA	Road Safety Audit
SEA	Strategic Environmental Assessments
SEP	Stakeholder Engagement Plan
HAC	Hrvatske Autoceste d.o.o
EIB	European Investment Bank
NTS	Non-Technical Summary
ESIA	Environmental and Social Impact Assessment
ILO	International Labour Organization
OG	Official Gazette
H&S	Health and Safety
HR	Human Resources
OHS	Occupational Health and Safety
RSF	Roadside service facilities

1. Introduction

Hrvatske Autoceste d.o.o. ("Croatian Motorways Limited" or "HAC" or the "Company") is planning construction of a 22.5 km motorway section between the border with Hungary and Halasica Bridge on Motorway A5, divided into two sub-sections (the "Project").

The European Bank for Reconstruction and Development (the "EBRD") is providing financing for these investments, in the total amount up to EUR 77.0 million. Up to EUR 52 million of the EBRD loan will be used to finance construction of the Project, while the remaining funds are expected to be utilized for the modernization of the HAC lighting system under an exploratory loan tranche. European Investment Bank (EIB) is expected to co-finance both sub-sections in an amount equal to EBRD (i.e. providing an additional EUR 52.0 million for the motorway construction) and participate in the energy efficiency capex with a further EUR 25.0 million.

This document is a Non-Technical Summary (NTS) providing information on the design of the Project, the potential environmental and social impacts and management measures that will be undertaken by HAC for the Project, and how members of the public can contact the Company with any further questions they have about the Project.

The Project has been developed by HAC based on the Republic of Croatia legislative requirements and those of the European Union, EBRD and EIB. HAC will manage the Project and monitor the progress of the Project including environmental, social and health & safety performance.

The following sub-sections of the highway will be constructed during the course of the Project:

- Hungarian border - Beli Manastir (chainage km 0+000.00 to km 5+000.00, L=5.0 km):
- Beli Manastir - Halasica Bridge (chainage 5+000.00 to km 22+480.00, L=17.5 km):

As this Project involves the construction of new road over 10 km in length, the EBRD has assigned it a Category A, which means that a comprehensive Environmental and Social Impact Assessment (ESIA) and review of associated documents must be carried out, followed by their public disclosure for a minimum period of 120 days. The EBRD are working with HAC to ensure that the Project's environmental and social risks are appraised and managed in accordance with EBRD Policy.

In addition to this **NTS**, a **Land Acquisition and Resettlement Framework (LARF)** has been developed to guide and document the land acquisition process. A **Stakeholder Engagement Plan (SEP)** has also been developed for the Project describing the planned stakeholder consultation activities and engagement process. Furthermore, an **Environmental and Social Action Plan (ESAP)** has been prepared in relation to the Project, in order to structure the future Project preparation activities to be in line with EBRD's Environmental and Social Policy (ESP 2014). The key environmental & social (E&S) project preparation documents –SEP, NTS, LARF and ESAP - will be uploaded to the Croatian Motorways website (http://www.hac.hr) and the EBRD website (http://www.ebrd.com).

2. Project Need & Background

Project Need & Benefits

Motorway A5 (State border with Hungary - Beli Manastir - Osijek – Svilaj) is part of the international Pan-European Corridor Vc and is one of the most important sections of the TEM/TER Project. The section in question is a part of the European network marked E73 which connects north of Europe with the Adriatic and represents the backbone of the road transport infrastructure in the eastern part of Croatia.

The transition impact of the Project will support greater efficiency of border crossing custom and immigration procedures resulting in higher trade flows along the Corridor Vc. Furthermore, it will provide Institutional Strengthening through the improvement of procurement policy and practices at HAC and contribute further commercialisation of HAC through potential private sector participation in tolling and maintenance operations.

Completion of the new highway will also improve road safety for the long-distance travellers by providing a safer and faster travel option, and for the local communities and traffic on local roads by removing some of the heavy traffic from local road network.]

3. Project Description

Description of Project

The project section has been designed as a dual carriageway, dual lane motorway separated by a central reserve, and with one emergency lane each.

The concerned project consists of the main motorway route with road structures and structures and crossing over the route, road crossings, roadside service facilities (RSF), interchanges, toll gates and parallel roads.

The following sub-sections will be constructed (see Figures 1 and 2):

Hungarian border - Beli Manastir (chainage km 0+000.00 to km 5+000.00, L=5.0 km):

The beginning of the subsection is on the Croatian-Hungarian border at Branjin Vrh border crossing, 200 meters to the north from the Travnik Drainage Channel. The route extends to the south, passing west of the Branjin Vrh and Sumarina settlements and east of the Luc settlement towards Beli Manastir, bypassing the town from its west side. It reaches the railway line and the Karasica River which it crosses via the Karasica viaduct. Then it reaches the local road L 44006 between the Luc (west) and Sumarina (east) settlements, upon which the section ends, just before reaching the Beli Manastir Interchange. The largest structure on the alignment is the Karasica Viaduct across the railway line (L=294 m) and two bridges, 7.1 m in length each.

Beli Manastir - Halasica Bridge (chainage 5+000.00 to km 22+480.00, L=17.5 km):

This subsection begins with the Beli Manastir Interchange, the intersection with the D517 state road to Beli Manastir and extends south passing west of Beli Manastir, towards Jagodnjak, which it bypasses to the east, near Novi Ceminac. It comes across the river Drava and crosses it via a Halasica Bridge across the dike on the Baranja side, the left flood zone, which is the end of the EBRD funded project. This subsection has five bridges (the longest ones are 31 m), one viaduct and four wildlife crossings

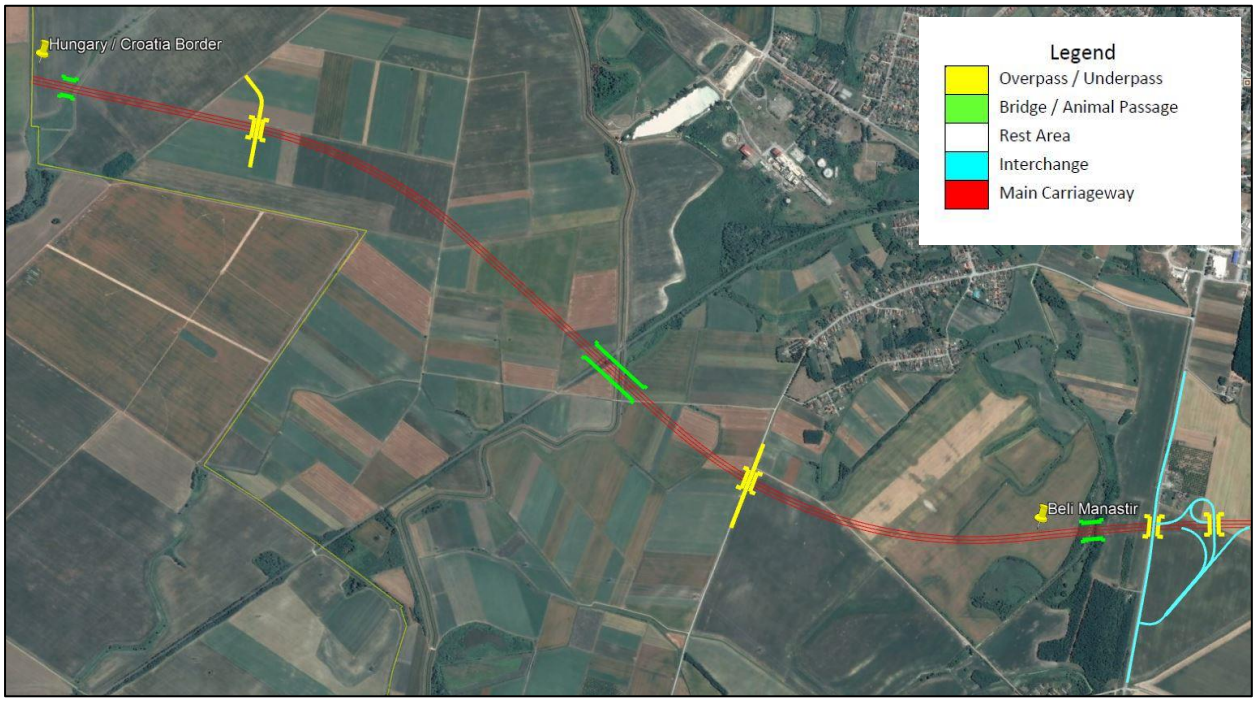

***Figure 1** - Hungarian border - Beli Manastir (chainage km 0+000.00 to km 5+000.00, L=5.0 km)*

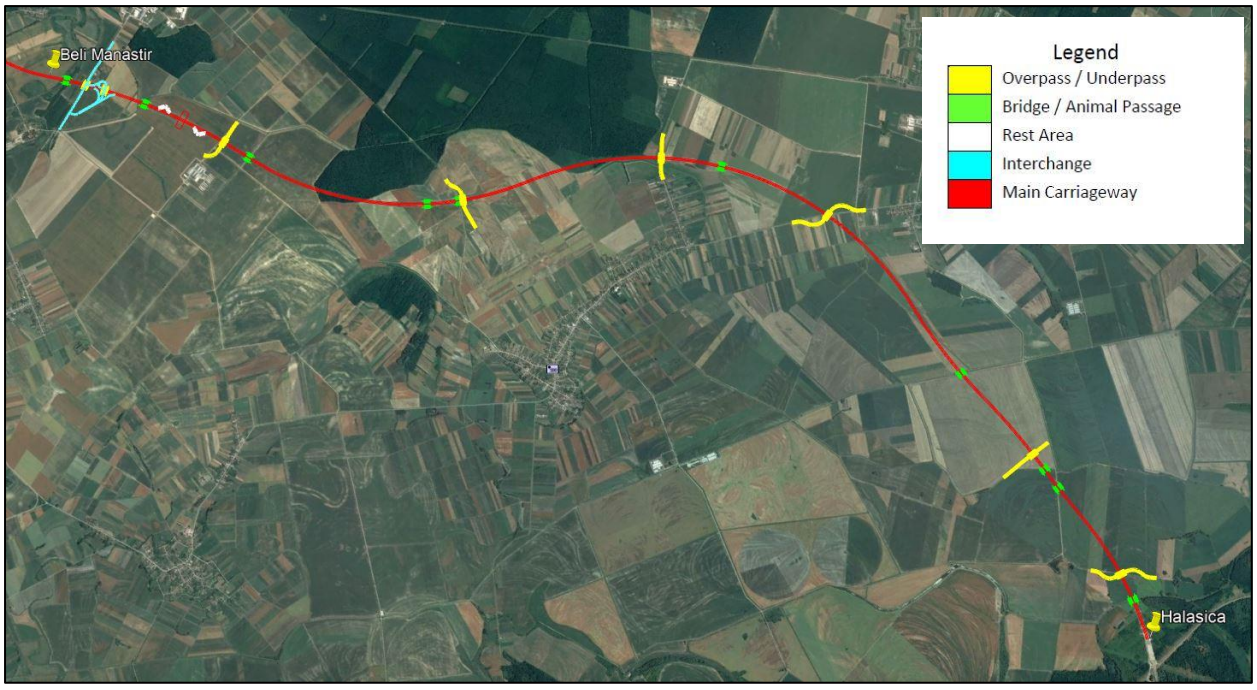

***Figure 2** - Beli Manastir - Halasica Bridge (chainage 5+000.00 to km 22+480.00, L=17.5 km)*

Road Safety

One of the key aims of the Project is to deliver improvements in road safety. The creation of the new highway will remove some of the heavy through traffic from local roads, which will help reduce community and road safety risks and congestion in these areas. A Road Safety Audit will be undertaken on the current design to consider the need for additional safety measures.

Project Structure and Timeline

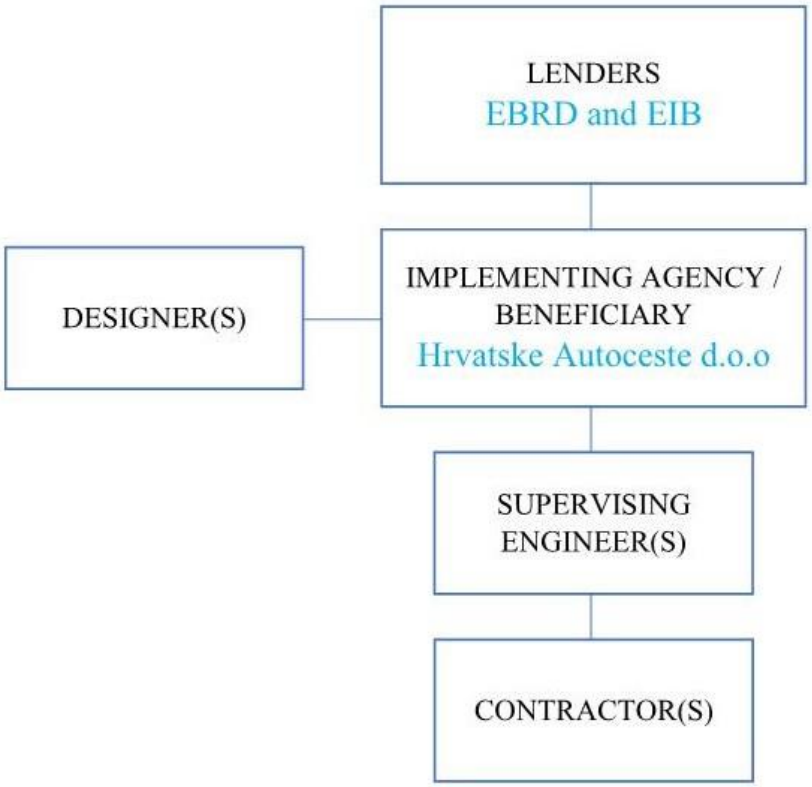

Figure 3 - *Project Structure*

The Project schedule and current workforce estimates are indicated below – these are estimates at this time (April 2019) based on the currently available information and may be subject to change depending on procurement process, approval of project financing by the EBRD and EIB, and other ongoing activities, such as design and land acquisition:

Phase I – Sub-Section Beli Manastir - Halasica Bridge.

Construction works on structures, including bridges, culverts and animal passages, are already ongoing.

Changes as currently being made in the Main Design in order to update Building Permit for works on the main carriageway of this sub-section. Procurement process for the construction works on the main carriageway is ongoing and construction contract is expected to be awarded in Q2 2019.

Construction works are expected to start in Q3 2019 with construction taking 30 months. Estimated completion is Q4 2021, depending on commencement of works.

Phase II - Hungarian border - Beli Manastir.

Design procurement process is ongoing. It is expected that the design contract will be awarded in Q3 2019. Procurement process for construction works is expected to start in Q1 2020, with a view to award construction contract in Q3 2020. Based on these estimates, start of construction is expected in Q4 2020.

Drava Bridge

Drava Bridge is almost complete as part of a separate contract also implemented by HAC, with completion percentage currently at 99.7%. Only minor defects noted during defect notification

period are left to be resolved. It is expected that Drava Bridge will be reviewed as a part of technical acceptance process by the end of Q2 2019.

In parallel with construction of the Drava Bridge regulation of Drava River has been undertaken and completed in line with conditions and design provided by Hrvatske Vode. These works included river regulation, river revetment and cleaning of riverbed in the total length of 3.1km (upstream and downstream).

4. Route Selection & Alternatives

The route of the concerned project from the border with Hungary to Osijek, runs through the northeast part of Osijek-Baranja County and is harmonised with the county physical plan (County Journal, No 1/02 and 4/10, 3/16, 5/16 and 6/16).

Locally, the route runs through the area of the Town of Beli Manastir and municipalities of Jagodnja, Čeminac, Darda, Petlovac and Petrijevci ,i.e. cadastral municipalities Luč, Branjin Vrh, Šumarina, Beli Manastir, Jagodnjak, Čeminac, Darda and Petrijevci. The concerned project consists of the main motorway route with road structures and structures and crossing over the route, road crossings, roadside service facilities (RSF), interchanges, toll gates and parallel roads.

The beginning of the project (section: Hungarian Border – Beli Manastir) is on the Croatian-Hungarian Border, 200 m to the north from Travnik Drainage Channel. The route extends southwards, passing west of Branjin Vrh and Šumarina settlements and to the east of the Luč settlement towards Beli Manastir, bypassing the town from its west side. It reaches the railway line and the Karašica River, which it crosses over the Karašica Viaduct. Then it reaches the local road L 44006 between settlements Luč (west) and Šumarina (east), after which the section ends, just before reaching the Beli Manastir Interchange, which pertains to the continuing section Beli Manastir - Osijek.

In continuation of the project (section Beli Manastir- Osijek), after intersection with the state road D517 to Beli Manastir, the route extends southwards passing to the west of Beli Manastir, towards Jagodnjak, which it bypasses to the east side, near Novi Čeminac. It reaches the Drava River and crosses over it by a bridge across the foodbank on the Baranja side, the left foreshore area, the Drava riverbed itself and the right foreshore area with the river Vučica. It reaches the state road D34 between Josipovac and Petrijevci, which is elevated above the motorway according to this design. In continuation, it reaches the railway line R202 (Varaždin–Koprivnica–Virovitica–Osijek–Dalj), it is carried over it by a longer viaduct Josipovac, after which the section ends, right before the Osijek Interchange.

Alternatives assessment

The corridor of the planned highway initially appears in the first spatial plans that were done for Eastern Croatia. At that time, corridor was considered as a branch of the Trans - European motorway system and was introduced in the first a spatial plan that encompassed the whole region of Slavonia and Baranja (spatial plan for the municipality Osijek), as well as in the spatial plan for the Republic of Croatia adopted at the end 80's. At that time, the area of Eastern Croatia was divided into 17 municipalities. For all the municipalities from that period where current corridor is trespassing, spatial plans were made (Beli Manastir, Valpovo, Osijek, Bakovo, Slavonski Brod).

After the split of Yugoslavia, the Republic of Croatia, as an independent state, had to evaluate the justification of previously planned traffic corridors.

The need to build the planned motorway was established by the Strategy of Physical Planning for the Republic of Croatia, the Spatial Planning Program for the Republic of Croatia (NN, No. 50/1999), and The Transport Development Strategy for the Republic of Croatia (NN, No. 139/1999), where it is indicated a joint statement that seven major European corridors of the Republic of Croatia and Bosnia and Herzegovina were accepted, in Helsinki (1997), and confirmed as official European corridors.

At the end of 2000, the Spatial - Traffic Study of the Budapest - Ploce motorway was prepared (Corridor Vc) for section Beli Manastir - Svilaj (prepared by IGH - PC Osijek in cooperation with the Department of Spatial Planning Osijek). The main goals of this study were to define the route of the planned motorway according to geo-coded maps, in order to provide space protection along with the planned motorway. In addition, contact points were defined with the neighbouring countries as the basis for negotiations with other countries, where some problematic points have been identified that need to be resolved in further elaboration of the spatial-traffic-technical documentation.

The planned motorway route passes through most of the territory of the Osijek - Baranja region and through smaller part of the Brod - Posavina region.

For both the regions through which the planned motorway route has been built, the regional spatial plans were made. The spatial plan of Brod - Posavina region was adopted in 2001 and the spatial plan for Osijek – Baranja region was adopted in 2002.

In both regional plans, a corridor for the planned motorway from the spatial - traffic study was implemented (IGH-PC Osijek in 2000).

The observed route within this study is in accordance with the route indicated in the regional spatial plans. A small deviation compared to the spatial plan of Osijek – Baranja is in the transition zone across the river Drava, where the study suggested moving a planned bridge of approximately 400 m to the west, to ensure more favourable crossings across the river. This correction is within the limits of permissible deviations according to the implementation provisions of the regional plan.

Variations in the Main Design Going Forward:

The spatial position of the route was conditioned at the beginning of the project based on international agreements between the Republic of Croatia and Hungary regarding the point of connection of motorways between Branjin Vrh and Ivandarda (at the session of 29 July 2010, the Government of the Republic of Croatia adopted a Regulation on publication of the Contract between the Government of the Republic of Croatia and Government of the Republic of Hungary on establishment of the point of connection of motorways between Branjin Vrh and Ivandarda, concluded in Barcs, 17 September 2009).

Except for the beginning of the 1st section, a greater part of the route of the second section was defined by the already built Drava Bridge and by the final part of the section from the Drava Bridge to the end of the 2nd section, which is currently under construction.

5. Summary of Environmental & Social Legal & Policy Framework

National Legal Framework for the Project

This Project is carried out within the jurisdiction of the Republic of Croatia. Republic of Croatia became an EU Member State in June 2013 and started process of aligning of the National legislation the EU regulations. Process is still ongoing. Croatia has been a member state of the ILO since 1992 and has ratified 59 ILO Conventions, including the eight fundamental conventions.

Legal Framework for Environmental and Social Protection

The Environmental Protection Act (Official Gazette No. 80/13, 78/15) (EPA) is the framework environmental law for Croatia. EPA regulates the principles of environmental protection within the concept of sustainable development, environmental protection and environmental protection from the impact of the loads, environmental protection subjects, sustainable development and environmental protection documents, environmental protection instruments, environmental monitoring, environmental information system, insurance access to environmental information, public participation in environmental issues, access to justice, environmental damage liability, financing and general environmental policy instruments, administrative and inspection supervision, and other related issues. In addition to EPA, key National legislation also includes National Environmental Action Plan and Strategy for Sustainable Development of the Republic of Croatia.

Laws on social issues include those relating to land acquisition, public health, and a labour law which deals with workers' rights, including occupational health & safety, labour relations, working conditions, employment, wages, rights of women workers.

Summary of EIA & Permitting Process

The Environmental Protection Act (Official Gazette 80/13, 153/13, 78/15 and 12/18) and the Regulation on Environmental Impact Assessment (Official Gazette 61/14 and 3/17), hereinafter: the Regulation) stipulates the implementation of the procedure for assessing the impacts of environmental interventions. By adopting these regulations, the procedure is systematically regulated and aligned with the relevant EU directives: Council Directive 85/337 / EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, as amended by Council Directive 97/11 / EC of 3 March 1985 1997 and Directive 2003/35 / EC of the European Parliament and of the Council of 26 May 2003. In addition, the adopted regulations are also based on the provisions of an international treaty, which the Republic of Croatia has confirmed by the adoption of the Law on the Confirmation of the Convention on Environmental Impact Assessment across State Boundaries (Official Gazette - International Agreements, No. 6/96).

The list of interventions in Annex I, which forms an integral part of the Regulation, outlines the procedures for which the environmental impact assessment procedure is mandatory. In the List of Procedures in Annex II are the actions for which an assessment is made of the need for environmental impact assessment and for which the Ministry is competent, and in the list of interventions in Annex III, which also is part of the Regulation, are the actions for which an assessment is made of the need for environmental impact assessment and for which is the competent administrative body in the county or in the City of Zagreb. Criteria on the basis of

which decisions are made on the need to assess the impact of the environmental impact are set out in Annex V of the Regulation.

The assessment procedure is initiated at the written request of the developer, and the content of the request is stipulated in Article 80 of the Environmental Protection Act. The mandatory content of the Environmental Impact Study (EIS), which is an integral part of the application, is more detailed in Annex IV of the Regulation. The study must assess the impact of the planned environmental intervention on the basis of factors which, depending on the action and the characteristics of the environment, condition the distribution, strength and duration of the influence. The study must contain all the necessary information, documentation, explanations and descriptions in the textual and graphical form, the draft of the acceptability assessment of the project and the environmental measures in relation to the procedure and, if necessary, the environmental monitoring program. The study must be made on the basis of the latest, credible and accessible data, made by the authorized person - a legal person who has the authority to carry out these tasks, and the cost of the study is borne by the developer.

The impact of the project on the environment, its evaluation and acceptability are assessed by the commission on the basis of the study. The Commission shall be appointed by the Ministry for the Projects designated in the List of Projects listed in Annexes I and II of the Regulation, and the administrative body in the County, or in the City of Zagreb for the projects listed in Annex III of the Regulation. Committee members are appointed from the ranks of scientific and professional staff, representatives of bodies and / or persons determined by special regulation, representatives of local and regional self-government units and representatives of the Ministry. The Commission works at the sessions and after having determined that the study is complete and professionally grounded, it proposes to the competent authority the referral of the study to a public hearing. After the public hearing has been conducted, the committee issues an opinion on the acceptability of the project and sends it to the competent body for the adoption of a decision which is the mandatory content of the future permit for the implementation of the project.

The environmental impact assessment is compulsory for the interventions listed in the list of interventions set out in Annex I to the Regulation and for the interventions for which this obligation has been determined in the assessment process of the need for assessment.

When a competent authority receives a request for an environmental impact assessment, it shall inform the public thereof. The information contains basic information on the procedure, location, intervention operator, competent body, other participants in the procedure, the manner of conducting the assessment procedure, the manner of public participation and the public concerned, and the manner of notifying the outcome of the procedure.

Planning, traffic planning and road planning

The Law on Roads (Official Gazette 84/11, 22/13, 54/13, 148/13, 92/14) regulates the types of public roads in Croatia, their management, planning, financing, reconstruction, maintenance and protection. It also provides regulatory requirements for concessions and public-private partnerships for road projects. The route of the concerned project has to be harmonised with the Spatial Plan of Osijek-Baranja County (County Journal no. 1/02, 4/10, 3/16, 5/16, 6/16).

Land Acquisition Legal Framework

The key legal instruments governing expropriation in Republic of Croatia are Law on Expropriation and Determination of Compensation (Official Gazette 74/14, 69/17), Law on Property Valuation (Official Gazette 78/15), Law on General Administrative Procedure (Official Gazette 47/09), Law on Property and Property Relations for the Purpose of Construction of Infrastructure Buildings (Official Gazette 80/11) and Law on Management of State Property (Official Gazette 52/18). These regulate the conditions and procedure for expropriation of property for construction of facilities in public interest, compensation eligibility and amounts, grievances and disputes handling and other issues pertaining to the expropriation process.

Law on Expropriation and Determination of Compensation envisages procedure of consensual resolution of property-legal issues with private owners, when an offer based on the expert's valuation is submitted to the owner. Purchase contract is concluded with those owners who accept the offer, otherwise, the administrative expropriation procedure is initiated. In cases when the parcels are publicly owned, property-legal issues are resolved through administrative transfers.

Ownership and other formal legal rights on land and structures are recorded in the Land registries (Law on Land Registers (Official Gazette 91/96, 68/98, 137/99, 114/01, 100/04, 107/07, 152/08, 126/10, 55/13, 60/13, 108/17)) and all issues regarding property rights have to be resolved before the expropriation payment is made. In case of disputes, the courts will rule and decide on any compensation payable. The law foresees rights of affected citizens (those with formal legal rights) to appeal at many stages of the expropriation procedure, beginning with administrative and judicial appeals (i.e. against decision on expropriation, regarding compensation).

The Law on Expropriation and Determination of Compensation falls short of the requirements of EBRD in several areas. EBRD requires a baseline socio-economic survey to be completed on the parties affected before the start of the process, as well as after the process has ended to ensure that the land acquisition process hadn't left the parties affected in a worse socio-economic situation. Additionally, EBRD requires those users of the land who have no recognisable legal right or claim to the land they occupy to receive appropriate compensation. Similarly, those carrying out informal business activities should also be entitled to compensation.

EBRD requires that public disclosure of information and meaningful consultations are held with all categories of project affected people prior to expropriation, and requires an independent grievance mechanism be available to all affected communities and stakeholders. Finally, the expropriation, resettlement and livelihoods restoration processes need to be regularly monitored to assess the effectiveness of implemented measures.

6. Cumulative Effects

6.1 Traffic

Impact during project preparation

At intersections with the existing state roads, grade separated interchanges are planned, through which traffic from the secondary network will connect to the motorway (Osijek interchange, Čeminac interchange, Beli Manastir interchange). Crossing of roads by an overpass has been planned at intersections with other roads in the area, including state, county, local or unclassified roads. Collisions with unclassified field roads will be resolved either by grade separated overpasses or by connecting cut-off roads by parallel unclassified roads.

Undisturbed running of river transport will be solved within the scope of the project by ensuring a continuous navigable waterway even under the Drava Bridge. On intersections with the railway line, viaducts have been planned, which ensure passing under the motorway with the provision of railway clearance. Two viaducts across the railway line have been planned, Josipovac viaduct and Karašica viaduct.

Impact during construction

The motorway construction will have an impact on traffic on the existing motorway network and it will be necessary to ensure optimal conditions of road traffic on them in all phases of construction. This also refers to local communication along the motorway corridor, which are used by local population.

Negative impacts during construction related to traffic safety are unavoidable, however they will be reduced to a minimum by proper construction site organization and Temporary Traffic Regulation Design during execution of works.

The impact on the environment is created either by construction of access roads, or use of existing roads and construction of manoeuvring areas and car parks for vehicles and machinery. The proper site organization will additionally reduce the environmental impact during construction. It is planned to use the existing field paths for construction site needs. The existing road network will be used as little as possible, as agreed with the road authority and under conditions it prescribes.

This impact will be significantly reduced by construction organization by transporting materials on the motorway route, by performing construction in stages.

Railway transport will be used for transport of machinery or construction elements and products from greater distances, in order to reduce the impact on the existing road network to the greatest possible extent.

6.2 Water

In case of an accident, with respect to surface waters, the greatest danger is if an accident occurs during the period of intense rainfall, i.e. when the drainage system is burdened by waters coming from the road and when a local system of natural surface drainage is being established on the surrounding terrain.

This risk is inversely proportional to the distance of the road from the beds of surface watercourse, i.e. the greater the distance the lower the risk, and vice versa. Due to relatively simple terrain morphology on the greatest part of the route, liquid pollution will primarily try to infiltrate into the underground, and spreading over the terrain surface will be slow and mostly limited, and it will be possible to prevent it by timely intervention.

From km 3+000.00 to km 9+750.00, the road passes through protection zone III of the Livade well field, and from km 27+440.00 to km 29+589.67 the road passes through protection zone III of the Vinogradi well field, which belongs to the water supply system of the City of Osijek.

Since the road runs through the third (III) zone of sanitary protection of the well field, the protection measures have been planned in compliance with the Ordinance on Determination of Sanitary Protection Zones. Storm water from the sections of the area is under a stricter protection

regime, since according to the current findings, the majority of known springs is fed by rainfall infiltration.

In the major part of the Baranja area, semi-permeable deposits are present in the top of the capped aquifers, which indicates that it is not possible to exclude completely the possibility of contamination of shallow aquifers.

Impacts during construction

The impacts on the following water bodies are possible in the project area: surface water body Travnik, Karašica, Karašica drainage channel, Bojana, Halašica channel, Drava, Dalagaj, Barbara Canal, Bistra and Vučica and groundwater body "Istočna Slavonija sliv Drave I Dunava/Eastern Slavionia, Drava and Danube catchment area". The possible impacts are reduced to impacts on physical-chemical elements that support the biological elements of quality and chemical condition, which are possible in case of an accident. However, with proper construction site organization and protection measures it is not expected that the project will have an impact on waters.

The following impacts on waters are possible during construction: on open watercourses, ground waters, well fields and irrigation channels in the project area. These are short-term impacts that will stop immediately upon completion of works on the project.

The greatest impact on waters in the project area of A5 motorway will be at the locations where the road crosses over watercourses.

During execution of earthworks, increased generation of soil and dust is possible, which may, at the time of the execution of works, cause turbidity of the watercourse, carrying away of a significant quantity of earth material, and it may have an impact on air pollution. The intensity and magnitude of the mentioned impacts are primarily conditioned by the procedures during earthworks as well as weather conditions (dry or wet weather, wind).

During project construction, the potential sources of pollution or of other unfavourable impacts on surface and ground waters in the contact and wider project area, can be classified into several basic groups:

- The absence of the surface (storm water) drainage system, water on manoeuvring surfaces,
- Improper storage of petroleum products, oils and lubricants in inadequate tanks and the possibility of accidental spillage,
- Fuelling vehicles and construction machinery and performance of necessary repairs on areas from which flowing out is possible into the surrounding area without secured protection and cleaning,
- Increased quantities of construction, municipal and hazardous waste.
- Due to linear character of works, there is a realistic possibility of intersecting or backfilling the occasional natural drainage paths of surface waters,
- Washing out of mud from poorly positioned temporary or permanent stockpiles for excavated material and the material entering into the water courses and groundwater,
- During excavation for construction of bridges and viaducts, the dynamics and the quality status of groundwater may become impaired, especially in parts where these works are carried out under the groundwater table,

- Disturbance of the existing water regime and the flood defence system.

A part of the motorway route passes through the sanitary protection zones of the well fields Vinogradi and Livade that must be adequately protected in order to prevent the impairment of the quality of pumped out water.

Impacts during use

During use, transportation facilities represent a permanent and active source of pollution, as the consequence of traffic.

The pollution sources that might appear along the motorway are divided into point and non-point sources. The point sources of pollution are all concentrated pollution sources which discharge pollution that may pollute surface and underground waters. Storm waters that are included in the combined sewerage system are also considered point sources of pollution.

Unlike these defined sources of pollution, the pollution activated due to the impact of storm water in the wider area belong to non-point sources of pollution.

According to this division, the pollution occurring at certain points in the project area, in restaurants, petrol stations and other separate structures along the motorway belong to point source pollution. Non-point source pollution is contamination of surface and ground waters caused by pollutants from the motorway, such as heavy metals, petroleum products, paints, tire residues and industrial salt sprinkled on roads in winter periods. The salt is rinsed from the pavement by storm water and thawing snow and it reaches water courses or groundwater and thus decreases the quality of those waters.

On the motorway part from km 0+000.00 to km 2+912.78, from km 9+750 to km 22+545, and from km 26+580 to km 27+440, drainage with free discharge has been planned. The mentioned parts of the route are outside the areas under a protection regime and storm water is freely discharged into the environment.

Road sections with bridges, which are outside the protected zone of the well field, belong to the areas with a more lenient protection regime. They include bridges and their access ramps, in their entire length down to their lowest concave points.

Since in this case there will be a greater quantity of collected storm water runoff, which is discharged at certain points in the environment, it is planned to treat the storm water

preventively in an oil and grease separator before discharge.

On the section of Beli Manastir–Osijek motorway, the drainage of collected storm water is solved in the mentioned way from km 22+545 to km 26+580, in order to protect the Drava River and its foreshore area, as well as of the river well field Pampas, located several kilometres downstream, which belongs to the water supply system of the City of Osijek. From km 3+000.00 to km 9+750.00, the motorway passes through protection zone of the Livade well field, and from km 27+440.00 to km 29+589.67, the road passes through protection zone III of the Vinogradi well field, which belongs to the water supply system of the City of Osijek. Since this is the third (III) sanitary protection zone of well fields, it is planned to treat the storm water collected from the pavement preventively in oil and grease separators, before discharging it into the road channel. Secondarily, in order to increase the protection level after treatment in the separator, the storm water is carried to a lagoon, where high efficiency of pollution elimination is ensured in the process

of prolonged retention. After treatment, the collected storm water is discharged into the pertaining perimeter road channel and carried to the receiving water body, through which it flows further outside the sanitary protection zone of the well field.

The locations of possible points of impact of the planned project and waters are:

- Crossings over watercourses and channels. The highest risks from negative impact of the project are related to a possible increase in salt concentration during the winter months, and increased concentrations of by-products of operation and movement of vehicles (heavy metals, tires etc.).
- Crossings over the embankment. It is possible that the stability and safety of the embankment will be disrupted, i.e. that the function of the embankment in flood defence will be impaired.
- Relocation of the existing drainage system channels is planned on certain parts of the route, which can reduce the functionality of the drainage channel network.
- Passage of the motorway across well field.

From km 3+000.00 to km 9+750.00, the motorway passes through protection zone III of the Livade well field, and from km 27+440.00 to km 29+589.67, the motorway passes through protection zone III of the Vinogradi well field, which belongs to the water supply system of the City of Osijek.

In places where the project passes through protective zones of the well field, it is necessary to protect the project against possible pollution, which may occur, and thus threaten the quality of the groundwater along the well field.

Protection measures have been planned for the protection of the well field, according to the Ordinance on the conditions for establishing sanitary protection zones for springs (OG 55/02, 66/11, 47/13).

6.3 Biodiversity

6.3.1 Hungarian border to Beli Manastir

Impacts during construction

From the condition encountered on-site, it is clear that the greatest part of the route and structures run across anthropogenic habitat types. Arable land covered by different agricultural crops and pertaining weed and ruderal vegetation will come under the direct impact of the project. A part of these habitat types will be permanently changed in use.

The negative impact of the project on forest habitats is manifested as fragmentation and reduction of areas overgrown in forests in the Economic unit Haljevo - Kozaračke forests. The motorway route includes 11.75 ha of forestland, out of which pedunculated oak forest makes up 10.91 ha (93%). The route partially encroaches on the forest edge in the mentioned economic unit and a very small forest area of 2.78 ha remains isolated in one place.

Even though Karašica watercourse (Baranja), which is hydrologically connected to Danube is located in the zone of project implementation and it will have an indirect impact on it during

planned activities of construction of Karašica Overpass, across Karašica River, a significant negative indirect impact of the project on all ichtiofauna is excluded in the mentioned area.

Intensively farmed agricultural land with a few elements of mixed habitats predominate (orchards, groves, gardens, hedges etc.) and this habitat type with a pertaining bird community is widely distributed in the surrounding area of the project and the loss of such habitats does not constitute a significant negative impact.

Impacts during use

Negative impacts on habitat types during the use of the motorway are air, water and ground pollution which can disrupt habitat quality. Fragmentation of the habitat is a negative impact, primarily on animal populations, as it causes a breakdown of a continuous habitat, threatens their ability to survive due to unavailability of seasonal sources of food and the loss of areas for reproduction and raising offspring.

The impacts during use are considered negligible, considering the planned wildlife crossings for animals and safety fence along the motorway, which will enable undisturbed movements of animals and at the same time prevent them from exiting to the road and reduce the rate of fatalities caused by vehicles.

6.3.2 Beli Manastir to Osijek

Impact during construction

A part of concerned project in the area of this section has already been built (Drava Bridge) or is at the construction stage (final part of the route, from the Drava Bridge to the connection with the built section Osijek - Đakovo), and the possible assumed impacts during construction ended upon completion of construction works.

Impact during use

The negative impact of lighting within this project might manifest as disruptions to breeding of birds, which may reduce the number of nests in certain places in Drava foreshore areas, or even lead to complete absence of nesting. Migratory birds also, for example, lose their orientation, strong light disturbs their flight and many of them die in different ways, frequently by e.g. colliding with parts of high civil engineering structures (e.g. bridge on the Drava River) or cars. One of the most severe known consequences of light pollution for birds is a hormonal disruption, when the birds nest in autumn instead of spring.

There could be a negative impact of lighting on amphibians and reptiles (e.g. turtles, frogs, snakes), which during the night recognize the body of water (ponds, pool, canal) by the reflection of the light on its surface. If there is lighting nearby, which directs its light towards the water surface, it happens that animals attracted by it die either as they fall prey to predators or under the wheels of a car.

A negative impact of lighting could manifest as disruption of the flight of insects, which are on one hand repelled by the light, while others are extremely attracted to it (e.g. moths, mosquitoes, odonata etc.), which leads to numerous deaths, when they come too close to lighting fixtures or vehicles, which directly disrupts the balance of the ecosystem.

Certain animal species (e.g. small mammals, bats) find the light pollution favourable at first, since their prey is attracted by the light source, which makes it easier for them to catch something, but at the same time also leads to high mortality due to collisions with cars, parts of structures etc., which results in deaths of individual animals, and often in deaths of entire populations. Also, light pollution changes the duration of day and night, therefore some animals do not have sufficient time for feeding, while for others the time of sleep is shortened.

6.4 Air quality

Impact during construction

During the phase of construction, dust will be generated by works on the site (especially during the dry period), loading/unloading of earth material, traffic of cargo vehicles running on earth surfaces etc. The negative impact of dust will manifest as impact on vegetation in the immediate vicinity of the road (10 – 30 m), wherein fine dust can be transported to even greater distances. Also, there will be an increase in emission of exhaust gases due to the operation of machinery for excavation, loading and transport of excavated material and other machines (compactors, asphalt pavers, rollers). Except for the impact on the project location, additional load will be produced on all local, county and state roads where traffic will be running. The impact on air during construction is of limited duration, and pollution intensity can be reduced to a minimum by implementing appropriate measures in individual phases of construction.

Impact during use

By considering the impact of the project under study on air quality, the following negative impact has been identified:

- Emission of gases (CO, NOx, HC, PM), from exhaust systems of motor vehicles during project use. The share of heavy trucks represents an important factor, especially in terms of the contribution to the concentration of nitrogen oxides.
- Emission of particulate matter (PM10, PM30), raised from the road, under the impact of strong, turbulent air motion due to passing of vehicles.

In addition to the stated assumptions and the planned traffic load, the following can be expected:

- The limit values for NO2 and CO will not be exceeded under the impact of the concerned project and the pollution will be within limits of acceptability.
- The LV for PM10 may potentially be exceeded on the road route, while outside the road corridor, the pollution under the impact of the concerned project will be within limits of acceptability.

The impact on microclimate will be of local character, usual for motorways, while the impact on the ozone layer will be negligible, considering the low traffic load.

6.5 Waste generation impact

Impact during construction

During construction, smaller amounts of municipal, hazardous waste (waste oils, greased cloths etc.) and construction waste will be generated.

Impact during use

During use, smaller quantities of waste from the road drainage facilities (separators) will be produced.

6.6 Impact of unexpected events

Impact during construction

Accident situations related to improper organization of the construction site are possible, which can result in the following:

- Pollution of the soil and waters by petroleum products and waste waters from the construction site,
- Fires outdoors,
- Collisions while the vehicles and machinery are entering and exiting the project area,
- Accidents caused by force majeure (unfavourable weather conditions, thunder strike, etc.) technical defect and/or human error.

Impact during use

Accidental situations (collisions, veering off the road and overturning, spillage of oil and petroleum products and other hazardous substances in the environment) represent the greatest environmental impact, during which environmental accidents may occur.

Larger quantities of oil, petroleum products and different other substances hazardous for water and water environments transported by tank trucks represent a special hazard, since they pollute waters, soil air, flora and fauna if they enter the environment.

The planned motorway route runs through an ecologically sensitive territory, since it comprises arable land of high quality, forests and the underground, which abounds in water (the route passes through the 3rd water protection zone of the well field).

6.7 Impact on noise levels

Noise levels exceeding the legal limit are expected during night time along certain motorway sections, so it is necessary to undertake noise protection measures. Solution by placing noise barriers along the motorway has been considered in the Study.

6.8 Forestry

Due to the motorway construction, 37.31 ha of state owned forest areas have been repurposed or are yet to be re-purposed, and which are managed by “Hrvatske šume d.o.o.”, Forest Administration, branch Osijek.

In parts where the route passes along the edges, i.e. through the forest, damaging of the trees is possible due to changes in habitat circumstances (water supply) and in position of the trees in the stand (light).

In case that the existing forest roads are cut off, it is necessary to ensure replacement accesses and passages as well as wildlife passages.

On parts of the route passing through Valpovačke Podravske and Đardanske forests, the forests have a special purpose, since they are included in the Regional Park Mura - Drava, while their use is economic on the part of the route through Haljevo - Kozaračke forests.

6.9 Soil and agricultural areas

Road traffic has a very significant impact on the cleanness of the environment and its abiotic and biotic components, including emissions of NOx, CO, CO2, VOC into the atmosphere, surface storm water run-off from the pavement, which contains oils, salts and different types of impurities – for example, heavy metals. There is also the regular negative impact due to loss of land, used for construction of the infrastructure, the risk from accidental pollution of soil and waters.

The motorway route crosses over significant and large areas of agricultural land, the degree of development of which varies considerably. Generally, cultivated agricultural land predominates in the analysed zone. Furthermore, another important fact is that drainage has also been constructed on significantly large areas. The motorway, as a structure which is introduced in the area with already formed drainage systems for surplus water, may have a more or less significant impact on those systems. The construction will put out of function some of the channels or drainage pipes, especially if they are intersected by the route at an unfavourable location. Furthermore, some of the channels will have to be relocated or their flow profile will have to be changed, or both.

6.10 Landscape

The construction of the motorway with required technical, safety and economically sustainable standards and location in space, will have a significant negative impact on the existing landscape. The impact will mostly manifest on the stretch from chainage 2+000 to ch.23+000 km. The major part of the route here passes along the central part of Baranja plain, in the direction north-south, which generates a significant impact due to separation of space and change in views from the wider area.

6.11 Cultural and historical heritage

The route of the future motorway passes through an area especially rich in cultural, archaeological and historical heritage. The favourable geographical position enabled confluence of different cultural, economic and political influences throughout the history. Different cultures have alternated in this area, as evidenced in numerous archaeological sites that make it possible trace almost continuous settlement on this territory over the period of 8000 years.

Only immobile cultural heritage, which refer to archaeological sites, were taken into consideration for the purpose of this Study, since other immobile cultural heritage, such as urban and rural ensembles, cultural and historical landscapes, memorial cultural heritage, gardens, parks, public gardens, cemeteries and individual cultural assets belonging to architectural heritage, are not found within the impact zone of the concerned project.

In terms of the route axis and impact zone, the motorway corridor runs at a distance from immobile cultural heritage; therefore the sacral and secular cultural heritage with spatial features is not jeopardised due to the direct impact.

Within the corridor, on the section Hungarian Border - Beli Manastir, possible existence of several sites has been established. The system of protection measures includes a professional archaeological field survey, documenting and mapping of the terrain, in order to establish potential threat to the archaeological site.

The route of the section Beli Manastir - Osijek has been investigated and all 18 established archaeological sites were not jeopardized due to construction works on the section, however in order to protect archaeological localities, additional protection measures are required during construction. Extending of archaeological sites outside the investigated zone was established only on sites 3A and 7A, which also need to be investigated.

7. Flood Risk Assessment

Of all dangers caused by climate change mentioned in Risk Assessment of the Croatian Natural and Technical and Technological Disasters and Major Accidents (DUSZ/National Protection and Rescue Directorate, 2009), only floods were specified as a major danger. The main reason for the high flood risk is due to Croatia's position within the Danube basin and the strong influence of the Sava and Drava basins. Another issue refers to urban areas where short-term and intensive precipitation combined with poor spatial planning causes floods.

Out of all the analysed bodies of water for which data was collected, the following ones will be under the direct impact of this project: Travnik, Karašica, Karašica Drainage Channel, Bojana, Halašica Canal, Drava, Dalagaj, Barbara Canal, Bistra and Vučica.

The Project is located in an area where there is a flood hazard, according to the Flood hazard map based on the likelihood of occurrence (http://voda.giscloud.com/map/321486/kartarizika- od-poplava-za-srednju-vjerojatnost-pojavljivanja). The likelihood of flood occurrence is mostly low, however in the narrow area across the Karašica watercourse, the likelihood is medium to high.

Possibilities of certain flood scenarios developing are shown on the flood hazard map for moderate likelihood of occurrence.

The motorway route passes across the Drava embankment. The Drava embankment has been built along the Drava river bank, so that flooding of a part of south Baranja would be prevented during high waters, and it is necessary to retain elements of the embankment body for defence against floods.

Protection measures during construction phase

Considering that the motorway route crosses over Drava, special attention during construction shall be paid to the elements of the waterway that must be met by the class IV waterway, which includes the Drava River. In the part where the project crosses the Drava embankment, damage to the embankment body, penetration through the embankment or other damage could occur in the execution of project, causing an increased risk of flooding and reduction of the embankment function in protection against flood.

During the execution works within the inundate area, it is important to monitor the water levels and the forecast on water levels' trends in order to protect humans and machinery against high water.

The crossing of project over the embankment must be carried out in accordance with the standards, keeping the flood protection function in full, so as not to impair the stability and safety of the embankment, cause swale of the embankment, appearance of open water flows over the embankment or embankment damages due to erosion.

8. Environmental Impact Assessment (EIA) Process

Environmental Impact Assessment of the Project was conducted in 2003 and 2004 and was supplemented by an updated Environmental Impact Study in 2016. Environmental impacts have been identified and assessed trough EIS, Decision of environmental acceptability of the Project issued by the Ministry of Environmental protection and Energy and Elaborate on compliance of the main design with environmental mitigation measures and monitoring.

A project is categorized as Category A by the EBRD, which means that it could result in potentially significant adverse future environmental and/or social impacts which, at the time of categorization, cannot readily be identified or assessed, and which, therefore, require a formalized and participatory environmental and social impact assessment process.

A Construction Environmental and Social Management Plan (CESMP) will be prepared prior to commencement of the construction of the Project, based on the Environmental and Social Management Plan provided by HAC, to ensure implementation of all mitigation measures required by the National and EU legislation, EIS, design, permits and EBRD and EIB requirements.

9. Stakeholder Engagement

In accordance with the legislative requirements of Croatia, stakeholder engagement activities were organised during the development of the Project. With regards to project specific information disclosure, so far HAC issued several notifications to the media. The public consultations were conducted by third parties as envisaged by the local legislation, as disclosure of the EIA was the responsibility of the designer, parceling surveys are conducted by sight surveyors and the spatial plans were disclosed by the Ministry.

A Stakeholder Engagement Plan has been prepared to identify key stakeholders and define relevant procedures and future plans for engagement prior to and during construction and it includes a project specific grievance mechanism. The SEP includes additional consultations with local communities with respect to land acquisition, construction management and road safety. Disclosure of the NTS, SEP, ESAP and LARP is required. These will be uploaded to the HAC website (http://www.has.hr) and the EBRD website (http://www.ebrd.com).

Engagement with local communities along the route specifically on the project schedule and use of transport infrastructure, in order to retain access, is also considered important. Consultations will clearly present transport routes and potential impacts on local communities to confirm the understanding and support of local communities on the impacts of the Project. The HAC communicates with interested parties through the official HAC website (http://www.hac.hr) in both Croatian and English, as well as through the media.

Through the website and media, HAC discloses information about its operations, laws and regulations, contact details of all departments, news, including upcoming and implemented projects, public documents, consultation meetings, etc. Information about planned utility disruptions and traffic management (during construction) will be provided through local media several days before the commencement of works (several times a day).

10. Land Acquisition & Resettlement Planning Process

The preliminary assessment indicates that no physical displacement will occur as a result of the project and that the total disturbed land-area amounts roughly to 260 ha of land, affecting approx. 560 land parcels. This estimation is based on the initial design scoping and the full extent of impact will be known only after the detailed designs for both sections are completed. The expropriation of land required for the section Beli Manastir – Halasica bridge includes 200 ha of land, affecting 437 land parcels. The land acquisition process for this section began in 2010 and is currently 89% complete. Acquisition of land required for the section Hungarian border - Beli Manastir has not yet started, pending completion of the preliminary design and the development of the expropriation studies.

To ensure land acquisition is conducted in line with National legislation and EBRD and EIB requirements Land Acquisition and Resettlement Framework (LARF) has been prepared. This document provides basic and binding principles to be applied in any and all cases of land acquisition (permanent or temporary) and all other adverse social impacts caused by Project implementation in any of its phases (like physical resettlement, economic displacement, etc.). Based on this LARF, considering the actual extent of the impact in terms of land acquisition and resettlement, a land acquisition and Resettlement Plan (LARP) will be prepared. The objective of the LARP shall be to specify what procedures to follow and what specific actions to take to properly acquire land and compensate people affected by the Project. The actions from the LARP will allow and provide for adequate participation of the affected people in the displacement process, consultation during all phases and full functioning of the grievance mechanism.

The objectives of the LARP are:

- To minimize possible adverse impacts of displacement on population and property,
- To mitigate adverse social and economic impacts of expropriation and temporary or permanent losses by providing compensation for losses of property on the basis of replacement costs and ensure implementation of the activities of displacement with appropriate data disclosure, consultations and participation of PAPs;
- Re-establish or even improve sources of income and living standards of resettled persons to the level before Project impact,
- To establish organizational systems and procedures for monitoring the realization of resettlement plan and to take corrective measures
- To assess past land acquisition and identify any remedial measures required to achieve compliance with EBRD’s performance requirements.

A grievance redress mechanism will be established for the land acquisition and resettlement process so that affected persons can raise issues and grievances. Details of this are included in the SEP and will be provided during the consultations in each of the local communities. Contact details contained in this NTS can also be used to access the grievance redress mechanism.

11. Environmental & Social Benefits, Impacts & Mitigation Measures

The benefits of the Project are summarised below:

- ***Improved Connectivity:*** The Project is part the international Pan-European Corridor Vc and is one of the most important sections of the TEM/TER Project. It will improve road transport infrastructure in the eastern part of Croatia and connect north of Europe with the Adriatic.
- ***Economic Development:*** Improved connectivity provided by the new highway will facilitate faster exchange of goods and services.
- ***Improved Level of Service and Reduced Congestion:*** The removal of some traffic from the existing local road network will reduce congestion, which will alleviate air pollution and noise generated from traffic.
- ***Safety Benefits:*** Provision of new highway should decrease overall accident rate
- ***Short-term Local Employment During Construction:*** The Project will provide short-term opportunities for local employment during the construction period.

The potential adverse effects are summarised in the table below along with the proposed key mitigation measures and an assessment of the residual level of effects, assuming the mitigation measures are implemented:

Table 2 Summary of E&S Impacts and Mitigation Measures

Issue of Concern	Current practice	Potential impact	Mitigation measures
E&S Management System	There is no Environmental and Social (ES) Team to coordinate between relevant project parties and report to EBRD with agreed frequency and matric.	Project specific risks not adequately identified, assessed and managed. Lack of E&S requirements in procurement process.	HAC should appoint Environmental and Social (ES) team to coordinate between relevant project parties and report to EBRD with agreed frequency and matric. ES Team should ensure Project Specific Environmental and Social Management Plan (ESMP) requirements are included in tender documents and contractors' contracts, including requirement to develop specific construction E&S and OHS plans and ensure their implementation during the course of the project.
E&S Management Plan	Project Specific E&S Management Plan has not been prepared.	Project specific risks not identified, assessed and managed resulting in potential negative E&S impacts. Specific requirements (including Lender's) not included in procurement process.	HAC should develop a Project Specific Environmental and Social Management Plan (ESMP), based on the framework ESMP (F-ESMP) which will include a clearly defined Environmental, H&S and Social requirements for the preparation of relevant management plans in line with applicable National and EU legislation, Lenders requirements, ESAP, SEP, LARF and other relevant good international industry practice.
Supply Chain	Requirements included in procurement documentation are not specific enough and do not include references to ESMP, Lenders requirements, internationally recognized management systems (i.e. OHSAS 18001, ISO 45001 or similar) and other specific good international industry practice.	Current level of requirements could be open for interpretation about the required level of information and details needed. Lack of specific requirements in procurement process could result in not clearly defined roles and responsibilities, and inadequate transfer through supply chain.	HAC to include Project Specific E&S Management Plan (ESMP) in the construction and supervision contracts to ensure adequate level of implementation and transfer of responsibilities through supply chain.

Issue of Concern	Current practice	Potential impact	Mitigation measures
Social Assessment	Environmental assessment is undertaken through EIS prepared in line with National legislation requirements. EIS mostly assess environmental impacts, with minimal assessment of social and H&S risks and impacts.	Project-specific social risks not adequately identified, assessed and managed.	Based on the Framework ESMP, HAC should undertake the full social assessment of the Project and conduct socio-economic baseline studies, identify risks, control and mitigation measures and include them in the Project Specific ESMP and Land Acquisition and Resettlement Plan (LARP).
Community, Road and Traffic Safety, Biodiversity	EIS provides information that approximately 2.473.700,00 m3 will be needed for construction of highway and will require transport to site. Although the EIS provides a brief assessment of impact of construction works and material transfer on transport infrastructure and communities, the locations of borrow pits and quarries for about 1 million m3 of material is yet to be confirmed. Furthermore, transport routes and their impact on communities and transport infrastructure are yet to be defined and assessed. EIS also requires that transport infrastructure used during the Project be rehabilitated to a minimum of original functional conditions after completion of construction works on site. However, no zero-stage condition of the infrastructure has yet been undertaken.	Project-specific environmental (biodiversity), community safety, road and transport safety risks not adequately identified, assessed and managed. Infrastructure used during the Project left in the worse condition after the completion of Project, compared to original conditions	HAC should include requirements in Project Specific ESMP for the Contractor to prepare adequate management plans (e.g. borrow pits and spoil area plans, community safety, traffic management plans) which will ensure that all impacts are adequately assessed and mitigated in line with applicable National and EU legislation, Lenders requirements and other relevant good international industry practice. HAC should include requirements in Project Specific ESMP for the Contractor to provide relevant baseline data of together with condition of transport infrastructure prior to start of mobilization phase. Relevant baseline data should not be older than 6 months
Road Safety Audits	Based on domestic legislative and European norm 96/2008 EC, Road Safety Audits (RSA) should be conducted for Detailed Design stage, pre – operation and early – road operation stage. Contract between HAC and the Auditor is in place. However, the subject of the Contract given is only RSA during Detailed design stage,	Lack in road safety could lead to the increased number of road crashes. Consequently, road crashes could cause significant losses for society through road crashes costs.	HAC should secure Road Safety Audit to be conducted for the Detailed Design stage as well as for pre – opening and early – operation stage. Following the RSA there should be mandatory inclusion of economically viable safety improvements into the design.

Issue of Concern	Current practice	Potential impact	Mitigation measures
	no obligations for the Auditor regarding pre – operation and early – road operation stage.		A road safety inspection shall be carried out on road once operational, and if appropriate action plans developed for low cost remedial road safety measures.
Unexploded ordnance	HAC confirmed that demining in the areas of the future Project was undertaken by Croatian Action Center in 2004 and confirmation documents are available. However, EIS prepared in 2016, still recognizes areas along the alignment which are contaminated by unexploded ordnances, in line with information provided by the Croatian Mine Action Centre in October 2016. Main precondition for the use of this space is its demining.	OHS and Community Health and Safety risks related to unexploded ordnances.	HAC should coordinate process of removal of unexploded ordnances with relevant institutions (Armed Forces of the Republic of Croatia and/or relevant Ministries) and ensure that no works commence in the vicinity of mined areas before removal of all unexploded ordnances is undertaken (demining is complete). HAC should ensure that "Unexploded ordnances chance finds procedure" is a part of Project Specific Environmental and Social Management Plan and contractual obligation for the future Contractor.
Cultural Heritage	EIS recognizes that further investigation of archaeological sites needs to be undertaken at several locations along the alignment.	Risk of inadequate protection or damage of the cultural heritage.	HAC should ensure that investigation of all identified archaeological sites is performed before any commencement of construction works in subject areas. HAC should ensure that provisions for the continuous archaeological supervision during the execution of the earthworks are included in procurement documentation and same is provided during the Project. HAC should include requirements in Project Specific ESMP for the Contractor to prepare and implement Chance Find Procedure.
Stakeholder Engagement Plan	HAC has issued several project-related notifications to the media. However, the only public consultations that were conducted were organised by third parties, as envisaged by the local legislation.	Without a Stakeholder Engagement Plan there is a risk that transparent and meaningful consultations with project affected people and other stakeholders on the Project will not be organised in line with Lender's requirements.	HAC should implement (and regularly update) the Stakeholder Engagement Plan, including the Grievance Management Procedure in the improved capacity

12. Environmental & Social Management & Monitoring

Environmental and Social Management

Measures to manage the environmental and social effects of the Project will be included in Environmental and Social Management Plan prepared by HAC. These requirements will be included in the Tender Documents. Measures relating to public engagement are detailed in the Stakeholder Engagement Plan, and those remaining actions and commitments relating to the land acquisition are detailed in a Land Acquisition and Resettlement Plan. The key elements of the required mitigation measures have been summarised in the table above, and any steps which HAC must take are described in the Environmental and Social Action Plan.

The Contractor will then develop a Construction Environmental and Social Management Plan, to identify how the commitments will be addressed during Construction. This will draw together all the management requirements to minimise disturbance to environmental and social receptors during construction. The HAC will engage a Contractor to implement these on its behalf.

Environmental and Social Monitoring

During both construction and operation, certain activities, indicators and environmental and social resources will be monitored, in accordance with the National and EU legislation, Environmental Impact Study, permits, design and the EBRD and EIB requirements. State Inspections and Construction Supervision Engineers will be responsible for the monitoring, reporting and sanctioning of eventual non-compliances.

Monitoring and management actions for the stakeholder engagement and the land & resettlement planning are proposed in the SEP and LARP. There will also be an ongoing requirement for HAC and (during construction) the Contractor to monitor stakeholder, individuals and community grievances and take appropriate management action should trends be identified or key issues occur.

Monitoring reports will be produced by the Contractor during the construction work, which will be submitted to the HAC.

13. Information & Contact Details

Project preparation documents are available on the Croatian Motorways website (http://www.hac.hr) and the EBRD website (http://www.ebrd.com).

Contact details for the Project are: **Croatian Motorways Ltd.** Contact person: _____ Address: Širolina 4, Zagreb, Croatia Tel: + 385 1 46 94 444 E-mail: _____ website: www.hac.hr	**Contact details for the EBRD Regional Office in Zagreb are:** Zagreb Resident Office Miramarska 23, 3rd Floor 10000 Zagreb Croatia Tel: +385 1 6000 310 https://www.ebrd.com/croatia.html