ROAD REHABILITATION AND SAFETY PROJECT MAIN DESIGN FOR HEAVY MAINTENANCE OF THE STATE ROAD

IA 3

LOT 3: IA3, road section: Interchange Sremska Mitrovica – Interchange Ruma, from km 43+563 to km 57+313, L=13.750km

Contract ID: RRSP/CS3-RRD3-2/2016-12

ENVIRONMENTAL MANAGEMENT PLAN

Final

PREPARED BY:



Author:

Miroslav Stojanovic

Bsc. civ. Eng.

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ABBREVIATIONS

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AADT	Annual Average Daily Traffic		
CEP	Contractor's Environmental Plan		
EBRD	European Bank for Reconstruction and Development		
EIA	Environmental Impact Assessment		
EIB	European Investment Bank		
EMP	Environmental Management Plan		
HSE	Health, Safety and Environment		
IFIs	International Financing Institutions		
INC	Institute for Nature Conservation of the Republic of Serbia		
IPCM	Institute for Protection of Cultural Monuments of the Republic of Serbia		
MoEP	Ministry of Environmental Protection		
MoCTI	Ministry of Construction, Transport and Infrastructure		
PERS	Public Enterprise "Roads of Serbia"		
PSC	Project Supervision Consultant		
RE	Resident Engineer		
RRSP	Road Rehabilitation and Safety Project		
SE	Site Engineer		
SLMP	Safety Labour Management Plan		
SSIP	Site Specific Implementation Plan		
WB	The World Bank Group		
WMP	Waste Management Plan		
OP	Operational policy		
PIT	Project Implementation Team		

INTRODUCTION

The Environmental Management Plan has been prepared for the proposed Design for heavy road maintenance of the State Road IA class, No. 3 section: Interchange Sremska Mitrovica – Interchange Ruma in order to ensure application of good environmental practice and document compliance with the requirements of the International Financing Institutions (IFI's) which will finance this Project.

In accordance with the guidelines issued by IFIs, the project was classified as B Category of environmental risk, and it requires development of Environmental Management Plan (hereinafter referred to as EMP).

The Project Proponent is the Government of Serbia, acting through its Ministry of Construction, Transport and Infrastructure (MoCTI). Project implementing entity is Public Enterprise "Roads of Serbia" (PERS).

The aim of the EMP is to identify potential negative environmental impacts and management problems during the execution of construction works, as well as the necessary mitigation measures that the Contractor must apply. The key components of the EMP are: Environmental Mitigation Plan and Environmental Monitoring Plan .

The EMP analyses the rehabilitation phase and operational phase of the relevant section thus defining measures which are the obligation of the Contractor during the execution of rehabilitation works.

Design elaboration will be compliant with Serbian legislation, rules, regulations and provisions, as well as with the international conventions and protection guidelines, issued by the IFIs. According to the Project Implementation Plan, the aim of the project is increasing the usability and durability of the road, promoting traffic safety, including the requirements of local community (social aspect) and complying with the environmental requirements to the greatest extent given the circumstances of spatial limitations and the constraints arising from types of allowed constructive and traffic measures.

For the suggested road section, the Environmental Management Plan is focused on activities connected to scope of civil works related to urgent maintenance and eliminating negative environmental impacts and it will be a part of the civil works contract . The activities connected to the regular maintenance of the road section, even though they are not brought into focus of this plan, will be included in EMP for the sake of completeness. The preparation of this EMP was undertaken through theoretical studies and field investigations, including consultations with regional level representatives and local stakeholders. The EMP is based primarily on field investigations performed during April and May 2018.

SUMMARY

Project Description

Road Rehabilitation and Safety Project (RRSP) is the project in which IFIs (World Bank, European Investment Bank and European Bank for Reconstruction and Development) provide support to the Government of the Republic of Serbia in implementing the National Program for State Road Network Rehabilitation. This project represents the realization of the Government's program for the period from 2014 to 2019.

The main goal of the project is improving the conditions and traffic safety on the state road IA class, No.3 section: Interchange Sremska Mitrovica – Interchange Ruma.

Location Description

The subject section belongs to Srem administrative district located in the Autonomous Province of Vojvodina. The section Intersection Sremska Mitrovica - Intersection Ruma in length of 13.750 km (the left carriageway lane) belongs to the state road IA-3 (previously marked as M-1B)("Official Gazette" of RS, No. 93/2015). It represents the shortest route through Srem region, actually the direction of Corridor 10 connecting the southern part of Serbia with the border crossing with Croatia (Batrovci). Also, the subject section is a part of the Project envisaged for heavy maintenance within the Third Year of its implementation. All the chainages in the Terms of Reference are given in accordance with the new Reference system from December 2015.

According to the categorization that entered into force on November 13th, 2015 ("Official Gazette" RS 93/2015), the subject section belongs to the state road of IA Class No.3 (Belgrade - Ruma - Sremska Mitrovica – country's border with Croatia (Batovci)).



Figure 1 Location of the section Interchange Sremska Mitrovica - Interchange Ruma

The works planned by this design will be implemented within the right-of-way of the existing road. The project <u>neither entails resettlement and land acquisition as</u> <u>defined by Operational Policy (OP) 4.12</u>, nor long lasting disruptions to the natural environment and human settlements and activities.

Rehabilitation Works Description

The planned construction works will primarily relate to the strengthening of the existing carriageway structure, rehabilitation of the existing drainage system for the carriageway and road base drainage, as well as designing all the elements which prolong the durability of works and promote the traffic safety system.

The types of works planned mainly involve the reinforcement of the existing carriageway structure, in the existing dimensions of the carriageway structure with the existing, rehabilitated drainage system and design of all the elements which prolong the durability of executed works and promote traffic safety system and it is completely regulated by the provision (Article 69) of the Law on Roads ("Official Gazette of RS", No. 41/2018).

In accordance with the Terms of Reference and site visits, the design will specify the construction of appropriate solutions for rehabilitation and development of the structures in the road base. The width of the carriageway and bridge paths (traffic profile) will remain unchanged regarding their dimensions compared to the current state.

For the reconstruction of bridges no watercourse works are foreseen. The Design does not anticipate river beds regulation. The flow profile of watercourse will not be reduced.

Policy, Legal and Administrative Framework

The Ministry of Environmental Protection (MoEP) is the key institution in the Republic of Serbia responsible for formulation and implemention of environmental policy matters. The other aspects of environmental protection connected to road rehabilitation projects, were solved, among others, with the Institute for Nature Conservation of Vojvodina Province, Institute for Protection of Natural Monuments of Sremska Mitrovica and the Public Enterprise "Roads of Serbia" (PERS).

Environmental protection in the Republic of Serbia is regulated by various laws at the national and municipal levels as well as by statutes. <u>Environmental Impact</u> <u>Assessment is not required for road rehabilitation projects</u>, except in cases where the section passes through protected natural or cultural area.

On the basis of a decision issued by the Provincial Secretariat for Urban Planning and Environmental Protection (No. 140-501-375/2018-05 from March 6th, 2018), the observed road section is not located within the protected area for which the environmental protection procedure was conducted or initiated. Therefore, it <u>does</u> not require making the Environmental Impact Assessment (Appendix 6).

Lender requirements that are applied to all projects of road rehabilitation include the following Environmental Policies:

- Operational Policy OP (4.01) of Environmental Impact Assessment,
- European Investment Bank (EIB): Statement of Environmental and Social Principles and Standards (2008).

The World Bank and EIB require that the design complies with the Republic of Serbia national laws, EU standards and IFI's guidelines as noted above.

Baseline Conditions Assessed During Route Survey

The entire route is treated as an out-of-town with all the relevant characteristics.

There are 15 culverts (1 pipe, 5 arched, 6 slab and 3 combined) and 4 bridges on the sections.

This section is intersected by watercourses at the following locations:

- The Canal Cikas 45+447
- The Canal Konav 50+085
- The Canal Kudos 55+677

This section is intersected by railroad and roads of lower class at the following locations:

- Overpass at km 43+550
- Overpass at km 44+220
- Voganj overpass at km 49+250
- Overpass at km 52+684
- Overpass at km 57+313

Regarding the given section, where the road is located on the causeway, a dispersive drainage system was used, i.e. all water from the carriageway flows down the road shoulders and slopes to the surface of the terrain or the perimeter canals.

Regarding the cultural heritage and protected resources on the subject section, according to the data from the conditions of the Institute for Protection of Cultural Monuments of Sremska Mitrovica (No.413-07/17-03 from September 7th, 2017) there is one registered archaeological site "Mausoleum". The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance with the requirements stated in the Decision. The precise location of the archaeological site has not been precisely defined by the conditions of the Institute. Furthermore, there is no general map of it provided.

The Contractor is supposed to inform the competent institution about the date for the commencement of works.

According to the Conditions provided by the Institute for Nature Conservation of Vojvodina Province (No. 03-2046/2 from August 17th, 2017) the subject section does not pass through protected natural resources or through the habitat of strictly protected and protected species.

No point sources of noise and pollution are identified on the subject section. However, the only existing source is actually the aforementioned route as a linear source of noise and pollution.

The current traffic load (AADT) is 13429 vehicles per day on the subject section. The data were obtained from the PERS's website (automatic traffic counter marked as "NP" in 2017).¹

Summary of Environmental Impacts

The works on road rehabilitation on the road section Interchange Sremska Mitrovica - Interchange Ruma will have a smaller impact on the environment (B category of environmental protection). Most of the impacts are of a temporary character and they will disappear after the works on heavy maintenance, i.e. when road rehabilitation has been completed.

Heavy maintenance of the road will be performed exclusively on public areas, with no interference with the private property. In accordance with the provisions of the World Bank OP 4.12 (forced resettlement), the project does not require land acquisition, resettlement or long-term disturbance of human activities.

The EMP refers to the phase of execution of works and its implementation is a future obligation of the Contractor. During the execution of construction activities, there may be disruption of current traffic flow, movement of the inhabitants of the neighbouring settlements, reduced roadway safety, damages to access roads, noise production, dust, waste and air pollution, impact on soil, water, plant and animal life. Off-site activities include quarries, asphalt bases and borrow pits which may cause localized adverse impacts. Therefore, it is necessary to manage those works properly.

Environmental Management Plan

Environmental impacts of the project for heavy maintenance on the section Interchange Sremska Mitrovica - Interchange Ruma will be insignificant and reversible. Mitigation measures provided in the EMP, related to the design, road rehabilitation and operational phase, must be properly implemented. The EMP consists of the Environmental Mitigation Plan and Environmental Monitoring Plan. It is based on the types of environmental impact, their scope and duration.

During the rehabilitation, the Contractor will work according to the Contractor's Environmental Plan (CEP) based on the EMP.

JV BOTEK Bosphorus Technical Consulting Corp. & MHM-PROJEKT ltd. Novi Sad

¹ http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobracajnog-opterecenja-na-drzavnim-putevima-IA-reda.pdf

PERS is in charge of designing, supervision and execution of works applying the EMP.

Mitigation Plan

Impacts and proposed mitigation measures have been compiled into the Environmental Mitigation Plan (Appendix 1). It summarizes all the anticipated environmental impacts and its associated mitigation measures during the design, rehabilitation and operational phases. The plan makes a reference to the preliminary conditions issued by the authorized institutions (Institute for Protection of Cultural Monuments of Sremska Mitrovica No. 413-07/17-03 from September 7th, 2017; Institute for Nature Conservation of Vojvodina Province No. 03-2046/2 from August 17th, 2017; Provincial Secretariat for Urban Planning and Environmental Protection No.140-501-375/2018-05 from March 6th, 2018), laws and contract documentation, approximate location, time scope and responsibilities for its implementation and supervision.

Monitoring Plan

A Monitoring Plan for the proposed Project (Appendix 2) has been prepared. The main components of the Monitoring Plan are the following:

Defining the environmental issues that need to be followed and the means of verification:

- Specific areas, locations and parameters to be monitored;
- Applicable standards and criteria;
- Monitoring noise levels near populated areas;
- Monitoring material supply (verification of valid licenses);
- Duration, frequency and evaluation of monitoring costs, and
- Institutional responsibility for monitoring and supervision.

A monitoring control list is prepared on the basis of EMP and Monitoring Plan (Appendix 2). The list is used by the supervision engineer on the construction site. Signed control lists are submitted to PERS, which is responsible for monitoring and reporting.

Stakeholder Engagement – Information Disclosure, Consultation and Participation of Public

As requested by IFI's safeguard policy, public consultations will be held in the EMP preparation. The EMP and other project-related information will be disclosed to the public and made available to the local community. A detailed report on the public

consultation process will be shown in Appendix 5 of this document and it will contain a list of identified participants. Consultation with users will be made during the road rehabilitation stage, while all records of environmental and social issues, complaints received during consultation, site visits, and informal discussions, formal reports etc. will be monitored, recorded and kept in PERS Project office.

All problems associated with the subject section are recorded, based on official contacts and memos, as well as on the meetings with the representatives of local authorities. In order to complete the design, the Designer received the following from the relevant institutions:

- Spatial plan of the municipality of Ruma ("Official Gazette of the municipality of Ruma", No. 7/15);
- General Regulation Plan of ,,Interchange of Ruma" ("Official Gazette of the municipality of Ruma", No. 7/10, 10/10 and 24/15);
- General Regulation Plan of ,,Interchange of Ruma" ,,West" in Ruma ("Official Gazette of the municipality of Ruma", No. 20/16);
- General Regulation Plan ,,South 2" ("Official Gazette of the municipality of Ruma", No. 3/11 and 28/14);
- Amending and Supplementing the Spatial Plan of the area related to Infrastructure Corridor of the country's border with Croatia - Belgrade (Dobanovci) (Official Gazette of the Republic of Serbia, No. 147/2014) <u>http://www.rapp.gov.rs/infrastrukturni-sistemi/cid293-83222/prostorni-planpodrucja-infrastrukturnog-koridora-granica-hrvatske-beograd-dobanovci</u>

The Summary of Public Inspection

During the preparation of EMP and before the commencement of works, the public hearings were organized in accordance to the requirements of the Security policy of Security Council. The EMP and other information connected to the project were presented to public on November 23rd, 2018 in Sremska Mitrovica. The entire documentation was delivered to the municipalities, published on the website, placed on the PERS internet presentation and published in the media.

The public was informed through the local media about the time and place for holding hearings in public.

The consultations with the users were organized throughout the period of the execution of construction works. The Contractor will solve problems in the area of environmental protection, social issues and grievances which were recorded during the consultations, site visits, unofficial discussions, official letters and keep records thereon.

The grievance mechanism will be established in order to properly consider all the grievances of the local societies, apply the corrective measures and inform the party who lodged the grievance about the results. This is to be applied to all types of

grievances. The grievance form is in Appendix 4, and the printed versions will be available in the local community centers.

1. PROJECT DESCRIPTION

Road Rehabilitation and Safety Project – RRSP is a project of support of the international financial institutions (World Bank, European Investment Bank and European Bank for Reconstruction and Development) to the Government of the Republic of Serbia in implementing the National Program For Rehabilitation of the State Road Network. This project represents the realization of the Government program for the period from 2014 to 2019 and includes the following:

- improving the conditions of the state road network by rehabilitating around 1,100km of the existing roads,
- raising the safety level on the roads by applying measures for enhancing the traffic safety in all phases of Project implementation, and
- strengthening capacities and improving institutional coordination in the area of traffic safety by implementing greater number of different services.

The institution in charge of realization of the Project is Public Enterprise "Roads of Serbia" (hereinafter called PERS). Within PERS, a Project implementation team (PIT) was formed, which should conduct all the necessary activities for successfully management and completion of the Project, with the help of other professional departments in the company and in cooperation with the other interested institutions of the Government of the Republic of Serbia. The main goal of the project is increasing traffic safety on the state road IA3, section: Interchange Sremska Mitrovica – Interchange Ruma which should be achieved through:

- Rehabilitation of the estimated number of kilometers related to the existing roads,
- Raising the level of safety on the roads using different measures
- Implementation of various activities in all phases of Project Implementation, strengthening capacities and improvement of institutional coordination in the field of traffic safety in Serbia, along with modernization of road management and maintenance.

Section Description

The observed road section belongs to Srem administrative district located in the Autonomous Province of Vojvodina. The section Intersection Sremska Mitrovica - Intersection Ruma in length of 13.750 km (the left carriageway lane) belongs to the state road IA-3 (previously marked as M-1B) ("Official Gazette of RS", No. 93/2015). It represents the shortest route through Srem region, actually the direction of Corridor 10 connecting the southern part of Serbia with the border crossing with Croatia (Batrovci). Also, the subject section is a part of the Project envisaged for

heavy maintenance within the Third Year of its implementation. All the chainages in the Terms of Reference are given in accordance with the new Reference system from December 2015. An excerpt from the Reference system is given in Table 1.

According to the categorization that entered into force on November 13th, 2015 ("Official Gazette" RS 93/2015), the subject section belongs to the state road of IA Class No.3 (Belgrade - Ruma - Sremska Mitrovica – country's border with Croatia (Batrovci)).

Total:					13.625 (13.750**)		
1	0008	03010	0304	0305	Interchange of Sremska Mitrovica	Interchange of Ruma	13.625 (13.750**)
No.	Previous label of the section*	Section label	Label of the initial node	Label of the final node	Name of the initial node	Name of the final node	Length of the section (km)

* Label of the section according to the old reference system 2008/2009 (JV CPL- Nievelt)

** Length of the subsection which should be repaired

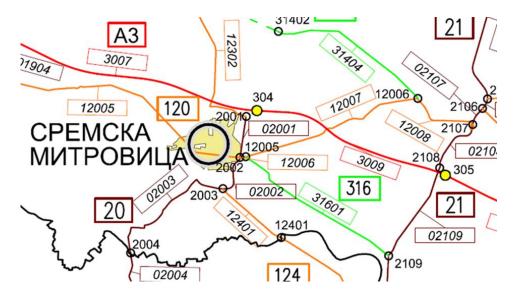


Figure 2 The location of the subject section according to the Road reference system in 2015

Figure 2. represents the position of the subject section within the Road reference system of the Republic of Serbia in 2015.



Figure 3 The scheme of the road section intended for rehabilitation (heavy maintenance)

Figure 3. represents a schematic presentation of the section intended for rehabilitation (heavy maintenance).

The works planned by this design will be implemented within the right-of-way of the existing road. The project <u>neither entails resettlement and land acquisition as</u> <u>defined by Operational Policy (OP) 4.12</u>, nor long lasting disruptions to the natural environment and human settlements and activities.

The beginning of the section starts 531 m after the node 0305 (interchange of Ruma) in the direction towards Sremska Mitrovica (Figure 4), while the end of the section is 656 m behind the node 0304 (interchange of Sremska Mitrovica) (Figure 5).



Figure 4 The beginning of the subject section



Figure 5 The end of the subject section

The subject of the Project is the left lane of the carriageway, observed in the direction of the chainage growth, at the defined length.

There are not settlements on the subject section.

Rehabilitation Works Description

Within the scope of the technical documentation of heavy maintenance of the section Sremska Mitrovica- Ruma, L = 13,750 km, it is not envisaged to widen the carriageway, but the existing width of carriageway is retained.

		Traffic lanes	Edge strip	Total	
Section	Overtaking lane (m)	Overtaking lane (m)	Overtaking lane (m)	(m)	carriageway width (m)
Сремска Митровица-Рума	3.75	3.75	2.5	0.5	11

Table 2. The	existing traffic half-profile
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The types of works planned mainly involve the reinforcement of the existing carriageway structure, in the existing dimensions of the carriageway structure with the existing, rehabilitated drainage system and design of all the elements which prolong the durability of executed works and promote traffic safety system and it is completely regulated by the provisions (Article 69) of the Law on roads ("Official Gazette RS", no. 41/2018).

In accordance with the Terms of Reference and the site visits, the design will foresee the construction of appropriate solutions for rehabilitation and development of the structures in the road base. The width of carriageway and bridge paths (traffic profile) remains unchanged regarding their dimensions compared to the current state. The project will also include controlled drainage of water in front of and behind the bridge, as well as the solution of water passage from road shoulders to bridge.

Within the reconstruction works on the subject section, no watercourse works are foreseen. Regarding works on heavy maintenance, the river beds regulation will not be performed. At no point will the flow profile of the watercourse be reduced.

The project will also include arranging rest areas, i.e. access to certain commercial/tourist facilities. An analysis of the arrangement or removal of unregulated access roads on the highway will also be carried out. Some of the existing culverts will be extended or new ones will be implemented if the current ones are significantly damaged.

The section is on a low slope, so drainage of atmospheric water from the carriageway is carried out over the road shoulders along the embankment base, as well as through drain flumes placed in the median. The drain flume in the median is made of precast concrete elements, and collected atmospheric water is discharged from the drain flumes to manholes from which it is finally released into natural recipients or culverts.

Taking into consideration hydrotechnical works on the subject section, it is not foreseen to arrange watercourses or to change the drainage system, but only to improve the existing system in order to return it to functional state.

Traffic regulation in the zone of works will be performed:

- by using traffic signs;
- manually (a traffic control person);

• by using a traffic light.

Traffic signalization whose meaning is not in accordance with the traffic conditions in the work zone is adequately removed or covered by the appropriate non-reflecting tape.

Traffic signalization in the zone of works is placed on the road and has to be in a proper condition while the works are taking place. Traffic equipment is placed on the road after the other traffic signalization is produced.

Traffic signalization in the zone of works is completely removed from the road immediately after the works have been executed and the latest within 24 hours after the completion of works and restoration of the initial traffic regime. The location on the road where the first traffic sign I-19 "construction zone"is placed depends on the length, sight distance and visibility of the warning zone.

It is essential to have a traffic engineer on call in the construction site at every moment that will take care about traffic signalization and traffic safety in the construction site zone. During the holidays, or at the time of the execution of works, it is necessary to hire a person who will control the signalization system (ensure that the wind will not knock over the vertical signs, that the horizontal signalization is always visible...) and who will react appropriately in case of any irregularities.

2. THE ASSESSMENT OF THE BASIC CONDITIONS OF THE ROUTE DURING THE RESEARCH

The entire route is treated as an out-of-town with all the relevant characteristics.



Figure 6 Typical parts of the subject section

There are 15 culverts (1 pipe, 5 arched, 6 slab and 3 combined) and 4 bridges on the sections.

The route is located at grade intersection of watercourses at the following locations:

- The Canal Cikas at km 45+447 (Figure 7.)
- Voganj Overpass at km 49+250 (Figure 8.)
- The Canal Konav at km 50+085 (Figure 9.)
- The Canal Kudos at km 55+677 (Figure 10.)



Figure 7 The Canal Cikas at km 45+ 477



Figure 8 Voganj Overpass at km 49+250



Figure 9 The Canal Konav at km 50+085



Figure 10 The Canal Kudos at km 55+ 677

In general, the bridges are in a good condition. Drainage is based on the flow of water along the curb, through the flume and drains (Voganj Overpass) directly into

the base (plinth) of the bridges. The drains are in a good condition, while flumes are in a poor condition.

Introduction of a longitudinal pipeline regarding Voganj overpass will be foreseen in order to collect and rechannel outflow of water into the recipient or the bridge base. The arrangement of the outflow into the recipient will also be envisaged in a way of covering the slopes of the recipient at the outflow site. Flumes placed in the ends of the bridge will be reconstructed.

This section is intersected by roads of lower class at the following locations:

- Overpass at km 43+550
- Overpass at km 44+200
- Overpass at km 52+684
- Overpass at km 57+313



Figure 11 Overpass at km 43+550



Figure 12 Overpass at km 44+200



Figure 13 Overpass at km 52+684



Figure 14 Overpass at km 57+313

Regarding the subject section, a dispersive drainage system was used, i.e. all water from the carriageway flows down the road shoulders and slopes to the surface of the terrain or the perimeter canals. Concrete drain flumes made of precast concrete elements represent the main element of the drainage system in central reservation which discharge collected outflow into manholes with drain grids.



Figure 15 Central reservation of the subject section

Culverts have ceratin function to release canal intake of atmospheric water keeping it until this water evoporates or discharging this water through certain amelioration canals.

Drainage system of bridges is focused on the flow of water along the curb which is evacuated to the recipient through the curbs.

In general, flumes are in poor condition. Majority of flumes are clogged and structurally damaged. Dislocation of certain flume elements is recorded. Degradation of concrete regarding the inlet structure while discharging the outflow into the flume is pointed out.



Figure 16 Flumes on the subject section

Regarding the cultural heritage and protected resources on the subject section, according to the data from the conditions of the Institute for Protection of Cultural Monuments of Sremska Mitrovica, there is one registered archaeological site "Mausoleum". The precise location of the archaeological site has not been precisely

defined by the conditions of the Institute. Furthermore, there is no general map of it provided. The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance with the requirements stated in the Decision.

There are two rest areas identified along the observed sections:

- Rest area at km 51+300 on the right side of the carriageway (Figure 17.)
- Rest area at km 52+250 on the left side of the carriageway (Figure 18.)



Figure 17 Rest area at km 51+300



Figure 18 Rest area at km 52+250

No point sources of noise and pollution are identified on the subject section. However, the only existing source is actually the aforementioned route as a linear source of noise and pollution.

The current traffic load (AADT) is 13429 vehicles per day on the subject section. The data were obtained from the PERS's website (automatic traffic counter marked as "NP" in 2017).²

Settlements

Sremska Mitrovica is located in the northwestern part of Serbia and in the southwestern part of Vojvodina, merging with three different morphological units: Srem plain, Macva plain and Fruska Gora hill chain.

Sremska Mitrovica has a geographical position at the latitude of 44° 58' N and longitude of 19° 36' E and extends along the southern edge of Srem loess terrace and alluvial fan of the left bank of the Sava River, at an average altitude of 82 m.

The city settlement is actually a conurbation of three settlements: Sremska Mitrovica as a central urban area, neighboring Macvanska Mitrovica on the right bank of the Sava River and the largest village according to the number of inhabitants in Serbia, Lacarak, in the west. According to the census in 2011, there were 37,751 inhabitants.

The Municipality of Sremska Mitrovica is located in AP Vojvodina and belongs to Srem district. The center of the municipality and whole district is the city of Sremska Mitrovica. There are more populated settlements in comparison to other local selfgovernments in Vojvodina. There are 26 settlements and two towns: Besenovacki Prnjavor, Besenovo, Bosut, Veliki Radinci, Grgurevci, Divos, Zasavica I, Zasavica II, Jarak, Kuzmin, Lacarak- suburban area, Lezimir, Mandjelos, Martinci, Macvanska Mitrovica- urban area, Nocaj, Ravnje, Radenkovic, Salas Nocajski, Sremska Mitrovica- urban area, Sremska Raca, Stara Bingula, Calma, Sasinci, Sisatovac and Suljam.

Ruma is located in the northwestern part of Serbia and southwestern part of Vojvodina, merging with three different morphological units: Srem plain, Macva plain and Fruska Gora hill chain.

It is located between the Danube and Sava rivers, at the foot of Fruska Gora Mountain. The area that belongs to Ruma is 582 square kilometers. A special geographical curiosity is that the 45th parallel passes through it, and only 15 km to the west is away from the 20th Meridian. The latitude for the city center is 111 m. According to the census in 2011, there are 30,076 inhabitants.

²http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobracajnog-opterecenja-na-drzavnim-putevima-IA-reda.pdf

The municipality of Ruma covers a large area of the middle and southern Srem and occupies the area of 582 km² (43943 hectares are related to the agricultural area and 5.975 hectares are covered by forest). The center of the municipality is the city of Ruma. The municipality of Ruma consists of 17 settlements: Budjanovci, Vitojevci, Voganj, Grabovci, Dobrinci, Donji Petrovci, Zarkovac, Klenak, Kraljevci, Mali Radinci, Nikinci, Pavlovci, Platicevo, Putinci, Stejanovci and Hrtkovci.

The subject section goes through the following cadastral municipalities:

- CM Sremska Mitrovica
- CM Mandjelos
- CM Sasinci
- CM Voganj
- CM Ruma

The section Intersection Sremska Mitrovica - Intersection Ruma does not pass through populated areas.

Natural Resources and Cultural Heritage

In the vicinity of the route that belongs to the section of the state road IA class, No. 3 Intersection Sremska Mitrovica - Intersection Ruma based on the conditions of the Institute for Protection of Cultural Monuments of Sremska Mitrovica (No.413-07/17-03 from September 7th, 2017) there is one registered archaeological site "Mausoleum". The precise location of the archaeological site has not been precisely defined by the conditions of the Institute. Furthermore, there is no general map of it provided.

The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance with the requirements stated in the Decision.

The Contractor is supposed to inform the competent institution about the date for the commencement of works.

According to the Conditions provided by the Institute for Nature Conservation of Vojvodina Province (No. 03-2046/2 from August 17th, 2017) the subject section does not pass through protected natural resources or through the habitat of strictly protected and protected species.

Railway traffic

The section Intersection Sremska Mitrovica - Intersection Ruma is located at grade intersection with railroad and local road at an approximate chainage of km 49+243.



Figure 19 Voganj overpass at the chainage of km 49+243.

Generally, the bridge is in a good condition. Drainage is carried out through the drains, which are in good condition too, while the discharge of collected outflow is directly into the base (plinth) of the bridge.

The width of carriageway and bridge paths (traffic profile) remains unchanged regarding their dimensions compared to the current state. The project will also include controlled drainage of water in front of and behind the bridge, as well as the solution of water passage from road shoulders to bridge.

Watercourses

The section Sremska Mitrovica - Ruma 1 is intersected by the following amelioration canals:

- The Canal Cikas at the chainage of km 45+447
- The Canal Konav at the chainage of km 50+085
- The Canal Kudos at the chainage of km 55+677

It is important to point out that rehabilitation of bridges over watercourses will not jeopardize the riverbed (will not reduce the flowrate during the works).



Figure 20 The Canal Cikas at km 45+447



Figure 21 The Canal Konav at km 50+085



Figure 22 The Canal Kudos at km 55+667

These canals are part of the amelioration system of PWC VodeVojvodine. It is necessary to clean canals in the bridge zone from a surplus of certain materials.

Culverts

Based on geodetic survey (or base) and site visit, there are 15 (1 pipe, 5 arched, 6 slab and 3 combined) on the sections.

The list of recorded culverts on the subject section are given in Table .

No.	Chainage	Function	Shape	Cross section	Material
1	43+687	Discharge of water related to amelioration canal	Slab	2500x3000	Concrete
2	44+296	Discharge of atmospheric water	Slab	1500x1500	Concrete
3	44+411	Discharge of atmospheric water	Pipe	Ø1000	Concrete pipe
4	44+827	Discharge of atmospheric water	Slab; below the road base is arched	1500x1500; H=1000mm	Concrete
5	46+735	Discharge of atmospheric water	Slab	1500x1500	Concrete
6	47+114	Discharge of atmospheric water	Arched	H=1100mm	Concrete
7	47+597	Discharge of atmospheric water	Slab	1500x1500	Concrete
8	47+874	Discharge of atmospheric water	Arched	H=1100mm	Concrete
9	48+406	Discharge of water related to amelioration canal	Slab	1500x1500	Concrete
10	50+919	Discharge of atmospheric water	Arched	H=1200mm	Concrete
11	51+748	Discharge of water related to amelioration canal	Slab	2000x2000	Concrete
12	53+430	Discharge of water related to amelioration canal	Slab; below the road base is	2000x1500; H=1000mm	Concrete

Table 7. The list of recorded culverts on the subject section

			arched		
13	54+641	Discharge of atmospheric water into the amelioration canal	Arched	H=1200mm	Concrete
14	56+622	Discharge of atmospheric water	Arched	H=1500mm	Concrete
15	57+018	Discharge of atmospheric water into the amelioration canal	Slab; below the road base is arched	1500x1200; H=1000mm	Concrete

Culverts have ceratin function to release canal intake of atmospheric water keeping it until this water evoporates, as well as discharging this water through certain amelioration canals through road base.

In general, culverts are in a good condition. Some structural damages that occur are mainly related to damage to the inlet-outlet structures, not the culvert in the road base. Minor degradation of concrete has been identified.



Figure 23 Slab culvert at km 43+867



Figure 24 Arched culvert at km 47+874



Figure 25 Combined culvert at km 53+430

Culvert interventions will mainly include the clearance of culverts, rehabilitation of degraded concrete surfaces and fixing minor structural damages.

A grade-separated intersection with roads of lower class

There are four grade intersections on the subject section (low class roads go over the subject section) at the following locations:

- Overpass at km 43+550 (Figure 26.Error! Reference source not found.)
- Overpass at km 44+200 (Figure 27.Error! Reference source not found.)
- Overpass at km 52+684 (Figure 28.Error! Reference source not found.)
- Overpass at km 57+313 (Figure 29.Error! Reference source not found.)



Figure 26 Overpass at km 43+ 550



Figure 27 Overpass at km 44+220



Figure 28 Overpass at km 52+684



Figure 29 Overpass at km 57+313

Air

There are not current resources of air pollution within the observed section Intersection Sremska Mitrovica - Intersection Ruma. The data on the values of air pollution which were measured on the observed corridor were not available.

On the basis of traffic counting, it is not predicted that after the enhanced maintenance and rehabilitation of the given section, air pollution volume will be increased. In the phase of rehabilitation of the road, it is expected to increase the concentration of pollutants in the air, but just temporary.

Noise

Data on measured noise values on the observed corridor were not available. It is expected to have a temporary increase in the noise level during the rehabilitation phase of the road.

3. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Relevant Institutions

The relevant Ministry of Environmental Protection of the Republic of Serbia is responsible for producing and implementing the environmental policy.

Other aspects of environmental protection connected to the projects of road rehabilitation were solved, among other with Provincial Secretariat for Urban Planning and Environmental Protection, Institute for Nature Conservation of Vojvodina Province, Institute for Protection of Cultural Monuments of Sremska Mitrovica and PE "Roads of Serbia" (PERS).

For the needs of this design, the following opinions were obtained:

- Institute for Protection of Cultural Monuments of Sremska Mitrovica No. 413-07/17-03 from September 7th, 2017
- Institute for Nature Conservation of Vojvodina Province No. 03-2046/2 from August 17th, 2017
- Provincial Secretariat for Urban Planning and Environmental Protection, No. 140-501-375/2018-05 from March 6th, 2018

Existing Serbian Legislation

Environmental protection in the Republic of Serbia is regulated by various laws and by-laws at national and municipal level. The environmental legislation in force in Serbia is summarized in Appendix 3.

The Procedure of Environmental Impact Assessment in the Republic of Serbia

In the juridical system of the Republic of Serbia, the EIA procedure is regulated by the Law on Environmental Impact Assessment ("Official Gazette of RS" Nos. 135/2004, 36/2009), which is completely in accordance with the European EIA Directive - 85/337/EEC. Therefore, the EIA study is not necessary for road rehabilitation projects, except for those sections which are located within or in the vicinity of natural and cultural protected areas. In this case the proponent of the design needs to submit the request for making a decision about the need for making the Environmental Impact Assessment to the relevant ministry. Depending on the estimation and significance of potential environmental impacts, the decision is made about whether it is necessary to conduct the full procedure of Environmental Impact Assessment.

The request for giving the opinion about the need for making a study of environmental impact assessment with other accompanying documentation was given to the Provincial Secretariat for Urban Planning and Environmental Protection.

The decision states that projects of urgent maintenance, rehabilitation and elimination of road damages according to the criteria stated in the Regulation, it is not necessary to conduct an environmental impact assessment.

The approval was obtained from Provincial Secretariat for Urban Planning and Environmental Protection (No. 140-501-375/2018-05 dated from March 6th, 2018) that <u>it is not necessary to conduct the EIA study.</u>

On the basis of the aforementioned criteria, this project does not require the EIA study. However, <u>the policy of the World Bank requires the development of a</u> <u>partial evaluation - EIA and a preparation of the specific EMP for the construction site.</u>

Relevant International Financial Institutions (IFIs) – Policies and Statements

IFIs request that the following requirements must be applied to any works:

- World Bank: Operational Policy OP 4.01, Environmental Impact Assessment, which requires a partial Environmental Impact Study and development of site specific EMPs for projects belonging to Category B;
- EIB: Statement of Environmental and Social Principles and Standards (2008).

EIB requires that the project complies with the Republic of Serbia national laws and EU standards. However, the regulations of the Republic of Serbia do not provide the design for EMP for this type of investment, while the World Bank policy requires a partial EIA and EMP for each section.

4. SUMMARY OF ENVIRONMENTAL IMPACTS

The following table presents a short overview of environmental impacts foreseen by the design:

Impact	Significance	Comment
Impacts on the use of land /settlements	Low	There will be no land expropriation during the implementation of the design according to OP 4.01.
underground and surface water	Low	Due to low amount of water that can come to the recipient by drainage, the consequential impact is minimal or negligible
air quality	Low	Temporary impact during the execution of works
flora and fauna (protected areas and species)	Low	Temporary impact during the execution of works
noise	Low	Temporary impact during the execution of works
access to/intersections of the main road and the local roads	Low	Rehabilitation won't have a negative impact on the existing intersections.
soil management	Low	With the application of appropriate measures of waste management
waste management	Low	According to the plan of waste and waste water management
cumulative impacts	Moderate / Low	Temporarily, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only

The works on road rehabilitation on the section Interchange Sremska Mitrovica – Interchange Ruma will have a smaller impact on the environment (B category of the environmental protection). Most impacts are temporary and will disappear after the completion of works on heavy maintenance i.e. road rehabilitation.

The road maintenance works will be performed entirely on public land, without any collision with private properties. In respect with the provisions of WB OP 4.12 (Involuntary Resettlement), the Design does not require any acquisition of land, resettlement or long-term disturbance of human activities.

The EMP relates to the road rehabilitation phase. It is a part of the relevant agreement for implementation and future commitment of the Contractor. The following problems may occur during the rehabilitation works: disturbance in traffic and movement of residents from local settlements, decreased road safety, damages on access roads, noise pollution, dust emission, inefficient waste disposal, air pollution, impact on the soil, water, flora and fauna. The works outside the construction site area, such as the works in a quarry, asphalt plant and borrow-pits may have local negative impact and must therefore be managed properly.

Overview of Key Impacts

The EMP focuses more on the heavy maintenance phase, while activities on the regular maintenance will not be explained in a detail in this EMP, but will only be presented in order to have an overall view of the situation.

Possible temporary impacts which may occur as a consequence of construction activities, among other things consist of:

- disturbance in the regular traffic flow;
- road safety;
- damages of the access roads
- inconveniences caused by noise, waste and dust;
- emission of gases;
- potential impact on soil and water;
- short-term disturbance of flora and fauna,
- and temporary disturbance of nearby settlements during the execution of construction and operative activities.

Noise and Air Pollution in Residential Areas

The quality of air on the site may cause temporary deterioration due to dust caused by traffic on the construction site, and the main pollutants are increased levels of nitrogen oxides (NOx) and Sulphur oxides (SOx), which are found in the exhaust fumes from the construction machinery. Dust can be collected on vegetation and surrounding structures and can partially cause adverse impacts.

In the phase of the execution of works (during the period when certain types of work are expected to have increased dust emission), the construction site needs to be wet with the aim of reducing dust emission. It is necessary to have at least two tanks of water on the construction site, one of which is a backup one. In this way the "idle time" will be avoided when the tanks are refilled with water.

It is obligatory to cover the truckload.

Noise caused by rehabilitation works is temporary. Since there are no significant residential buildings near the road, it can be concluded that the noise prevention barriers will not be used in this project. The sound barriers can be placed only on places where it is "reasonable" and "useful". This is not the case with this road rehabilitation project.

Possible Water Contamination

Water pollution may occur on the construction site, on the locations where the equipment, vehicles and machinery are washed and also on the parking lots. The contaminated water shall be filtered through a gravity oil-water separator. The Contractor shall use absorbent materials and remove the contaminated layer of soil, which is then transported to an adequate location in accordance with the Law on Water.

The Contractor is obliged to wash the vehicles in the registered vehicle washing place. The possible soil and watercourses pollution will be avoided near construction sites in this way.

Potential Cumulative Impacts

The execution of works on heavy maintenance on the section Interchange Sremska Mitrovica – Interchange Ruma could have some temporary cumulative impacts (noise, air pollution, water and soil pollution), and they will not cause a significant impact on the environmental conditions.

If the EMP is applied properly, all negative impacts on people and environment will be reduced as a result of cumulative actions.

Other Impacts

- Social impacts: in the construction phase, social-economic conflicts are taken into consideration, including health and safety. All temporary locations used for activities that have short-term impact are included, such as quarries and borrow-pits, locations for stockpiling surplus soil and asphalt plants are included here. Impact of these types of activities is expected to cease when the Project is ended and the Contractor leaves the subject location;
- Pollution: during the heavy maintenance works, a steady, but not significant emission of pollutants is expected. These include: air pollution, water pollution, soil pollution, noise and vibrations;
- Solid waste: activities on the heavy road maintenance are expected to generate a certain amount of solid waste, which is collected on the site and transported onto a landfill, outside the site construction zone.

There are several Waste Management Plans for the subject section (Municipality of Ruma and Municipality of Sremska Mitrovica):

- Local Waste Management Plan of the municipality of Ruma³
- Local Waste Management Plan of the city of Sremska Mitrovica⁴
- Regional Waste Management Plan of the municipalities: Indjija, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova⁵
- Regional Waste Management Plan of the municipalities: Sabac and Sremska Mitrovica⁶

5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the section Intersection Sremska Mitrovica - Intersection Ruma will be insignificant and reversible. Mitigation measures provided in the EMP, relating to the design, road rehabilitation and operational phase, must be carried out appropriately. The EMP consists of the Mitigation Plan and Monitoring Plan. It is based on the types of environmental impact, their scope and duration. PERS manages the design, supervision and the contractor in the implementation of EMP.

A. MITIGATION PLAN

The environmental impacts and suggested mitigation measures are included in the Environmental Mitigation Plan (Appendix 1). This plan sums up all the expected impacts on the environment and connects them to the mitigation measures during the design, rehabilitation and operational phase. The Plan conforms to the conditions received from the authorized institutions (Institute for Nature Conservation of Vojvodina Province, Institute for the Protection of Cultural Monuments of Sremska Mitrovica and PWC Vode Vojvodine (in a rehabilitation phase)), law and contractual documentation, approximate location, time scope and responsibilities for its implementation and supervision.

The Contractor's Management

The recommendations and proposed measures for mitigating the negative impact on the environment, as shown in Appendix 1, represent the commitment of the Contractor. Mitigation measures will be included in the project and the manner of rehabilitation, and their costs will be included in the price of rehabilitation works.

The EMP is a part of the works program and the Contractor shall apply it through qualified and experienced staff that will be responsible for fulfilling the requests

³ <u>http://www.ruma.rs/portal2/jupgrade/dokumenta/ekrazvoj/Lokalni%20plan%20upravljanja%20otpadom%20Ruma.pdf</u>

⁴ http://www.sepa.gov.rs/download/UpravOtpad/RPUO_IndjijalrigRumaSremskiKarlovciSidStaraPazova.pdf

⁵ http://www.sepa.gov.rs/download/UpravOtpad/SremskaMitrovicaLPUO.pdf

⁶ http://www.sepa.gov.rs/download/UpravOtpad/RPUO_SabacSremskaMitrovica.pdf

connected to the environmental protection from EMP. The Contractor and his subcontractors will work entirely in compliance with the laws of the Republic of Serbia, EU standards and the requests of the Creditor.

The Contractor of works will use this document to check the compliance with the EMP. The Contractor's obligation is to include the cost of Mitigation measures into the price of its total costs.

The Contractor is obliged to confirm that:

- The cost of EMP is included in the price;
- The Contractor has a qualified and experienced person in his team, who will be responsible for compliance of the EMP and the environment.

The Contractor and external cooperation are in accordance with the laws of the Republic of Serbia, EU standards and the requirements of the Creditor.

Site Organization Plan

Contractor shall carry out and follow the Site Organization Plan. Conditions issued by PINP shall be included in the Site Organization Plan. Location of the facilities (warehouses, workshops, asphalt and concrete plant etc.) shall be approved by an engineer who is always present. The following conditions have to be met when selecting the location and organizing the site:

- Temporary locations for storing the construction and other material and equipment must be outside the coastal area of the Kudos, Cikas and Konav canals and area with high vegetation and limited only to the duration of the works;
- Temporary or permanent locations must be provided (the existing organized communal facilities/ landfills) for disposal and deposing muck and other waste in any form, as well as communal waste produced during the works. Waste disposal/dumping in the Canal Kudos, Cikas and Konav zone or smaller temporary watercourses, as well as on the agricultural land shall be prohibited. In order to choose the landfill location on the subject section (municipality of Ruma and Sremska Mitrovica), use the following Waste Managament Plan:
 - Local Waste Management Plan of the municipality of Ruma⁷
 - Local Waste Management Plan of the city of Sremska Mitrovica⁸
 - Regional Waste Management Plan of the municipalities: Indjija, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova⁹

⁷ <u>http://www.ruma.rs/portal2/jupgrade/dokumenta/ekrazvoj/Lokalni%20plan%20upravljanja%20otpadom%20Ruma.pdf</u>

⁸ http://www.sepa.gov.rs/download/UpravOtpad/RPUO_IndjijalrigRumaSremskiKarlovciSidStaraPazova.pdf

⁹ http://www.sepa.gov.rs/download/UpravOtpad/SremskaMitrovicaLPUO.pdf

- Regional Waste Management Plan of the municipalities: Sabac and Sremska Mitrovica¹⁰;
- After the completion of the works, all areas that have been degraded in any way by road rehabilitation works must be rehabilitated as soon as possible (levelling and resoiling degraded surfaces up to the level and condition in which this area was found before the commencement of works);
- During the works, the planned road sections and corridors around it must be followed, so that the earthworks and machinery do not affect the surrounding areas.
- During the works on the road that is located in the immediate visinity of the canals Cikas, Kudus and Konav or smaller temporary watercourses, the banks and littoral vegetation should be preserved as much as possible, in other words it is forbidden to destroy and the wild species and disturb their habitats.
- During the execution of works, it is forbidden to dispose and leave any kind of waste neither in the zone of canals (Kudos, Cikas and Konav) nor in any other watercourse.
- In the zone of crossing the road over the watercourse, where it is necessary to make arrangements in accordance with the design; the use of stones and other natural materials should be anticipated thus largely avoiding the use of concrete on the banks and river beds watercourses;
- Vehicle and machinery servicing on the road section shall be prohibited. In case of a road traffic accident resulting in oil or service fluids spill (removing the contaminated soil layer, and then levelling and humusing the surface), the road area must be cleaned, rehabiliated and reinstated;
- The works must be performed only during the day from 7 am to 5 pm on the parts where the section is located in a populated area to minimize the impact of noise from local construction machines and vehicles;
- The installation of protective barriers, pedestrian crossings and passageways should be foreseen on places where it is useful, especially at locations near the existing settlements;
- Maintain the maximum level of communal hygiene throughout the works along the entire route. Define the locations for placement of containers for temporary disposal of waste;
- The area for Contractor's facilities must be of the smallest possible size, to avoid unnecessary removal of vegetation;
- All Contractor's facilities should be fenced appropriately;
- Appropriate drainage of the construction site must be provided. Asphalt areas including locations used for parking lot, workshops and fuel storages must be drained toward the oil-water separator;

¹⁰ http://www.sepa.gov.rs/download/UpravOtpad/RPUO_SabacSremskaMitrovica.pdf

- Sanitary waste water and polluted water must be treated before water is discharged into the recipient (surface water flow system), in compliance with the Law on Waters (Official Gazette of RS, no. 30/2010, 93/2012 μ 101/2016);
- Oil storage area should be at least 20 m away from the watercourse.
- If more than 5000 liters of oil is stored at the construction site, it should be placed in closed reservoirs on the concrete surface which can hold up to 110% of the reservoir capacity;
- All workshops must have oil and water separators;
- The Contractor must have trained staff, which is competent to handle oil and remove the consequences of an accidental spillage;
- Waste oil, oil filters and fuel must be stored on safe locations (in closed reservoirs on the concrete base). When the site is ready to be closed, all contaminated soil must be excavated and replaced with a new layer of soil;
- Removed material is to be stockpiled into appropriate sizes in accordance with the requirements for their management and re-usage;
- Limit the amount of excavation to reduce soil erosion. The Contractor should provide protection measures to prevent land erosion;
- Apply a methodology for the protection and conservation of soil from the areas susceptible to erosion, in order to reduce the runoff of atmospheric water carrying erosive material from the location;
- Excavations and machinery works must be avoided when the soil is damp;
- Upon the completion of works, machinery, construction material, containers and all other equipment must be removed in due time;

Environmental management plan during the heavy maintenance

Bearing in mind all the identified impacts, it is necessary for the Contractor to prepare and later consciously apply CEP during the project duration in order to ensure compliance with the requirements of the legislation and the Creditor.

The contractor is required to have a qualified and experienced person in his/her team, who will be responsible for coherence between the works, the environment and the Environmental Management Plan. For this part of the work on the construction site, the presence of a responsible person is mandatory on a daily basis. Public Enterprise "Roads of Serbia" will independently monitor the works, and if any irregularity is noticed, it will be transmitted to continuously present Supervision, and then to the Contractor.

Contractor's environmental plan (CEP) includes the following:

Извођечев план заштите животне средине (СЕР) обухвата следеће:

• <u>Site Management Plan</u>. CEP should consist of the procedures for setting up and functioning of a construction site with a view in order to preserve the local community and natural resources;

- Constructin site Organization Plan and the details about proposed measures should indicate the environmental impact caused by their placement. Description and arrangement of areas, with maintenance equipment and oil and lubricant storage facilities, including the distance from water areas:
- Oil and Fuel Storage Management Plan. CEP should cover all the procedures for storing, transporting and using oil and fuel, refueling the facilities and machines, procedures for decreasing the risk of water and soil pollution. All kinds of oil and fuel should be stored in the secondary storages whose capacity is at least 110 % and each spill should be cleaned immediately. Fuel tanks will have the equipment for the treatment of spillage in order to have it cleaned as soon as possible in the case of spillage. All types of spills will be reported in compliance with the Plan which should be made by the Contractor. A short training of workers should be organized as a 'continuous training' as well as after each accident;
- Waste Management Plan. Disposal of waste materials; All the waste materials from the construction site, including barrels, wood, sand and gravel, cement bags, etc. must be disposed in an appropriate manner. If there is no possibility for recycling, incurring some reasonable costs, these materials should be transported to the approved landfill and deposited there. Hazardous waste will be stored and removed from the site after demobilization, in accordance with the Waste management law ("Off. Gazette RS", No. 36/2009, 88/2010 and 14/2016). CEP should cover the aspects of waste management, including the application of practical standards, such as reduction, re-usage and recycling. CEP is to define the final location for disposing all types of waste and show that it has been done in accordance with the law and good waste management practice. In order to choose the landfill location on the subject section (municipality of Ruma and Sremska Mitrovica), use the following Waste Managament Plan:
 - Local Waste Management Plan of the municipality of Ruma¹¹
 - Local Waste Management Plan of the city of Sremska Mitrovica¹²
 - Regional Waste Management Plan of the municipalities: Indijia, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova¹³
 - Regional Waste Management Plan of the municipalities: Sabac and 0 Sremska Mitrovica¹⁴;

The waste management plan will include, at least, details of temporary waste disposal, waste transportation and pre-treatment process that precede the final disposal or recycling. Licensed/approved organizations must be used for collecting and storing solid and liquid waste. All types of

http://www.ruma.rs/portal2/jupgrade/dokumenta/ekrazvoj/Lokalni%20plan%20upravljanja%20otpadom%20Ruma.pdf

¹² http://www.sepa.gov.rs/download/UpravOtpad/RPUO_IndjijaIrigRumaSremskiKarlovciSidStaraPazova.pdf

 ¹³ http://www.sepa.gov.rs/download/UpravOtpad/SremskaMitrovicaLPUO.pdf
 ¹⁴ http://www.sepa.gov.rs/download/UpravOtpad/RPUO_SabacSremskaMitrovica.pdf

waste leaving the site must be controlled and recorded. As part of the Plan, the Contractor shall provide chain-of-responsibility forms for the waste that leaves the site. Therefore, waste controller shall keep one copy of the form, and the driver shall have a copy, to make sure and get the signature on the final landfill. The Contractor shall keep all records for audit purposes and as a proof that this project applies the best practice and complies with the legal regulations.

- <u>Sewage and Waste Water Management Plan</u> in other words, procurement of sanitary units and appropriate system for collecting and discharging waste waters in order to avoid the pollution of watercourses;
- <u>Soil Management Plan</u> must define measures to minimize the impact of wind and water on the landfills, measures to reduce topsoil fertility depletion, time scopes, transport roads and landfills;
- <u>Noise</u> all the equipment must have a license and must be approved in accordance with the EU standards. This applies to all machinery, vehicles and sites where noise and vibrations affect the noise-sensitive receptors. In accordance with the Law on Protection against Environmental Noise (RS Official Gazette No 36/2009 and 88/2010), the Contractor is responsible for ensuring the noise and vibrations do not affect the local community. Even though there is no possibility that the noise and vibrations represent a problem due to a large distance between the construction site and the communities, the Contractor shall limit his works to a period of daylight (from 7 am to 7 pm), so that there is no reason for the people from the local community to report any kind of night activities as disturbances;
- Dust Emission Reduction Plan should have the water wetting schedule for the access roads and the settlements nearby, which are located along the road that is being rehabilitated, as well as a list of machinery that is to be used. This applies to all construction sites and roads for materials transportation. During the works, when dust may form, the Contractor shall monitor the conditions on construction site and application of measures to control dust emissions, which include reduced traffic during road rehabilitation works and wetting the exposed surfaces. It is necessary to have at least two tanks of water on the construction site, one of which is a backup one. In such a way the "idle time" will be avoided when the tanks are refilled with water;
- <u>Plan showing the location of the proposed borrow pit</u> as well as the rehabilitation measures to be implemented for the areas of borrow-pits and access roads when the project is finished;
- <u>Emergency Response Plan</u>. CEP sets out the procedures for reacting in case of accidents or large incidents, to protect people, property and natural resources. It is necessary to provide the equipment to be brought on the site to minimize the effects of the spillage;
- <u>Recultivation Plan</u>: cleaning and recultivation of the construction site and removal of Contractor's facilities. The contractor is responsible for clearing

the construction site. This includes the removal of all waste material and any kind of contaminated soil. In accordance with the Law on Waste Management (RS Official Gazette No 36/2009, 88/2010 and 14/2016), the Contractor shall develop a plan for handover, selling or removal of all vehicles and machinery, to remove them from them construction site. All construction sites and work areas will be rehabilitated, in order to be reinstated as much as possible. This includes stabilization and landscaping of all sites. In compliance with the Law on Environmental Protection (RS Official Gazette No 135/2004, 36/2009 – st.law, 72/2009 – st.law, 43/2011-CC decision and 14/2016), when the works are completed, waste must not remain on the construction site. If waste is not removed by the Contractor, PERS is entitled to withhold payment and organize cleaning of the area and then deduct the cleaning costs and administrative costs from the final payment.

Plan of Environmental Grievances (<u>grievance mechanisms and organization</u>) which will show how local community and third parties affected by the project define complaints which are the consequence of rehabilitation and to whom these complaints should be addressed (e.g. through conversations, consultations etc.) (see Appendix 4, Project Grievance Mechanism);

Safety

The contractor should identify potential risks before the commencement of works. The emergency response provisions should include Construction Site Safety Plan, which includes a proposal for a contact person available in the event of an accident. Site Safety Plan is submitted to the Project Supervision Consultant for approval one week before the commencement of the works.

- The Contractor shall ensure that drugs and alcohol are not used on the construction site;
- The Contractor should include a provision for safe working environment and safety measures and personal protective equipment (PPE) for all workers, including gloves, hard hats, goggles, ear protection and safety footwear in his Site Safety Plan;
- The Construction Site Safety Plan should include a provision for first aid to be administered on the site and a trained person must be engaged in compliance with the Law on Occupational Health and Safety (RS Official Gazette No 101/2005, 91/2015 and 113/2017-st.law);
- The Contractor shall provide to his workers potable water supply, toilets and water supply for bathing;
- Safety Labour Management Plan (SLMP) prepared by PERS, is required to ensure health and safety provisions during the works on heavy maintenance;

• The Contractor shall perform all project activities following the SLMP, all Serbian laws and by-laws regarding health and safety.

PERS and the Contractor are responsible for reporting on and investigating any incidents.

Due to the increased number of vehicles on the roads through populated places, safety of local residents must be considered. The Contractor shall ensure that traffic passing through populated places is managed safely.

Contractor shall provide the following:

- Safe maintenance of all trucks and equipment;
- Appropriate training and responsible behavior of all drivers and machine operators (prescribed in the Contractor's Site Safety Plan and health and occupational safety at site);
- Ensuring that all truck load which may create dust emissions is covered and secured (e.g. excavated soil and sand);
- The Contractor will have instant removal from site of a driver who disregards any of the conditions regarding the safety of the local community;
- Speed limits will be controlled.

Before the works start, the Contractor shall submit all the above listed plans to PERS Sector for Investments for their approval. After the works are completed, the Contractor shall reinstate the location where the project works were executed into its original condition.

Operational Phase

Concerning the road operational phase, special attention must be paid to safety of pedestrians, by using measures for traffic deceleration in the vicinity of schools and populated areas, improving road signs and markings, keeping a record of traffic accidents that are reocurring on some locations, and marking them as "black spots". Regular road maintenance consists of the following: grass mowing, cleaning the drainage system, road patching and various repairs and regular checks and maintenance of drainage structures. Seasonal maintenance, regular maintenance of safety characteristics and road signs shall be performed as needed. Primary road maintenance, which includes asphalting and major repairs, is usually planned for a period of a few years.

B. MONITORING PLAN

Monitoring plan is prepared in relation to the proposed Design (APPENDIX 2). Basic components of the Monitoring Plan are the following:

- Defining the environmental issues which should be monitored and means of verification;
- Specific areas, locations and parameters to be monitored;
- Valid standards and criteria;
- Monitoring noise levels near populated areas;
- Monitoring material supply (verification of valid licenses);
- Duration, frequency and evaluation of monitoring costs, and
- Institutional responsibility for monitoring and supervision.

A monitoring control list is prepared on the basis of EMP and Monitoring Plan (Appendix 2). The list is used by the supervision engineer on the construction site. Signed control lists are submitted to PERS, which is responsible for compliance monitoring and reporting.

PERS will have a Database of grievances, listing the information on complaints received from local communities and other interested parties. This includes: type of grievance, place, time, actions to be taken to resolve the grievance and the final outcome.

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS

Project Implementation

Public Enterprise "Roads of Serbia" - PERS is the institution responsible for implementing the project in accordance with the EMP and Mitigation Plan. Day-today project implementation and monitoring its compliance is the responsibility of the Project Supervision Consultant.

Before the commencement of works on this section, PERS will submit to the Bank for their approval this part of a specific EMP.

The Contractor will provide the results of "zero monitoring" prior to the start of the earthworks, during the mobilization stage.

The Project Proponent shall do the following to ensure that the Contractor implements the proposed mitigation measures in the construction phase:

 Clearly state in the tender and contract documentation the requirements from the Contractor of works to prepare Contractor's Environmental plan – (CEP) and take all steps to mitigate ecological effects as stated in the Environmental Mitigation Plan (APPENDIX 1) (Appendix to Contract specifications);

- П. The Contractor should not be compensated for the costs of the required mitigation measures and monitoring activities in the form of a specific item in the total price, except for the analysis of the quality of water and noise measuring. The Contractor should consider including these costs in the other items from the Bill of Quantities. The actual costs of the analysis of water quality and noise measuring will be paid to the Contractor as part of a specific item in the Bill of Quantities. Failure to follow the requested environmental mitigation measures on the Contractor's part will result in penalizing the Contractor in the form of negative points. Negative points have been established as a measure to stimulate the Contractor to perform his obligations in an organized and timely manner and perform his duty with a high degree of excellence. Negative points consist of two elements numerical and financial. Each negative point is connected to a sum, representing a permanent reduction in payment for the determined nonconformances in contractual obligations. The number of negative points earned has a cumulative effect. Should the Contractor receive more than a certain number of negative points stated in the Contract, he will not be allowed to participate in PERS tenders in the next two years. Also, if the Contractor is awarded a certain number of negative points, the employer has the right to break the contract. Monetary value of each negative point and the deadlines for other possible actions by the employer must be clearly stated in the contract. Explanation for the application of these two measures - fees for specific costs and penalties for non-compliance should provide the implementation of all the requested environmental mitigation measures and monitoring activities.
- III. The Contractor must be explicitly requested to employ an environmental expert. The Contractor will be responsible for implementing environmental mitigation measures during road rehabilitation works and should employ an environmental expert who will supervise the implementation of Contractor's environmental responsibilities. This person will coordinate the work of the Contractor, PERS and the relevant ministry. The Contractor will appoint a committee to deal with every complaint received during the project implementation in cooperation with PERS. In the course of the project, PERS will monitor if the Contractor complies with EMP provisions. The Project Supervision Consultant is advised to employ an environmental expert (have experience of civil engineering and environmental management), to assist in environmental monitoring.

Upon completion of the Project, PERS will be responsible for the use and maintenance of the road. Routine and occasional monitoring will be done according to the plan and monitoring program.

PERS shall also be responsible for the following:

- Implementation of the requests for environmental protection provided by: State environmental authorities, IFIs and other institutions, Law on Environmental Protection (RS Official Gazette No 135/2004, 36/2009st.law, 72/2009 – st. law, 43/2011 –CC decision and 14/2016);
- Implementation of the requests for environmental protection through Contractor's specifications;
- Project supervision via consulting services for supervision and project implementation;
- Environmental monitoring supervision via consulting services for environmental monitoring;
- Preparation of final environmental reports.

Before the beginning of the road rehabilitation works, the Contractor will provide a proposal for environmental protection, including the safety of persons involved in the works, as a part of the EMP. The proposal will be reviewed by PERS in order to be accepted.

With respect to that, particular emphasis must be placed on:

- Taking all reasonable steps to protect the environment during the commencement and completion of site works, so as to avoid damage of property or disturbance to the people, resulting from the existence of a construction site,
- Maintaining safe conditions for all persons entitled to be on site, and
- Providing lighting, security guard, fences, warning signs and traffic controls, aiming to protect the works and other property, but also public safety and interest.

MoEP will have the authority to stop the works directly if the performance is not in accordance with the environmental standards and regulations. The inspection will then inform PERS about the suspension. The Design will be amended subsequently with public disclosure feedback.

Reporting Procedures

Public disclosure and the presentation of EMP will be held and the report shall be submitted within EMP.

The Contractor will prepare, as quarterly progress reports, the reports for PERS, which would present all the mitigation measures and measures for environmental protection along with the anticipated activities for monitoring, which were performed

during the reporting period. The Contractor will take due care of the quality of the environment, in accordance with Mitigation Plan and Monitoring Plan, which form an integral part of the EMP and will provide reports to PERS. In case of any accidents or environmental threats, there will be immediate reporting about these events. The Contractor shall inform the project manager and local authorities immediately after the accident. If the project manager is not available, the Contractor shall inform PERS about the accident.

The grievance mechanism will be implemented to ensure that the complaints from local communities are appropriately addressed, corrective measures taken and complainants informed about the outcome. This applies to the complaints of all interested parties. The grievance form is shown in the APPENDIX 4, while hard copies will be available local community center.

6. STAKEHOLDER ENGAGEMENT – INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

As requested by IFI safeguard policy, public consultations were held regarding the EMP preparation. EMP and other project-related information were disclosed to the public and made available to the local community.

A detailed report on the public consultation process is shown in APPENDIX 4 to this document and contains a list of participants identified, which will be updated accordingly.

Consultation with users will be made during the road rehabilitation stage, while all the records of environmental and social issues, complaints received during consultation, site visits, informal discussions, formal reports etc. will be monitored, recorded and kept in PERS Project office.

Before the commencement of works, PERS provided information using the following:

- Newspaper articles in one of the national and one of the local media
- Posters on the main notice board in all local community offices of communities potentially at risk,
- Radio announcements on traffic diversions,
- Providing contact with the person responsible and nominated for working with the local communities.

A grievance mechanism will be implemented to ensure that the complaints from local communities are appropriately addressed, corrective measures taken and complainants informed about the outcome. This is applied to the complaints of all

interested parties. The grievance form is shown in the Appendix 4, while hard copies will be available in local community centers.

The Report on Public Consultation is presented in Appendix 5 to this EMP.

7. REFERENCES

- Environmental Assessment No 25, Environmental Management Plans, World Bank Environment Department, January 1999.
- Roads and the Environment: A Handbook, World Bank Environment Department,
- EIB, Environmental and Social Practices Handbook, Environmental and Social Office, version 2 24/02/2010.
- EBRD, Environmental and Social Policy 2008.
- EIB, Environmental and Social Principles and Standards (2008)
- EMP for the rehabilitation of roads, bridges and tunnels, as part of the World Bank project, Road Management and Traffic Safety, Republika Srpska, Roads Directorate, Banja Luka, 2001.
- Environmental Assessment Report and EMP for the Serbian Transport Rehabilitation Project, report ref: E866, project title: YF – Transport Rehabilitation Project – Br. P075207, document date November 30th, 2003.

APPENDIX 1

MITIGATION PLAN

Phase	Issue	Mitigation measures	Responsibility		Comments
			Implementation	Implementation	
Pre-construction		Main Design Phase		, ,	
	Following the environmental protection procedure	The Designer obtained and implemented the conditions from the relevant institutions regarding the environmental protection (Provincial Secretariat for Urban Planning and Environmental Protection, Nature Conservation of Vojvodina Province and Institute for Cultural Monuments Protection of Sremska Mitrovica) in order to avoid environmental risks during the heavy maintenance.	PERS / Main Design Designer	Technical control / PERS	
	The choice of the location for the Contractor facilities and a construction site organization	 The location must be approved by PERS: It is forbidden to form the location (construction site) for temporary disposal i.e. storage of required construction and other material and storage, in the coastal zone of canals (Kudos, Konav and Cikas), as well as the space with high vegetation. The locations will be chosen in a way that has no impact on the environment and the local community (noise, dust, vibrations). To minimize the size of the facilities to minimize the unnecessary removal of vegetation Have the sanitary waste water treated before the water is discharged into the surface water system Paved areas, including parking areas, workshops and fuel storages must be located at a distance larger than 20 m away from the watercourse. To avoid mechanical topsoil degradation. To limit the scope of the excavations to mitigate possible soil erosion. To avoid excavation and machine operations in damp site conditions. 	PERS/ Contractor	Supervising authority / PERS	
	Selection of the location for a temporary settlement, in the vicinity of or within the existing settlements, public health impact and sociological circumstances.	 minimum distance must be kept (buffer zone) between the site and the nearest populated area influence of the local conditions must be taken into account (wind) to avoid or minimize harmful effects the contractor's EMP defines health and safety and environmental measures independent water and electricity supply, in addition to a medical service station with a trained employee on the construction site must be planned 	Contractor	PERS	
	Safety of pedestrians and suitable crossings	Plan regarding the safety of pedestrians while crossing certain places marked as pedestrian crossings must be provided with ramps and structures that allow the use of wheelchairs, pushcarts, bicycles and baby strollers.	Main Design Designer	Technical control / PERS	

	Informing stakeholders	Details of the proposed road section, access points and safety features will be disclosed at the location of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered will be attached to the Main Design.	PERS/ Main Design Designer	
Construction		Construction site induction		
	Safety on the construction site	All workers and visitors to the site shall be given a health and safety induction and instructed how to to use PPE properly.	The Contractor's expert for H&S and environmental issues	
	 requirements have been met: Site Organization Plan Sewerage and Wastewater Managemet Complaints procedure Soil Management Plan Dust Management Plan A plan indicating the location of borrow is completed 	-pits, and measures for recultivation of borrow pits and access roads after the project Plan, in line with the Law on Waste Management (RS Official Gazette No 36/2009,	Contractor	S
Construction		Material supply		
	Asphalt plant dust, fumes, health and safety effects, ecosystem disturbance	Use the existing asphalt plants, requirement for official approval or valid operating license	Asphalt plant	S
	Quarry: dust, health and safety of workers, ecosystem disturbance	Use the existing quarries, requirement for official approval or valid operating license	Quarry	(
	sand and gravel borrow-pits: river bed disturbance, quality of water, ecosystem disturbance	Use the existing borrow pits or buy material from licensed separation facilities, requirement for official approval or valid operating license	Contractor or gravel and sand separation facility	sa /

Technical control / PERS	
-	
Supervising authority	
Supervising authority / PERS	
Asphalt plant / Supervising Authority	
Quarry / Supervising Authority	Bid suppliier / Approved supplier
Contractor or gravel and sand separation facility / Supervising Authority	

	Concrete plant Dust, fumes, health and safety effects, ecosystem disturbance	Use the existing concrete plants or buy concrete from licensed suppliers. The material should have appropriate quality attestations	Concrete plant	
<u>Construction</u>		Material transportation		
	Dust, asphalt, fumes	All trucks need to be covered	Truck operator	ļ
	Stone / Dust	wet / covered truck load	Truck operator	ę
	Sand, Gravel, dust	wet / covered truck load	Truck operator	ę
	Cement, concrete	Remove the fresh concrete which was negligently spilled from the mixer from the transport roads within 6 hours.	Truck operator	5
	Traffic noise exhaust fumes and road congestion	Obeying the working hours (desirable from 9 am to 2 pm); the use of alternative routes to reduce the usage of the main roads to the minimum. Adequate temporary road signalization	Person in charge of transportation / truck operator	t C
Construction		Construction site		
	negative impact of noise on workers and local community and fauna	 To limit the activities to daylight working hours (without works between 8 pm and 7 am) or work during the specified period, but with the approval of the population and management; Use of construction machines with equipment that reduces sound; ensure the maximum functionality of machines by regular inspections (periodic) or an exceptional technical inspection of vehicles and equipment; To use equipment with noise mufflers, licensed and approved in accordance with the EU standards To use noise barriers for the works that produce noise for more than one day on the same location 	Contractor	\$
	Dust	 Measures to be introduces: avoiding/reducing to a minimum dust emission, wetting/ spraying the construction site construction site access, material landfills during loading / discharging activities covering the vehicles which carry dusty materials; spraying/cleaning wheels on the vehicles; limiting the speed of movement for vehicles, Cleaning the construction site. 	Contractor	;

Concrete plant / Supervising authority	
Truck operator / Supervising Authority	
Person in charge of transportation / truck operator / Supervising Authority	
Supervising Authority	
Supervising Authority	

Vibrations	To limit activities to daylight working hours (without works between 8 pm and 7 am) or work during the aforementioned period, upon obtaining the permission from the inhabitants and management. Locate the equipment for earthworks as far away as possible from the vibration-sensitive receptors.	Contractor
Traffic disruption during construction activities	 Traffic Management Plan with appropriate measures for traffic diversions that can be easily noted and followed; Including traffic police assistance if necessary Traffic Management Plan which will define a speed limit for the construction vehicles and organize traffic in such a way that populated areas are avoided as much as possible. During the execution of works, the existing road network is maximally used. Avoid the construction of new temporary roads, which would increase the habitat fragmentation To inform the local community about the works planned 	Contractor
Reduced access to roadside activities	Provide an alternative access to roadside activities at all times.	Contractor
Safety of vehicles and pedestrians when / where there are no construction activities	Lighting and well-defined safety signs and protection measures.	Contractor
Soil and water pollution from improper material storage, management and use	 To organize and cover material storage areas; To isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers; Washing the trucks for concrete and asphalt, as well as washing other machinery is to be done exclusively in registered car washes To organize the construction site so as to minimize the risk of generating sediments and accumulating waste water, which could cause pollution of the surrounding soil and water (consider situations such as drainage for atmospheric water, waste water collected from the structures on the construction site such as the structure for washing the wheels). The Soil Management Plan must be prepared to control removal, storage and re-use of humus. To use local controlled measures to prevent sediment flowing into surface water and drainage canals. Some of the measures include physical obstacles such as fences for sediments, checking barriers, mulch barriers, e.g. protective leaves cover, geotextile, rock groynes, and sediment basin), marking them in order to make the roadt slope optimal and the slope edges sharp (steep), To prevent sediment flowing into surface water, slope of the soil and protection form wind erosion must also be considered, by installing fences, covers etc. 	Contractor

Supervising Authority	
Supervising Authority/ PERS	
Supervising Authority/ PERS	
Supervising Authority/ PERS	
Supervising Authority	

Soil and water pollution from improper material storage, management and use	 To dispose waste material at a location protected from washing out, on a marked location, if not on the site, then on an authorized landfill. In order to choose the landfill location on the subject section (municipality of Ruma and Sremska Mitrovica), use the following Waste Managament Plan: Local Waste Management Plan of the municipality of Ruma¹⁵ Local Waste Management Plan of the city of Sremska Mitrovica¹⁶ Regional Waste Management Plan of the municipalities: Indjija, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova¹⁷ Regional Waste Management Plan of the municipalities: Sabac and Sremska Mitrovica¹⁸; Storage of materials in accordance with the best international practice (IFC, EHS - General Guidelines). Apply additional measures for storing hazardous waste (such as secondary containment, limiting the access, providing PPE equipment etc.) to prevent negative effects on the workers, construction site staff, environment or the public. Using and labelling the containers planned for waste collection, as well as the areas for disposing different types of waste (hazardous and nonhazardous). Transport the waste in marked vehicles designed for waste transport, to minimize the risk of releasing substances (hazardous and nonhazardous substances) as well as remains that can be carried by the wind. To train the drivers in handling and disposal of the load (waste) and its 	Contractor
Potential contamination of soil and water from improper maintenance and fueling of equipment	 degree of hazard. Disposing of and handling lubricants, fuel and solvents is to be performed exclusively in the secured area and storage with concrete base; To ensure proper loading of fuel and equipment maintenance; To collect all waste and dispose it on authorized recycling locations 	Contractor
Safety of workers	 provide workers with safety instructions and PPE provide a safe alternative traffic flow 	Contractor
soft/hard landscaping	 Take measures to gradually establish vegetation again by covering crops and natural endemic species and monitoring their effectiveness. In places where the initial planting failed, plant replacements will be made. Avoid invasive and allergenic species 	Contractor

http://www.ruma.rs/portal2/jupgrade/dokumenta/ekrazvoj/Lokalni%20plan%20upravljanja%20otpadom%20Ruma.pdf
 http://www.sepa.gov.rs/download/UpravOtpad/RPUO_IndjijalrigRumaSremskiKarlovciSidStaraPazova.pdf
 http://www.sepa.gov.rs/download/UpravOtpad/SremskaMitrovicaLPUO.pdf
 http://www.sepa.gov.rs/download/UpravOtpad/RPUO_SabacSremskaMitrovica.pdf

Supervising Authority	
Supervising Authority	
Supervising Authority	
Supervising Authority	

	Possibility of an archaeological site existence	In case the Contractor comes across an archaeological site (special attention is paid to the parts of the section indicated under the conditions of the Institute for Protection of Cultural Monuments of Sremska Mitrovica), he is obliged to stop the works immediately and inform the relevant Institute for Protection of Cultural Monuments and PERS.	Contractor
<u>Operation</u>		Special measures defined by the conditions of releva	ant institutons
	Institute for Nature Conservation of Vojvodina Province	 For surface coarse use materials that provide noise and vibration reduction and allow efficient drainage of water from the surface of the carriageway; To smooth down all terrain after completion of work to reduce the possibility of spreading weeds; Construction and communal waste generated during the works are collected in containers designed for this purpose and regularly evacuated in cooperation with the competent communal service. Lubricant and fuel required for the supply of mechanization must be transported, stored and handled, respecting the protection measures prescribed by the statutory regulation related to hazardous substances; In case of accidental spill of pollutants in the habitat of protected and strictly protected wild species of plants, animals and fungi or in the zone of influence, the polluted soil layer must be removed immediately and placed in a package that can be emptied only on the landfill made for this purpose, outside natural habitats. Form a new, unpolluted layer of land on that place. Requirements for the revitalization of terrestrial and aquatic habitats should be obtained from this institute. 	

Supervising Authority	

	Institute for Protection of Cultural Monuments of Sremska Mitrovica	 In the zone of the aforementioned archaeological site "Mausoleum", storage of materials and creation of landfills is prohibited, as well as spill and disposal of waste and hazardous substances either temporarily or permanently Presence of experts of the competent Institute is obligatory during the performance of all earth works on the archaeological site. Regarding the archaeological site, it is obligatory to respect Art. 109, paragraph 1. of the Law on Cultural Property which states: If during the execution works certain remains of archaeological origin are found out, the contractor is obliged to suspend further works immediately and without any delay notify the Institute for Protection of Cultural Monuments of Sremska Mitrovica to ensure that the findings are not destroyed and damaged. They should be preserved in the place and position in which they are discovered. The investor is obliged to suspend the works in order to investigate the location if he finds an archaeological site or archaeological remains of exceptional importance; It is the duty of the Investor to provide funds for research, safekeeping, monitoring, protection and preservation of the discovered remains which require previous protection The investor is obliged to notify the Institute for Protection of Cultural Monuments of Sremska Mitrovica about the date of commencement of works. 			
Operation		Maintenance			
	negative impact of noise on local residents, animals and workers	 limit activities to daylight working hours (no works between 8pm and 7am or in accordance with the public consent); use the equipment with noise mufflers installed 	Contractor of works on maintenance	Contractor of works on maintenance/PERS	
		 apply the best engineering practice in handling and safe storage of lubricants, fuel and oil in secured storages; ensure proper loading of fuel and maintenance of equipment; 			It should be specified in the contract
	Potential air, water and soil pollution: dust, exhaust fumes, spilt fuel, oil and lubricants	 collect and dispose all waste in accordance with the Law on Waste Disposal; properly organize and cover the areas for material storage; isolate concrete and asphalt works from the watercourse by using sealed formwork; washing the vehicles and construction machines is exclusively done in registered car washes 	Contractor of works on maintenance	Contractor of works on maintenance/PERS	maintenance documentation - Technical Specifications for the performance of maintenance works

Safety of workers	 provide workers with safety instructions and PPE; Organize safe traffic bypass using alternative roads and appropriate traffic signage. All the workers and visitors to the construction site will be introduced to the basics of environmental protection and safety measures and protection at work and will be given instructions for using the Personal Protective Equipment. 	Contractor of works on maintenance
Maintenance	 Regularly maintain curbs; Mow and maintain grass and take it to the landfill; Regularly clean drainage structures (gullies) and dispose waste material on specially designated landfill; Regularly clean the road surface, Fill in the holes, joints and cracks; The remains of asphalt after works should be transported and stored on an appropriate landfill designated for construction materials; Clean the road surfaces regularly and timely, as well as the surrounding road structures in case of a traffic accident or overturning of tanks or other trucks; Make repairs 	Contractor of works on maintenance
Increased vehicle speed	install speed limit signs	Contractor of works on maintenance
Erosion, rockfall, hazardous situation	 install suitable warning signs (rockfall, landslide, wet or slippery conditions, dangerous curve, animal or pedestrian crossing, school, slow traffic zone, merging), reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility; warning signs on locations considered appropriate in line with good engineering practice or as agreed with the authorities 	Contractor of works on maintenance

Contractor of works on maintenance/PERS	
Contractor of works on maintenance/PERS	
Contractor of works on maintenance/PERS	It should be specified in TS in the part about maintenance works
Contractor of works on maintenance/PERS	

APPENDIX 2

MONITORING PLAN (FOLLOWING THE IMPACTS)

Phase	Which parameters to	Location where the parameter is	How the parameters are monitored?	When the parameter is monitored (frequency or continuous)	Why are the parameters monitored? (randomly)	Institutional responsibility
	be monitored?	monitored	/types of monitoring equipment			Implementation
Construction			Materia	Il supply		
Asphalt plant	Possession of an official approval or valid (operating) license	Asphalt plant	Inspection / Supervising engineer	Prior to the commencement of works		Plant manager
Quarry	Possession of an official approval or valid (operating) license	Quarry	Inspection / Supervising engineer	Prior to the commencement of works	Ensure compliance of the plant with the environmental protection and health and safety at work	Quarry manager
Sand and gravel borrow-pit	Possession of an official approval or valid (operating) license	Sand and gravel borrow- pit	Inspection / Supervising engineer	Prior to the commencement of works		Borrow-pit or separation facility manager
Concrete plant	Possession of an official approval or valid (operating) license	Concrete plant	Inspection / Supervising engineer	Prior to the commencement of works		Manager of a concrete plant
Construction			Material	Transport		
Asphalt	Covered truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Stone	Covered or wet truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision

Phase	Which parameters to be monitored?	Location where the parameter is	How the parameters are monitored?	When the parameter is monitored (frequency or continuous)	Why are the parameters monitored?	Institutional responsibility
		monitored	/types of monitoring equipment		(randomly)	Implementation
Sand and gravel	Covered or wetted truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Concrete plant	Removing fresh concrete that was accidentally spilled from the mixer on the transport roads within 6 hours	Construction Site	Supervising engineer	Unannounced inspections during the works	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Traffic guidance	Chosen hours and routes	Construction Site	Supervision	Unannounced inspections during the works	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Construction			Constru	ction site		
Adverse effects of noise on the workers and local residents	Noise levels	Construction site, nearby houses along the construction site	equipment – manual equipment for analyzing (detecting the level of noise) with the software for its application	 Once, at the beginning of the project quarterly, due to grievances. If the tracking results are not satisfactory, it is to be prepared on a monthly level 	Ensure the compliance of the plant with the health and safety and environmental requirements.	Contractor's supervision (monitoring)
Water and soil pollution resulting from improper material storage, management and use	soil and water quality (suspended solids, oils, PH values, conductivity)	Watercourses near the storage places	 Unannounced sampling; analysis in a certified laboratory possessing the required equipment 	Monitoring should be performed prior to the construction (at the reference point upstream from the construction site) and once during the rehabilitation works. If the tracking results are not satisfactory, it should be performed at a monthly basis until the works on the site are finished	Minimal disruptions of traffic	Contractor's supervision (monitoring)
Dust	Air pollution (solid particles)	On and near the construction site, quarry, inhabited settlements	Inspection and visual observation	Unannounced inspections during the delivery of materials and construction	Ensure the compliance of the plant with the health and safety and environmental requirements.	Contractor's supervision (monitoring)

Phase	Which parameters to	Location where the parameter is	How the parameters are monitored?	When the parameter is monitored	Why are the parameters monitored?	Institutional responsibility	
	be monitored?	monitored	/types of monitoring equipment	(frequency or continuous)	monitored? (randomly)	Implementation	
Vibrations	Limited time of the activities	Construction Site	Supervision	Unannounced inspections during the active works and due to grievances	Ensure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision (monitoring)	
Traffic disruption during the activities on the construction works	The existence of the Traffic Management Plan and traffic pattern	On the construction site and area nearby it	Inspection; supervision	 Prior to the commencement of works; once a week in the periods with the largest amount of works and calm periods when the quantity of activities is not the highest 	Minimal disruptions of traffic	Contractor's supervision	
Reduced access to roadside activities	alternative access provided	Construction Site	Supervision	Random checks at least once a week during construction site activities	Minimal disruptions of traffic	Contractor's supervision	
Safety of vehicles and pedestrians where there are no construction activities	visibility and suitability	On the construction site and area nearby it	Observation	Random checks at least once a week at evening hours	Ensure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision	
safety of workers	PPE; bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the works.	Ensure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision	
<u>Operation</u>	Maintenance						
Negative effect of noise on the workers and local residents	Noise levels	Construction Site; nearby houses	equipment – manual equipment for analyzing (detecting the level of noise) with the software for its application	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS	

Phase	Which parameters to	Location where the parameter is	How the parameters are monitored?	monitored?	Why are the parameters monitored? (randomly)	Institutional responsibility
	be monitored?	monitored	/types of monitoring equipment	(frequency or continuous)		Implementation
Vibrations	Limited time of activities	Construction Site	Supervision	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS
Safety of workers	PPE; bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS
Period of Use			Road	safety		
Increasing the speed of vehicles	The conditions of traffic signs, the vehicle speed	Road section included in the design	Visual observation; Speed detection	During the activities, announced	Ensure safe and economical traffic flow	Contractor of works on maintenance; Traffic police
erosion, rockfall and hazardous situations	The condition of danger warning signs	Road section included in the design	Visual observation	During the activities	Ensure safe and economical traffic flow	Contractor of works on maintenance, tracking the impact (monitoring)

1. General		
Is the project compliant with all the requirements (taking account of agreed action plans, exemptions or derogations)?	Yes 🖬 No 🖬	If no, please provide details of any material non-compliances:
Is the project compliant with all applicable environmental and social laws and regulations?	Yes 🖵 No 🗖	If no, please provide details of any material non-compliances:
Are there any accidents or incidents that have caused damage to the environment, brought about injuries or fatalities, affected workers, local communities or cultural property? Has it created liabilities for the company?	Yes 🗖 No 🗖	If yes, please describe, including details of actions to repair and prev
Are there any changes to environment, social, labor or health and safety laws or regulations that have materially affected the company?	Yes 🗖 No 🗖	If yes, please describe:
How many inspections were carried out by the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of
How many inspections were carried out by the health and safety authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of
How many inspections were carried out by from the labor authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of
Have these visits resulted in any penalties, fines and/or corrective action plans?	Yes 🗆 No ם	If yes, please describe, including status of implementing corrective a
Has the Company engaged any contractors for project-related work in the reporting period?	Yes 🖬 No 🖬	If yes, please state for which types of work, and how the company h contractors with EBRD Performance Requirements and the Environments and the Envits and the Environments and t
Were there any violations stated above regarding the responsibility of contractors?	Yes 🖬 No 🖬	If yes, please provide details, including how the Company is ensurin implemented by the Contractor?

prevent reoccurrence:
re of any possible violations:
re of any violations found:
io of any violationo found.
re of any violations found:
ve actions to address any violations found:
ny has monitored the compliance of
ronmental and Social Action Plan:
uring those corrective actions

Have any operations been reduced, temporarily suspended or closed down due to environmental, health, safety or labor reasons?	Yes 🗖 No 🗖	If yes, please describe:

Please describe any environment or social programs, initiatives or sub-projects undertaking during the reporting period to improve the company's environmental or social performance and/or management systems:

Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Action Plan, or to any other initiative:

2. Status of the Environmental and Social Action Plan

Please provide information on the status of each item in the Environmental and Social Action Plan (ESAP). If the ESAP has been updated during the reporting period, please attach a copy of the new plan.

3. Environmental Monitoring Data 19								
Please provide the name and contact details for your environmental manager:								
Parameter ²⁰	Value ²¹	Unit	Compliance status ²²	Com				
Waste water								
Total waste water generated								
BOD								
COD								
Suspended Solids								
Phosphorus								
Nitrates								
Heavy metals								
[Other]								
Air Emissions								
SO ₂								
NO _X								
Particles								
CO ₂								

¹⁹ Please provide the results of monitoring environmental parameters carried out by the Company or its consultants. If you have already had all the necessary information available in another format, you can use that format instead of the one provided here ²⁰ Not all parameters will necessarily be applied. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.

nments ²³

²¹ Please ensure that the units of measurement are clearly stated.

 ²² Please state the standards applied in this project (typically local, EU and/or World Bank Group)
 ²³ In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

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3. Environmental Monitoring Data 19						
Please provide the name environmental manager:	e and contact	details for your				
Parameter ²⁰	Value ²¹	Unit	Compliance status ²²	Comments ²³		
CH ₄						
N ₂ O						
HFCs						
PFCs						
SF ₆						
[Other]						
Other Parameters						
Noise						
[Other]						
Solid Waste						
Please provide details of the ty method for each waste type.	ypes and amounts o	f solid wastes gener	ated by the project. Indicate places where waste is classified as hazardous	. Indicate the final re-use, recycle or disposal		

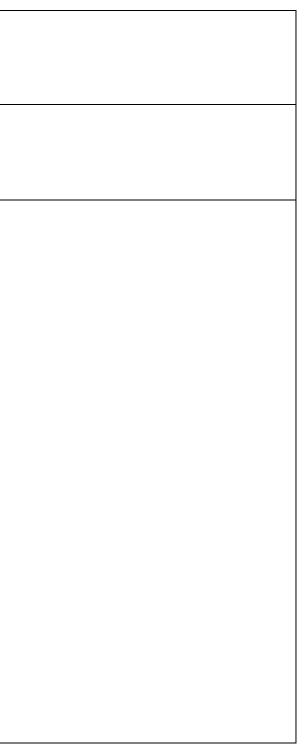
4. Resource Usage and Product Output						
Parameter	Value	Measurement Unit	Comments ²⁴			
Fuels used						
Oil						
Gas						
Coal						
Lignite						
Grid Electricity						
Heat Purchased						
Feedstocks and raw materials consumed						
Name 1						
Name 2						
Product output						
Product 1						
Product 2						

	-

²⁴ In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility Please include any fuel quality parameters (e.g. calorific value)

5. Human Resources Man	agement				
Please provide the name and contact details for your Human Resources manager:					
	Total		Recruited in this reporting period	Dismissed in this reporting period	
Number of direct employees:					
Number of contracted workers:					
Were there any collective redundancies during the repperiod?	porting			Indancy plan, including reasons for redundancies, number of workers involved, how they were selected, neasures to mitigate the effects of redundancy:	
Are there any planned redundancies to the workforce in the next year?		q	ves, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation ocess:		
Were there any changes in trade union Yes I If ye representation at Company facilities No I		es, please provide details, and summarize engagement with trade unions during reporting period:			
Are there any other worker representatives (e.g. in the absence of a trade union)?		es, please provide details and summarize engagement with them during reporting period:			
Were there any changes in of Collective Agreements?	the status	Yes 🖬 If No 🖬	es, please provide details:		
Have employees expressed grievance regarding the pro the reporting period?	-		es, please state how many, divide by gender, summarize the issues expressed by male and female staff and explain how the Company has Iressed them:		
Have employees expressed complaint about harassmer bullying during the reporting	nt or		es, please state how many, divide by gender, summarize the issues expressed in grievances by male and female staff and explain how the mpany has addressed them		

Were there any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?	Yes 🗆 No 🗅	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved
Were there any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?	Yes 🗆 No 🗅	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:
 Were there any changes to the following policies or terms and conditions during the reporting period in any of the following areas: Union recognition Collective Agreement Non-discrimination and equal opportunity Equal pay for equal work Gender Equality Bullying and harassment, including sexual harassment Employment of young persons under age 18 Wages (wage level, normal and overtime) Overtime Working hours Flexible working / work-life balance Grievance mechanism for workers Health & safety 	Yes	If yes, please give details, including some new initiatives::



6. Occupational Health and Safety Data						
Please provide the name and contact de Safety manager	tails for your Health and					
	Direct employees	Contracted workers		Direct		
Number of hours during the reporting period when people worked:			Number of fatalities ²⁵ :			
Budget spent on OHS in this period (total amount and currency):			Number of injuries:			
OHS training provided in this period among employees-days:			Number of Lost Time Incidents (including vehicles) ²⁶ :			
Number of lost workdays ²⁷ resulting from incidents			Number of cases of occupational disease:			
Number of days when people are on sick leave:						

Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):

Please provide details of any fatalities or major accidents that have not previously been reported to EBRD, including total compensation paid due to oc currency):

Please summarize any emergency prevention and response training that has been provided for company personnel during the report period:

Please summarize any emergency response exercises or drills that have been carried out during the report period:

Environmental Management Plan

employees	Contracted workers
ccupational injury	or illness (amount and

If you have not done it yet, please provide a separate report on the circumstances of each fatality in a great detail.
 Incapacity to work for at least one full workday on the day when the accident or illness occurred.
 The number of workdays is related to lost workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

7. Stakeholder Engagement

Please provide the name and contact details for your external relations or community engagement manager:

Please provide information on the implementation of the stakeholder engagement plan agreed with EBRD and summarize interaction with stakeholders during the reporting period, including:

- Meeting or other initiatives to engage with the members of public or public organizations during the report period,
- information provided for the members of public and other stakeholders during the report period concerning environmental, social or safety issues
- coverage in media,
- and interaction with any environmental or other community groups.

Please describe any changes to the Stakeholder Engagement Plan:

How many complaints or grievances did the project receive from the members of public or civil society organizations during the reporting period? Please indicate separately according to the stakeholders. Summarize any issues raised in the complaints or grievances and explain how they were resolved:

ng the reporting period, including:

8. Status and Reporting on Resettlement Action Plan/Livelihood Restoration Framework

Existing Land Acquisitions

Please report any further progress made during this reporting period in the implementation of the Resettlement Action Plan (RAP) or Livelihood Restoration Framework (LRF), using the monitoring indicators as detailed in the RAP or LRF, and complete the table below. Please provide the results of any other related monitoring carried out by the Company or its consultants and attach any additional information you think would be useful.

Have all the affected persons been fully compensated for their physical displacement and, if applicable are there any economic losses resulting from the project?			No	If no, specify how many compensation payments are still percentage of recipients and payment amounts) and state who
Has the land acquisition had any additional, unforeseen impacts on affected persons' standard of living or access to livelihoods that were not previously covered in the RAP?			No	If yes, quantify these impacts and specify what measures h mitigate these impacts. If no, specify how potential impacts or
Have any vulnerable groups been identified?	Yes		No	If yes, list the groups that were identified and describe any a to mitigate impacts specific to these groups.
If applicable, have all transit allowances been paid?	Yes		No	If no, specify how many payments are still outstanding (in recipients and payment amounts) and state when these payment
Has legal support been provided to all affected persons?	Yes		No	If yes, specify how many persons effectively made use of the
Have all outstanding land and/or resource claims been settled?		D applicab	No le 🗆	If no, specify how many claims are still outstanding and settling them.
Are there any new land acquisition-related complaints or grievances?	Yes		No	If yes, please state how many and summarize their content.
				1

till outstanding (in terms of number and when these payments will be made:

have been undertaken to minimize and on livelihoods have been monitored.

additional measures undertaken in order

(in terms of number and percentage of ments will be made.

e legal support.

d state what the expected timing is for

Has the company regularly reported the affected communities on the progress made in implementing the RAP?	Yes	Noロ	If yes, please state how many meetings were held and how many participants attended those meetings
New Land Acquisitions			
			e documents to show closure of land acquisition transactions. Please attach new/revised RAP covering ed, etc. and provide in tabular form a list of affected people and status of compensation.
Are there any persons that have been physically displaced?	Yes□	Noロ	If yes, how many?
Are there any persons that have been economically displaced?	Yes	Noロ	If yes, how many?
Will the government assist that resettlement?	Yes	Noロ	
	1		1

9. Community Interaction and Development

Please summarize any social or community development initiatives undertaken by the company during the reporting period, and any associated expenditure:

APPENDIX 3

LEGISLATION

REGULATIONS AND REQUIREMENTS

This section deals with the regulatory context in terms of consultation and publicity in the Republic of Serbia, and it relates to the Design. Particular emphasis is placed on the importance of the relevant Serbian legislation, regional regulatory instruments, as well as the relevant requirements of the EBRD, the World Bank's World Bank Access Policy and Operational Policies OP 4.01 Environmental Impact Assessment.

BASIC NATIONAL LEGISLATION:

The main laws and regulations currently in force in Republic of Serbia which are relevant to the environmental protection during the design and execution of works are listed below:

- Law on planning and construction ("Off. Gazette RS", no. 72/2009, 81/2009 - correction, 64/2010 - CC decision, 24/2011, 121/2012, 42/2013 -CC decision, 50/2013 - CC decision, 98/2013 - CC decision, 132/2014 and 145/2014);
- 2. Law on nature protection ("Off. Gazette RS", no. 36/2009, 88/2010, 91/2010 correction and 14/2016);
- 3. Law on environmental protection ("Off. Gazette RS", no. 135/2004, 36/2009, 36/2009 state law, 72/2009 state law, 43/2011 CC decision and 14/2016)
- 4. Law on EIA ("Official Gazette RS" no. 135/2004, 36/2009);
- 5. Law on Strategic EIA ("Official Gazette RS" no.. 135/2004 and 88/2010);
- 6. Law on waste management ("Off. Gazette RS", no. 36/2009, 88/2010 and 14/2016);
- 7. Law on noise protection ("Off. Gazette RS", no. 36/2009 and 88/2010);
- 8. Law on water ("Off. Gazette RS", no. 30/2010, 93/2012 and 101/2016)
- 9. Law on forests ("Off. Gazette RS", no. 30/2010, 93/2012 and 89/2015)
- 10. Law on air protection ("Official Gazette RS", 36/2009 and 10/2013);
- 11. Law on safety and health at work ("Off. Gazette RS", no. 101/2005, 91/2015 and 113/2017 state law)

Regulations established on the basis of the Law on EIA include the following:

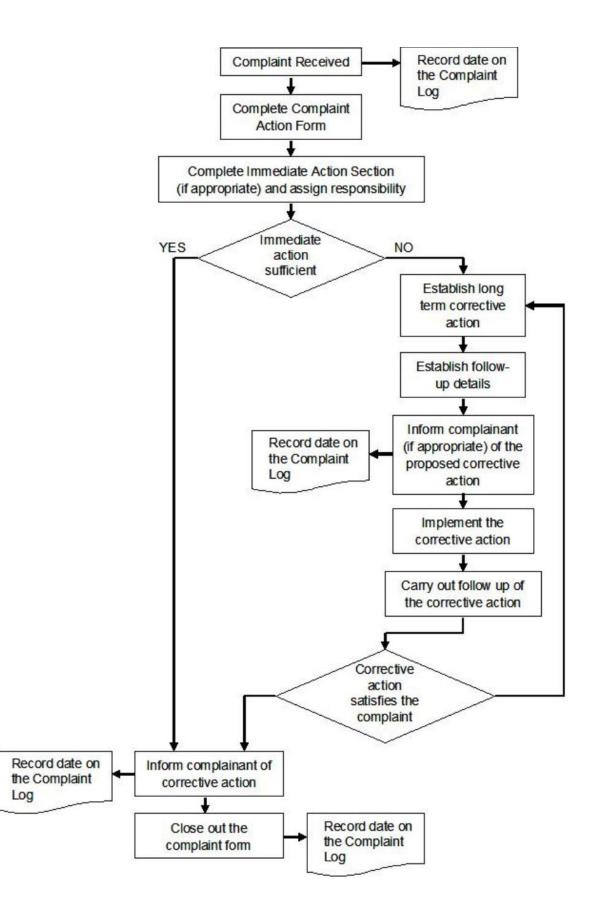
- 1. Regulation of establishing the List of Projects for which the Impact Assessment is mandatory and the List of projects for which the EIA can be requested (RS Official Gazette No 114/08);
- 2. Manual of the contents of requests for the necessity of Impact Assessment and on the contents of requests for specification of scope and contents of the EIA Study ("Official Gazette RS" no. 69/05);
- 3. Manual of the contents of the EIA Study ("Official Gazette RS" no. 69/05);
- 4. Manualof the procedure of public inspection, presentation and public consultation about the EIA Study ("Official Gazette RS" no. 69/05);
- Manual of the work of the Technical Committee for the EIA Study ("Official Gazette RS" No. 69/05);
- 6. Regulations on permitted noise level in the environment ("Official Gazette RS" No. 54/92);
- Regulation of establishing class of water bodies ("Official Gazette FRS" No. 5/68);
- 8. Regulations of dangers pollutants in waters ("Official Gazette FRS" No. 31/82).

Other relevant Serbian legislation

- 1. Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area ("Official Gazette RS", 38/09);
- 2. Law on public roads ("Official Gazette RS" No. 101/2005, 123/07)

APPENDIX 4

THE GRIEVANCE MECHANISM AND FORM



The algorithm of the grievance flow / Complaint procedure

Reference number of a grievance:						
Contact details	Name:					
	Address:					
	— 1					
	Tel:					
	e-mail:					
How would you prefer to be contacted? Please tick a box	by post	by phone	by	/ e-mail		
Name and personal information (a ur card)	nique master citiz	zen number	from	identity		
Details of your grievance. Please describe the problems, whom they occurred to, when, where and how many times, as relevant						
What is your proposal for resolving the grievance?						
How to submit this form to the	By post:					
authorized persons	by hand:					
	please drop this form at: by e - mail: Please e-mail your grievance,					
	proposed resolution and contact details to					
	the following e -	- mail addre:	SS:			
Signature			Date			

APPENDIX 5

PUBLIC CONSULTATIONS

1. INTRODUCTION

Road Rehabilitation and Safety Project – RRSP is a project of support of the international financial institutions (World Bank, European Investment Bank and European Bank for Reconstruction and Development) to the Government of the Republic of Serbia in implementing the National program for rehabilitation of the state road network. This project represents the realization of the first phase of the Government's program for the period from 2014 to 2019 and includes the following:

• improving the conditions of the state road network by rehabilitating around 1,100 km of the existing roads,

• raising the safety level on the roads by applying measures for enhancing the traffic safety in all phases of Project implementation, and

• strengthening capacities and improving institutional coordination in the area of traffic safety by implementing greater number of different services

Environmental Management Plan was prepared within Road Rehabilitation and Safety Project, for suggested heavy maintenance of State Road IA class, No. 3 section: Sremska Mitrovica interchange - Ruma interchange in order to ensure using good practice of environmental protection and prepare the documentation in accordance with the requirements of IFI's that invest in this project.

The length of the section planned for rehabilitation is 13.750 km. The beginning of the section intended for rehabilitation is defined at 531 m after the node 0305 Ruma interchange, regarding the direction towards Sremska Mitrovica. The end of the section is defined at 656 m after the node 0304, Sremska Mitrovica interchange, observed in the same direction.

Main Design Designer prepared a draft document of the Environmental Management Plan for the rehabilitation of the State Road IA No.3, Section: Interchange Sremska Mitrovica - Ruma interchange. The Environmental Management Plan has been created with the aim to ensure the implementation of best practices and projects in accordance with the requirements of International Financial Institutions which will fund the Road Rehabilitation and Safety Project. Creating the Environmental Management Plan was carried out through study and research in the field, including consultations with representatives at regional and local level.

PE "Roads of Serbia" issued a call for a public discussion to the authorities, organizations and the public concerned for the Environmental Management Plan for the Road Rehabilitation and Safety Project regarding the section: Interchange Sremska Mitrovica - Ruma interchange on November 02nd, 2018. The call was published on the PE Roads of Serbia's website (November 02nd, 2018), as well as in "Politika" newspapers (November 06th, 2018)

Public auditorium, organizations and other interested parties are invited to participate in the public debate on the pre-final document of Environmental Management Plan. This plan was sent to the Municipalities of Ruma and Sremska Mitrovica. Municipal representatives informed the public through local media and municipality's website about the time and place of the public discussion.

Access to the Environmental Management Plan is provided at the following addresses:

- The headquarters of PE "Roads of Serbia", Sector for Investments, Vlajkoviceva 19a Street, Belgrade, on the first floor, every working day from 11:00 AM to 01:00 PM, within 14 days from the date of publication of this notice;
- within the premises of PUC "Plan", 27th October 7a Street, 22400 Ruma, every working day from 8:00 AM to 3:00 PM, within 14 days from the date of publication of this notice;
- City Hall, Svetog Dimitrija 13 Street, 22000 Sremska Mitrovica, every working day from 08:00 AM to 03:00 PM, within 14 days from the date of publication of this notice;
- On the PE "Roads of Serbia" website: <u>www.putevi-srbije.rs</u>

Public consultation and presentation of the Environmental Management Plan was held in City Hall, conference room No. 4, City Administration of Sremska Mitrovica, on November 23rd, 2018, from 11:00 AM to 12:00 PM. There were no remarks referring to the presented Environmental Management Plan. There were no questions or concerns about the presented Plan.

2. REPORT ON PUBLIC CONSULTATION, SREMSKA MITROVICA NOVEMBER 23rd, 2018

According to the operative politics of the World Bank OP 4.01, the Environmental Management Plan of Road Rehabilitation and Safety Project for the State Road IA No.3, road section: Sremska Mitrovica interchange - Ruma interchange, in length of 13.750 km, has been prepared.

Environmental Management Plan was made publicly available on November 06th, 2018, when PE "Roads of Serbia" invited all shareholders, public and relevant institutions to inspect all works which were proposed during the road rehabilitation and environmental impacts with review of measures for reduction and monitoring. Prior to announcement in the newspapers, the document was delivered to the municipalities of Ruma and Pecinci. Document was posted on the website of PE Roads of Serbia.

Representatives of local self-government informed the public through local media about the time and place of the public consultation. The insight into the draft of the Environmental Management Plan was completed on November 23rd, 2018, when public consultations were held in Sremska Mitrovica.

Public consultations, held in Sremska Mitrovica on November 23rd, 2018, were attended by 9 people²⁸. Among the participants were the representatives of the City Administration of Sremska Mitrovica.

People who participated on public consultations were:

No.	Name and Surname	Working organization-institution			
1.	Miroslav Stojanovic	"MHM" Projekt			
2.	Jovana Marinkovic	"MHM" Projekt			
3.	Jelena Đonlić	City Administration of Sremska Mitrovica			
4.	Slađana Mirčeta	City Administration of Sremska Mitrovica			
5.	Biljana Šimić Vladimirović	City Administration of Sremska Mitrovica			
6.	Nataša Lebaš	City Administration of Sremska Mitrovica			
7.	Gordana Rađević	City Administration of Sremska Mitrovica			
8.	Emilija Trebovac	City Administration of Sremska Mitrovica			
9.	Dijana Đurić	City Administration of Sremska Mitrovica			

²⁸ The list of participants is in Chapter 4.

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Figure 1. Public consultations held in the conference room of City Administration of Sremska Mitrovica on November 23rd, 2018



Figure 2. Public consultations held in the conference room of City Administration of Sremska Mitrovica on November 23rd, 2018



Figure 3. Public consultations held in the conference room of City Administration of Sremska Mitrovica on November 23rd, 2018

Public consultations of the Environmental Management Plan for the project of Road Rehabilitation and Safety Project for the State Road IA No. 3, road section: Sremska Mitrovica interchange - Ruma interchange started at 11:00 AM. The main Plan was presented by the Designer. During the public consultations, there were no remarks or questions regarding the presented plan.

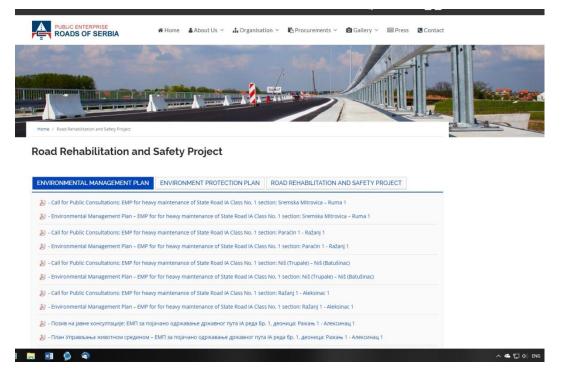
3. COMPLAINTS, QUESTIONS AND ANSWERS

After the presentation of the Plan, there were no questions or doubts about the works on the observed road section, since it is a rehabilitation of a half-section of the highway, without widening and construction of new traffic surfaces.

4. LIST OF PARTICIPANTS

Редни број	Име и презиме	Радна организација - установа	Потпис
1.	Journa Marinković	MATA- project	fllspickavig'
2.	Jovana Marinković Hirosav Storanović	NHIN - PROJEKT	All going
3.	Jereya Zarnut	Epge . Vipige Page	Topuret
4.	Cratity Hupreta	SPAA JAPPED at Jup 4 row showing	Legan C.
5.	Bolyava Jimić WadiwaRović	Gaudeka upikawa Gilada Amerika Uhikawa	Intawa Grave Mashaurović
6.	HATTAWA VLASAW	CERCELLE MATAGE SA DELUTE LI LA SETEMBER	Howana Mutra
7.	ROCAATTR PAJETTEK	POCODE & UNCOUNT FRAM CARP HUMBERGE FORCENT STOPPET OF COUT UST NOOSE V UN OPAUS PORT EPON ALLING	Topantos
8.	TREBOBACH EALUMINO	TRAACEA INPABA 3A CIUNE H SAJE NOCLOBE & UNOBULHY	HEMINIA
9.	Dijan Durid	Gradie your on drivering entries	Sur. The
10.		a aprove	- 0
11.			
12.			
			Место: Градска управа Сремске Митровиц
			место. градска управа сремске митровиц

Figure 4. A List of People Present at Public Consultations Held in the Conference Room of City Administration of Sremska Mitrovica



5. DOCUMENTATION

Figure 5. Call for Public Consultations Posted on the website of PE "Roads of Serbia"

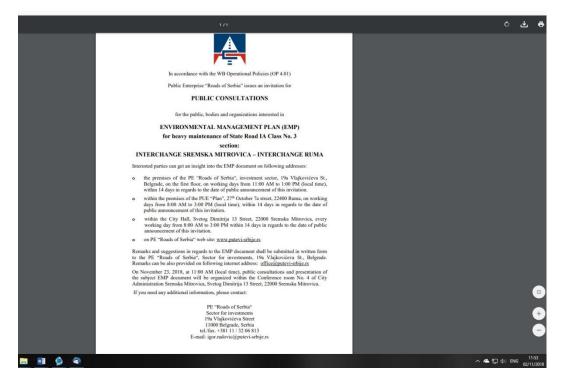
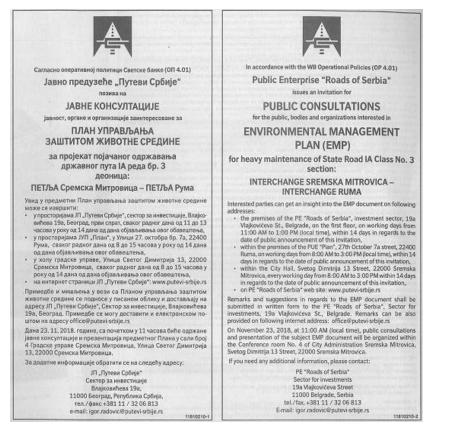
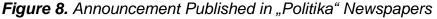


Figure 6. Announcement of Public Consultation Posted on the Website of PE "Roads of Serbia"

	we	ORLD BANK - EIB	
	ROAD REHABILITATION AND MAIN DESIGN FOR HEAVY MAIN	D BUILD WITHOUT CONCINENCE BUIL	
	LOT 3: IA3, section: Sremska Mitro km 43+563 to km Contract ID: RRSP/CS3-	57+313, L=13.750km	
	ENVIRONMENTAL MA	ANAGEMENT PLAN Draft	
	Author: Miroslav Stojanovic Bsc. civ. Eng. July 2018	PREPARED BY:	
i 🖿 🖬 🤌 🔍			∧ ▲ 11:54 ENG 02/11/2018

Figure 7. Environmental Management Plan Posted on the website of PE "Roads of Serbia"





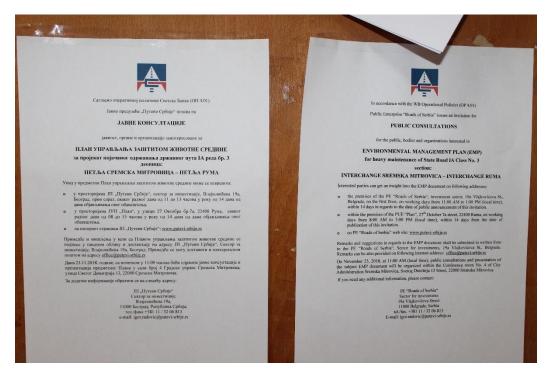


Figure 9. Notice of a Public Consultation Meeting Hung on the Bulletin Board in the Municipality of Ruma

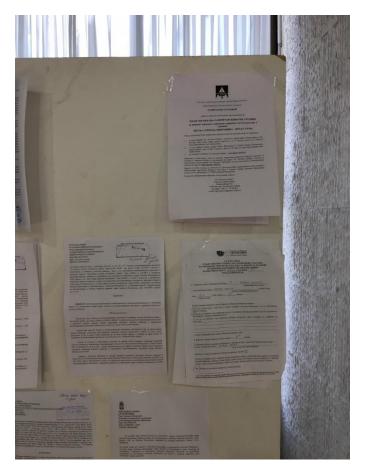


Figure 10. Notice of a Public Consultation Meeting Hung on the Bulletin Board in the Municipality of Sremska Mitrovica

APPENDIX 6

CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS

ПОКРАЈИНСКИ ЗАВОА ЗА ЗАШТИТУ ПРИРОДЕ Собија = 21000 Ноже Соа = Рамичка 20А Тел: 021/4896-301 = факе; 021/65-16-252 е maik novi.sad@pzpls = www.pzpls



INSTITUTE FOR NATURE CONSERVATION OF VOJVODINA PROVINCE Serbía = 21000 Novi Sad = Radnicka 20A Pixone: 4381214896301 = Fax: +381216616252 e-mail: novi.sad@pzzp.rs = www.pzzp.rs

Број: 03–2046/2 Датум:17.08.2017.

ЈП ПУТЕВИ СРБИЈЕ Булевар краља Александра 282

Поштански фах 17 11059 БЕОГРАД

На основу чл. 9. и 102. став 1. тачка 10. Закона о заштити природе ("Службени гласник РС", бр. 36/2009, 88/2010 и 91/2010– исправка и 14/2016), члана141. Закона о општем управном поступку ("Службени гласник РС ",бр.18/2016) и на основу члана 2. Правилника о висини и начину обрачуна и наплате накнаде за издавање акта о условима заштите природе ("Службени гласник РС", број 110/2013); Покрајински завод за заштиту природе доноси

РЕШЕЊЕ

I) Поступајући по захтеву ЈП "Путеви Србије" за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр.3 (аутопут Е-70), деоница петља Сремска Митровица- петља Рума радове изводити под следећим условима;

- За обнављање коловозног застора, користити материјал који са аспекта заштите треба да обезбеди следеће захтеве: смањење нивоа буке и вибрација, омогућавање ефикасног дренирања воде са површине коловоза, и сл.;
- Обавити равнање терена после завршетка радова ради смањења могућности ширења корова;
- За одлагање чврстог отпада користити контејнере који обезбеђују изолацију отпадних материја од околног простора. Контејнери се морају редовно празнити од стране одговарајуће комуналне службе;
- Мазиво и гориво потребно за снабдевање механизације неопходно је транспортовати, депоновати (чувати) и њима руковати поштујући при том мере заштите прописане законском регулативом која се односи на опасне материје;
- 5. У случају акцидентног изливања загађујућих материја на простору станишта заштићених и строго заштићених дивљих врста биљака, животиња и гљива или у зони утицаја, загађени слој земљишта мора се хитно отклонити и исти ставити у амбалажу која се може празнити само на, за ту сврху, предвиђеној депонији, изван природних станишта. На место акцидента нанети нови, незагађени слој земљишта. Услове за ревитализацију терестичних и акватичних станишта тражити од овог Завода.
- Подносилац захтева је дужан да радове и активности изведе у свему у складу са условима из тачке I овог решења.
- III) Уколико подносилац захтева у року од две године од дана достављања акта не отпочне радове и активности за које је акт о условима заштите природе издат, дужан је да прибави нови акт. Такође, уколико дође до измена захтевом наведених активности,

- или промене локације/подручја, носилац активности дужан је да поднесе Покрајинском заводу за заштиту природе нов захтев за издавање акта о условима заштите природе;
- IV) Ово решење не ослобађа обавезе подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима;
- V) Обрађивач је обавезан да поштује и све друге одредбе заштите животне средине утврђене Законом о заштити природе, другим прописима као и важећим плановима вишег реда.

VI) Накнада за издавање овог Решења у износу од 30.000,00 динара, је одређена у складу са чланом 2. Правилника о висини и начину обрачуна и наплате накнаде за издавање акта о условима заштите природе.

ОБРАЗЛОЖЕЊЕ

ЈП "Путеви Србије" из Београда, Булевар краља Александра 282 обратило се Покрајинском заводу за заштиту природе са захтевом бр. 953-16192 од 04.08. 2017. за за израду техничке документације пројекта Појачаног одржавања пута IA реда бр.3 (аутопут Е-70), деоница петља Сремска Митровица- петља Рума. Према Информационој бази Покрајинског завода за заштиту природе, предметна траса пута не прелази преко заштићених природних добара ни преко станишта строго заштићених и заштићених врста

Услови прописани тачкама 1.- 5. израђени су у складу са Чланом 21. Закона о заштити животне средине ("Службени гласник РС", бр. 135/2004,36/2009,72/2009,43/2011 и 14/2016) којим је дефинисан принцип интегрисане заштите природе и животне средине: "Заштита природних вредности остварује се спровђењем мера за очување њиховог квалитета, количина и резерви, као и природних процеса, односно њихове међузависности и природне равнотеже у целини". Очување природних процеса и заштита природних вредности у антропогеном пределу захтева исте мере које су предуслов стварања здраве животне средине, а право на здраву средину обезбеђено је Уставом наше државе. Услови су дефинисани у складу са Чланом 7. Закона о заштити природе, по коме се заштита природе реализује "... спровођењем мера заштите природе и предела; утврђивањем услова и мера заштите природе и заштићених природених добара и предела; утврђивањем и урбанистичким плановима, пројектној документацији, основама и програмима...од утицаја на природу...као и ублажавањем штетних последица које су настале активностима у природи".

Чланом 8. Закона о заштити природе ("Службени гласник РС", бр. 36/2009, 88/2010 и 91/2010) дефинисано је планирање, уређење и коришћење простора. Планирање и уређење простора спроводи се на основу просторних и урбанистичких планова, планске и пројектне документације, у складу са мерама и условима заштите природе. Носилац пројекта дужан је да поступа у складу са мерама заштите природе, на начин да се избегну, или сведу на најмању меру угрожавања или оштећења природе. Према члану 9. у поступку израде планова, пројеката и активности из члана 8. Закона о заштити природе прибављају се услови заштите природе. Акт о условима заштите природе, између осталог, садржи процену да ли се планирани радови и активности могу реализовати са становишта циљева заштите природе. Поука о правном леку:

Против овог Решења може се поднети жалба Покрајинском секретаријату за урбанизам, градитељство и заштиту животне средине, а преко Покрајинског завода за заштиту природе, у року од 15 дана од дана достављања овог Решења уз доказ о уплати Републичке административне таксе у износу од 440,00 динара на текући рачун бр. 840-742221843-57, позив на број 59013 по моделу 97.

Решено у Покрајинском заводу за заштиту природе, под бројем 03–2046/2, дана 17.08.2017. године.

Директор: Taue Pay др/Биљана Пањковић

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Доставити:

- 1. Наслову
- 2. Архиви
- 3. Дскументацији

253-161 S1/17 08-09-2017 BTVM OPAL Series

ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ Број: 413-07/17-3 Датум: 07.09.2017. године СРЕМСКА МИТРОВИЦА

445 **62, 282**

Завод за заштиту споменика културе Сремска Митровица, на основу чл. 99. став 2. тачка 1., 100. став 1. и 104. Закона о културним добрима ("Сл. Гласник РС" бр. 71/94) и члана 104 став 1. тачка 1. Закона о општем управном поступку ("Службени гласник РС" број 18/2016), а на захтев ЛП "ПУТЕВИ СРБИЈЕ", Булевар Краља Александра број 282, за Сектор за инвестиције, доноси

РЕШЕЊЕ

I Услови и мере техничке заштите-за израду техничке документације пројекта појачаног одржавања деонице државног IA реда бр. 3 (аутопут Е-70), деоница петља Сремска Митровица – петља Рума, могу се предузети на основу следећих услова:

-у зони презентованог археолошког налазишта Маузолеј забрањује се складиштење материјала и стварање депонија, као и просипање и одлагање отпадних и штетних материја, привремено или трајно;

-обавезан је константан археолошки надзор од стране стручне службе овог Завода приликом извођења земљаних радова на иградњи;

-ако се у току извођења радова наиђе на археолошка налазишта или археолошке предмете извођач радова је дужан да одмах, без одлагања прекине радовеи о томе обавести Завод за заштиту споменика културе у Сремској Митровици, као и да предузме мере да се налаз не уништи и не оштети и да се сачува на месту и у положају у коме је откривен, а све у складу са чланом 109. став 1. Закона о културним добрима;

-Инвеститор је у обавези да обустави радове уколико наиђе на археолошка налазишта или археолошке предмете од изузетног значаја, ради истраживања локације;

-Инвеститор је дужан да обезбеди средства за праћење, истраживање, заштиту и чување пронађених остатака који уживају претходну заштиту;

-обавезна пријава почетка земљаних радова Заводу за заштиту споменика културе у Сремској Митровици.

II Радови морају бити изведени у свему у складу са издатим условима из тачке I овог решења.

Ш Ово решење не ослобађа подносиоца захтева обавезе прибављања и других услова, сагласности и дозвола предвиђених прописима о изградњи објеката и планирању и уређењу простора и насеља.

IV Ово решење важи две године од дана издавања.

V Жалба не одлаже извршење овог решења.



Република Србија Аутономна покрајина Војводина Покрајински секретаријат за урбанизам и заштиту животне средине

Булевар Михајла Пупина 16, 21000 Нови Сад T: +381 21 487 4719 Ф: +381 21 456 238 <u>ekourb@vojvodina.gov.rs</u> БРОJ:140-501-375/2018-05 ДАТУМ: 06. 03. 2018. година

МНМ -ПРОЈЕКТ д.о.о. Јована Поповића бр. 40 2100 Н О В И С А Д

Предмет: Захтев за давање мишљења у вези подношења захтева за одлучивање о потреби процене утицаја на животну средину

Покрајинском секретаријату за урбанизам и заштиту животне средине достављен је захтев за давање мишљења да ли је за пројекат појачаног одржавања државног пута IA реда бр. 3 деоница: Сремска Митровица – Рума 1, дужине 13,750 km и деоница: Рума 1 – Пећинци 1, дужине 12,990 km, неопходна процедура процене утицаја на животну средину, односно подношење захтева за одлучивање о потреби процене утицаја предметног пројекта на животну средину. На основу достављеног захтева може се закључити да предметни пројекат подразумева грађевинско – путарске радове у оквиру трасе постојећег пута.

У вези са достављеним захтевом обавештавамо вас да се процена утицаја врши, на основу члана 4. Закона о процени утицаја на животну средину ("Службени гласник РС", број 135/2004 и 36/2009), за пројекте који су наведени у Уредби о утврђивању Листе пројеката за које је обавезна процена утицаја и Листе пројеката за које се може захтевати процена утицаја на животну средину ("Службени гласник РС", број 114/2008). У Листи I, која садржи пројекте за које је обавезна студија о процени утицаја на животну средину, под тачком 7. подтачка 2) наводи се изградња магистралних аутопутева и путева са четири или више трака, или реконструкција и/или проширење постојећег пута са две траке или мање, са циљем добијања пута са четири или више трака, у случају да такав нови пут или реконструисана и/или проширена деоница имају непрекидну дужину од преко 10km или више, укључујући припадајуће објекте, осим пратећих садржаја магистралног пута, док се у Листи I, која садржи пројекте за које се може захтевати процена утицаја на животну средину, под тачком 12. Подтачка 5) наводе регионални путеви укључујући припадајуће објекте, осим пратећих садржаја пута – сви објекти.

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Како ЈП "Путеви Србије" планира извођење грађевинско – путарских радова у оквиру трасе постојећег пута, односно појачано одржавање државног пута IA реда бр. 3 деоница: Сремска Митровица – Рума 1, дужине 13,750 km и деоница: Рума 1 – Пећинци 1, дужине 12,990 km, према критеријумима наведеним у Уредби, не постоји обавеза вршења процене утицаја на животну средину.



Доставити: 1. Наслову 2. Архиви