#### ROAD REHABILITATION AND SAFETY PROJECT

MAIN DESIGN FOR HEAVY MAINTENACE OF THE STATE ROAD IA 3

LOT 4: Section: Interchange Ruma – Interchange Pecinci,

from km 57+313 to km 70+303, L= 12.990 km

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

## ENVIRONMENTAL MANAGEMENT PLAN

Final



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## ABBREVIATIONS

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		
INP	Institute for Nature Protection 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/CБ	The World Bank Group		
WMP	Waste Management Plan		
OP	Operational policy		
PIT	Project Implementation Team		

### INTRODUCTION

Environmental Management Plan was prepared within Road rehabilitation and safety project, for the suggested heavy maintenance of the state road IA class no. 3 section: Interchange Ruma – Interchange Pecinci in order to ensure using good practice of environmental protection and prepare the documentation in accordance with the requirements of IFI's for this project

In accordance with the guidelines issued by IFIs, the project was classified as B environmental, 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

EMP analyses the rehabilitation phase and operational phase of the relevant section then defines measures which are the obligation of the Contractor during the execution of rehabilitation works. Design elaboration will be compliant to Serbian legislation, rule books and provisions, as well as to 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 the local community (social aspect) and complying with the environmental requirements to the maximum possible extent given the circumstances of spatial limitations and the constraints arising from the types of allowed constructive and traffic measures.

For the suggested section, the Environmental Management Plan is focused on urgent maintenance and eliminating damages and it is a part of a corresponding construction works contract. The activities connected to the regular section maintenance, even though not the focus of this plan, will have their main points included in order to make the plan complete. Preparation for the development of EMP was performed through theoretical studies and site research, including the consultations with the representatives at the regional level and local authorities. EMP was mainly based on the site research conducted 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 first phase of the Government program for the period 2014-2019.

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

#### Location description

The subject road section belongs to the Srem administrative district located in the AP Vojvodina. The section Ruma - Pecinci in the length of 11.751 km (right carriageway lane) belongs to the state road A3 class no.1 (old road numeration M-1) ("Official Gazette RS", no. 93/2015), and it represents a part of the transversal traffic connection through Srem, in other words, the direction of Corridor 10 which connects the southern part of Serbia with the border crossing with Croatia (Batrovci). Moreover, the subject section is a part of the Project which is planned for heavy maintenance during the third year of its implementation. All the chainages in this Report are given in accordance with the new Reference system from December 2015.



Figure 1. Location of the section Ruma 1 - Pecinci 1

The works foreseen by this project will be completed within the existing roadside area to the extent that the existing roadside area allows. The Project <u>does not</u> <u>foresee resettlement, which is defined by OP 4.12</u>, nor the long-term disturbance of natural surrounding or damages to the environment, 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 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 provisions (Article 69) of the Law on roads ("Official Gazette RS", no. 41/2018).

In accordance with the ToR 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 the carriageway and the bridge paths (traffic profile) 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. At no point will the flow profile of the watercourse be reduced.

#### Policy, legal and administrative framework

The Ministry of Environmental Protection (MoEP) is the key institution in the Republic of Serbia responsible for formulating and implementing the strategy regarding environmental protection. The other aspects of environmental protection connected to road rehabilitation projects, were solved, among others, with the Provincial Institute for Nature Protection, Institute for Protection of Natural Monuments 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 (number 140-501-375/2018-05 from 06.03.2018.), the subject section is not located within the protected area for which the environmental

protection procedure was conducted or initiated and therefore <u>does not require</u> <u>making the Environmental Impact Assessment</u> (Appendix 6).

The creditor's requirements will be applied on this project and they include the following:

- Operational policy (4.01) of environmental impact assessment,
- Environmental and social guidelines (2008), EBRD,
- Statement on Ecological and Social Principles and Standards (2008), EIB,

The World Bank, EBRD and EIB require the design be made in line with the Laws of the Republic of Serbia and European Union standards.

Environmental protection in the Republic of Serbia is regulated by various laws as well as bylaws at the national and municipal level.

#### Baseline conditions assessed during route survey

The complete route is treated as a road outside the settlement with all the relevant characteristics. There are 20 culverts (3 pipe, 13 arched, 4 box culverts), as well as 2 bridges on this section.

The route has a grade separated intersection with the canal Jarcina and railroad Ruma – Sabac on the following locations:

- The bridge across the railroad and the local road at km 60+752
- The bridge across the Jarcina canal at km 65+040.00,

A dispersive system of drainage was applied on the subject section, i.e. all the water from the carriageway flows down the road shoulders and embankment slopes to the surface of the terrain or the perimeter canals.

As far as the historic monuments and protected resources are concerned, on the subject section, according to the data from the requirements of the Institute for Protection of Natural Monuments Sremska Mitrovica (number 412-07/17-3 from 07.09.2017.), no archaeological resources were determined. The rehabilitation works are allowed to be done, however, the presence of an expert archaeological supervision is requires, as well as compliance with the requirements stated in the Decision. It is necessary that the Contractor informs the competent institution about the date for the beginning of works.

When it comes to pollution and the noise source on the subject section, there is only the existing road as a linear source of noise and pollution. Current traffic load (AADT) for this road section is 16689 vehicles per day. The data were obtained from the website PERS (automatic traffic counter marked "NP" for year 2017)<sup>1</sup>.

#### Summary of environmental impacts

The works on road rehabilitation on the road section Interchange Ruma – Interchange Pecinci 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., road rehabilitation have been completed.

Road maintenance 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.

EMP refers to the phase of the execution of works, the implementation of which is a future obligation of the Contractor. During the execution of construction activities, there may be disturbances in the traffic flow, movement of the inhabitants of the surrounding settlements, reduced traffic safety, damages on the access roads, noise production, dust, waste and air pollution, impact on soil, water, plant and animal life. The works which are performed outside the location of the building site, such as quarries, asphalt bases and borrow pits can cause local negative 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 Ruma – Interchange Pecinci 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. EMP consists of the Mitigation Plan and Monitoring Plan and is based on the types of environmental impact, their scope and duration.

During the rehabilitation, the Contractor will perform works according to the EMPbased Contractor's Environmental Plan (CEP).

PE "Roads of Serbia" is in charge of designing, supervision and the execution of works on the application of EMP.

#### **Mitigation Plan**

The Environmental Mitigation Plan defines the environmental impacts and measures to be implemented during the design, construction and operational phase.

<sup>&</sup>lt;sup>1</sup>http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobracajnog-opterecenja-na-drzavnim-putevima-IA-reda.pdf

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Impacts and proposed mitigation measures are included in the EMP (Appendix 1). This plan sums up all the expected environmental impacts and connects them to the mitigation measures during design, rehabilitation and operation. The plan makes a reference to the preliminary conditions issued by the authorized institutions (Provincial Institute for Nature Conservation no. 03-2047/2 dated 17.08.2017., Institute for Protection of Cultural Monuments Sremska Mitrovica no. 412-07/17-3 dated 07.09.2017., PWMC Vode Vojvodine no. I-323/8-18 dated 25.06.2018.), laws and contract documentation, approximate location, time scope and responsibilities for its implementation and supervision.

#### Monitoring plan (observing the impacts)

The Monitoring Plan is prepared in relation to the proposed Project (Appendix 2). The basic components of the plan include the following:

Defining the environmental elements that need to be followed and the manner in which they are to be followed:

- Special areas, locations and parameters that need to be monitored;
- Application of 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 site. Signed control lists are submitted to PERS, which is responsible for compliance monitoring and reporting.

## Stakeholder engagement – Information disclosure, consultation and participation of public

As requested by IFI safeguard policy, public consultations were held in 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 5 to this document and contains a list of participants identified. 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.

All the problems associated to 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, Designer received from the relevant institutions the following:

- Spatial plan of Ruma municipality (Off. Gazette of Srem municipality, no. 7/15);
- Detailed Urban Plan "Motel Ruma complex at the motorway E-70"(Off. Gazette of Srem municipality, no. 4/88);
- Detailed regulatory plan for the petrol station "OMV Jugoslavija" on the motorway E-70 at c.p. 2783 c.m. Dobrinci (Off. Gazette of Srem municipality, no. 21/06)
- Graphic Appendixes from the spatial plan of Pecinci municipality (reference map 2.b, network of settlements and the infrastructural systems)
- Graphic Appendixes from the Detailed regulatory plan of the work zones 1.6., 10.1. and 10.2. (planned water infrastructure and planned electricity and telecommunication network and structures.
- Spatial plan of Pecinci municipality can be found on the official website of Pecinci municipality,
   http://www.pecinci.org/lokalna\_samouprava/odelienie\_za\_urbanizam\_stam

http://www.pecinci.org/lokalna\_samouprava/odeljenje\_za\_urbanizam,\_stam beno\_komunalne\_poslove\_i\_zastitu\_zivotne\_sredine/prostorni\_plan\_opstin e\_pecinci.295.html

#### 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 the Security Council. The EMP and other information connected to the project were presented to public on October 11<sup>th</sup>, 2018. 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 of holding the public hearings.

The consultations with the users will be 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 grieving party about the results. This is to be applied to all types of grievances. 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 first phase of the Government program for the period 2014 - 2019. and it 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 IA class no. 3 section: Interchange Ruma – Interchange Pecinci which should be realized through:

- rehabilitation of the estimated number of kilometers of the existing roads,
- raising the level of road safety by applying various measures
- conducting various activities in all Project implementation phases, and strengthening the capacities and promoting institutional coordination in the sphere of traffic safety in Serbia, along with modernization of roads management and maintenance.

#### Section description

The subject section belongs to the Srem administrative district located in AP Vojvodina. The section Ruma - Pecinci in the length of 11.751 km (right carriageway lane) belongs to the state road A3 class no. 1 (old road marking M-1) ("Official Gazette RS", no. 93/2015), and it represents the part of a transversal traffic connection through Srem, in other words the direction of Corridor 10 which connects the southern part of Serbia with the border crossing with Croatia (Batrovci). Moreover, the subject section is a part of the Project intended for heavy maintenance within the third year of its implementation. All chainages in this report are given in

accordance to the new Reference system from December 2015. An excerpt from the Reference system is given in Table 1.

According to the categorization that came into force on November 13<sup>th</sup>, 2015 ("Official Gazette RS 93/2015), the subject section belongs to the state road IA class no. 3 (Belgrade - Ruma – Sremska Mitrovica – state border with Croatia (border crossing Batrovci)).

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)
1	0009	03011	0305	0306	Ruma interchange	Pecinci Interchange	11.751 (** 12.990)
						Total	11.751 <b>(**12.990)</b>

Table 1. Excerpt from the Reference system

\* label of the section according to the old reference system 2008/2009 (JV CPL- Nievelt) \*\* length of the section which is to be repaired

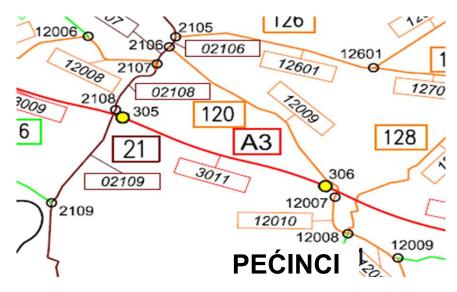


Figure 2. Excerpt from the Reference system map of the state roads, December 2015

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



#### Figure 3. A schematic view of the road section intended for rehabilitation (heavy maintenance)

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

The works foreseen by this project will be completed within the existing roadside area to the extent that the existing roadside area allows. The Project <u>does not</u> <u>foresee resettlement, which is defined by OP 4.12</u>, nor the long-term disturbance of natural surrounding or damages to the environment, human settlements and activities.

The length of the section intended for heavy maintenance (intervention) is 12.990 km. In this respect, the beginning of the section is defined at 531 m before the node 0305 Ruma interchange, observed in the direction of chainage increase (Figure 4.). The end of the section is defined at 708 m after the node 0306 Pecinci interchange, observed in the same direction (Figure 5.).



Figure 4. The beginning of the subject section



Figure 5. The end of the subject section

The subject of the Design is a right carriageway lane of the motorway, observed in the chainage increase direction, in the defined length.

There are no settlements on the subject section.

#### Description of rehabilitation

Within the scope of the technical documentation for heavy maintenance of the section Ruma-Pecinci, L=12.990 km, road extension is not foreseen, but the existing carriageway width is retained.

		Traffic lanes		Total		
Section	Overtaking lane (m)	Driving lane (m)	Emergency lane (m)	Marginal strip (m)	carriageway width (m)	
Ruma-Pecinci	3.75	3.75	2.5	0.5	11	

Table 2.	The existing	traffic sem	i-profile
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The type of planned works mostly include the strengthening of the existing pavement structure, within its current dimensions and the existing rehabilitated drainage system along with the design of all the elements that prolong durability of executed works and improve the traffic safety system and it is completely regulated by provisions (Article 69) of the Law on roads ("Official Gazette RS", no. 41/2018).

In accordance with the ToR and based on the site visits, it will be foreseen in the design to make the appropriate solutions for the repair and development of structures within the roadbase. The width of the carriageway and the paths on the bridges (traffic profile) keeps the same dimensions compared to the current state. The design will foresee controlled water drainage in front of and behind the bridge, as well as the solution for crossing from road shoulders to the bridge.

For the reconstruction of bridges no watercourse works are foreseen. The design does not anticipate river beds regulation, since these are heavy maintenance works. At no point will the flow profile of the watercourse be reduced.

The design will, if necessary, include the arrangement of rest areas or accesses to some commercial/tourist facilities. Moreover, the analysis will be performed about arrangement or discontinuation of uncontrolled access roads to the motorway. Certain existing culverts will be prolonged or the new ones shall be made if the existing ones are significantly damaged.

The subject section is located in the low embankment, therefore, the drainage of atmospheric waters is done over the road shoulders and down the embankment base, as well as by using a drain flume in the median strip. The drain flume in the median strip is made from precast concrete elements, and collected atmospheric water is discharged from the drain flume through the manholes from which it is finally discharged into the natural recipients or culverts.

Within the hydrotechnical works on the subject section, it is not foreseen to arrange the water courses nor to change the drainage system, only to improve the existing one, in the sense of returning it to the functional condition.

Traffic regulation in the zone of works will be performed:

- by using traffic signs;
- manually (rodmen alternately giving way);
- by using a traffic light.

Traffic signaling 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 signage in the works zone 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 signage is produced.

Traffic signage 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 danger warning zone.

It is essential to have a traffic engineer on call at every moment on the construction site who will take care about traffic signage 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 signage (ensure that the wind doesn't knock over the vertical signs, that the horizontal signage is visible at all times...) and who will react appropriately in case of any irregularities.

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

The complete route is treated as the out of settlement section with all the accompanying characteristics.



Figure 6. Typical parts of the subject section

Based on the geodetic survey, it is concluded that there are 20 culverts (3 pipe, 13 arched and 4 box culverts), as well as 2 bridges on the section.

The route has a grade separated intersection with the watercourse and the road of lower class and the railroad on the following locations:

- An overpass across the railroad Ruma Sabac at km 60+752 (Figure 7.)
- The bridge across the canal Jarcina at km 65+040.00 (Figure 8.)



Figure 7. An overpass over the railroad Ruma - Sabac at km 60+752



Figure 8. The bridge across the canal Jarcina at km 65+040.00

Overall the bridges are in a good condition. Drainage is based on water flowing along the curb and through the drain directly to the base of the bridges. The drains are generally in a good shape.

The design will foresee the introduction of a longitudinal pipeline along the bridges for collecting the discharge and channeling it to the recipient, in other words to the base of the bridge. It will be envisages to arrange the discharge into the recipient, in the form of coating the slopes of the recipient on the places of discharge.

The roads of lower rank cross the subject section on the following locations:

- Overpass at km 57+850 ()
- Overpass at km 65+320 ()
- Overpass at km 68+200 ()



Figure 9. Overpass at km 57+850



Figure 10. Overpass at km 65+320



Figure 11. Overpass at km 68+200

A dispersive drainage system is applied on the subject section i.e. all the water from the carriageway flows down the road shoulders and embankment slopes to the surface of the terrain or to perimeter canals. The main drainage element in the median strip are concrete drain flumes made from precast concrete elements, which take the collected runoff to the manholes with drainage truss.



Figure 12. Median strip of the subject section

The function of the culverts is to make work easier for atmospheric self-intake duct or for the leaking of land-reclaimed canal.

Overall, the flumes are in good condition.



Figure 13. The flumes on the subject section

As far as the historic monuments and protected resources are concerned, on the subject section, according to the data from the requirements of the Institute for Protection of Cultural Monuments Sremska Mitrovica, no archaeological resources were determined. The rehabilitation works are allowed to be done in compliance with the requirements stated in the Decision.

The following commercial structures and facilities were identified along the observed section:

- Motel Uzelac at km 58+950 (right side) (Figure 14. Motel Uzelac at km 58+950 (right side))
- Rest area at km 62+400 (left side) (Figure 15.)
- Petrol station "OMV" at km 66+500 (left side) (Figure 16.)



Figure 14. Motel Uzelac at km 58+950 (right side)



Figure 15. Rest area at km 62+400 (left side)



Figure 16. Petrol station "OMV" at km 66+500 (left side)

When it comes to pollution and the noise source on the subject section, there is only the existing road as a linear source of noise and pollution.

Current traffic load (AADT) on this road section is 16689 vehicles per day. The data were obtained from the PERS website (automatic traffic counter marked "NP" for 2017)<sup>2</sup>.

#### Settlements

Ruma is located on the north-wester part of Serbia and the southwestern part of Vojvodina, on the contact of three different morphological parts: the plains of Srem, the plains of Macva and the hills of Fruska Gora.

It is located between the Danube and Sava rivers, at the foot of Fruska Gora. Ruma covers the area of 582 square kilometers. A special geographical curiosity is that the 45<sup>th</sup> parallel is crossing it and it is only about 15 km away from the 20<sup>th</sup> meridian. The town center is at 111 m of altitude. According to the population census in 2011, 30.076 inhabitants are recorded.

The municipality of Ruma stretches on the part of middle and southern Srem, and occupies the area of 582 km<sup>2</sup> (43943 ha of which is agricultural area, and 5.975 ha forest covered area). The seat of the municipality is the town of Ruma. Ruma municipality consists of 17 settlements: Budjanovci, Vitojevci, Voganj, Grabovci, Dobrinci, Donji Petrovci, Zarkovac, Klenak, Kraljevci, Mali Radinci, Nikinci, Pavlovci, Platicevo, Putinci, Stejanovci, Hrtkovci.

The municipality of Pecinci is located in the lower Srem, close to the river Sava, south from the motorway Belgrade-Zagreb. Pecinci, as the administrative center of

<sup>&</sup>lt;sup>2</sup> http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobracajnog-opterecenja-na-drzavnim-putevima-IA-reda.pdf

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the municipality is located 43 km away from Belgrade, 30 km from Sremska Mitrovica, 15 km from Ruma, 19 km from Stara Pazova, 22 km from Indjija and 40 km from Sabac. The settlements in the municipality are: Asanja, Brestac, Dec, Donji Tovarnik, Karlovcic, Kupinovo, Obrez, Ogar, Pecinci, Popinci, Prhovo, Sibac, Sremski Milhaljevci, Subotiste and Simanovci.

The subject section goes through the following cadastral municipalities:

- CM Ruma
- CM Dobrinci
- CM Sibac
- CM Pecinci

Section Interchange Ruma – Interchange Pecinci does not pass through settlements.

#### Natural resources and cultural heritage

As far as the historic monuments and protected resources are concerned, on the subject section, according to the data from the requirements of the Institute for Protection of Cultural Monuments Sremska Mitrovica, no archaeological resources were found.

According to the conditions of the Provincial Institute for Nature Protection, the subject section does not go across the protected natural resources, nor across the habitats of strictly protected or protected species.

The works are allowed only by adhering to the conditions set out in the Decisions. It is necessary for a Contractor to inform the relevant institution about the date and time for beginning the works on the subject section.

#### Railway traffic

The section of the road IA class no. 3 section: Interchange Ruma – Interchange Pecinci at the approximate chainage km 60+752 crosses the railroad Ruma – Sabac at grade separated intersection, as well as with the road of lower rank.



Figure 17. Overpass across the railroad Ruma - Sabac at km 60+752

Overall, the bridge is in a good condition. Drainage is performed using gullies, the condition of which is generally good, to the base of the bridge.

The width of the carriageway and the paths on the bridges (traffic profile) keep the same dimensions compared to the current state. The design will foresee controlled water drainage in front of and behind the bridge, as well as the solution for crossing from road shoulders to the bridge.

#### Watercourses

The road section IA class no. 3 Interchange Ruma – Interchange Pecinci intersects the canal Jarcina at the chainage at km 65+040

It is important to note that the rehabilitation works of the bridge over the watercourse will not jeopardize the duct (the flowrate of duct will not be reduced during the execution of works).



Figure 18. canal Jarcina at km 65+040

The aforementioned canal is a part of the land reclamation system of the water management company Vode Vojvodine.

The previous conditions of the public water management company Vode Vojvodine define the following land-reclaimed canals which intersect the subject section (Table 3. Land-reclaimed canals owned by the public water management company Vode Vojvodine).

No.	Canal name	Chainage	The level of the designed canal bottom	The level of the field, left and right bank	Slope of the canal	Width of the bottom of canal	High waters level	Notes
		km	mnm	mnm		m	mnm	
1	Canal no. 34	0+370 L=2m	89,70	90,88 90,92	1:1,5	0,80	90,50	Intersection with the canal - downstream profile - bypass Rumska intercahnge
2	Rumsko- granicni 2	2+100 L=1m	89,12	90,09 90,00	1:1,5	0,80	89,82	Intersection with the canal - downstream profile
3	Rumsko- granicni 27-1	0+280 L=1m	89,00	90,00 90,00	1:1,5	0,60	89,50	Intersection with the canal - downstream profile
4	Rumsko- granicni 1	2+475 L=2m	87,40	89,73 89,64	1:1,5	0,80	88,20	Intersection with the canal - downstream profile
5	Canal next to the railroad	2+600	85,50	86,40 86,40	1:1,5	0,60	86,00	Overpass across the railroad Ruma-Sabac km 60+750 of the motorway - downstream profile
6	J-1037	L=2m	81,75	83,70 83,70	1:1,5	0,80	83,04	Intersection with the canal - downstream profile
7	Jaracka Jarcina	11+660	79,53	83,98 86,66	1:1,5	7,0	81,83	Intersection with the canal - bridge across the canal - km 65+040 of the motorway - downstream profile

Land-reclaimed canals number 1, 2, 3, 4 and 6 are taken through the road base using culverts. Figure 19. gives the position of the intersection of land-reclaimed canals with the subject roadway.



Figure 19. The places of intersection of the land-reclaimed canals with the subject section

#### **Culverts**

It is concluded, based on the geodetic survey, that there are 20 culverts (3 pipe, 13 arched, 4 box culverts).

All the recorded culverts are recorded in Table 4.

No.	Chainage	Function	Shape	Cross section	Material
1	57+300	Absorbing atmospheric water	Pipe	Ø1000	Concrete pipe
2	57+355	Absorbing water from the land reclamation canal	Arched	H=1600mm	Concrete
3	57+540	Absorbing atmospheric water	Pipe	Ø1000	Concrete pipe
4	58+059	Absorbing atmospheric water	Arched	H=1000mm	Concrete
5	58+447	Absorbing atmospheric water	Arched	H=1000mm	Concrete
6	59+237	Absorbing water from the land reclamation canal	Arched	H=1500mm	Concrete
7	60+390	Absorbing atmospheric water	Arched	H=1000mm	Concrete
8	61+625	Absorbing atmospheric water	Arched	H=1000mm	Concrete
9	63+118	Absorbing atmospheric water	Arched	H=1000mm	Concrete
10	63+965	Absorbing water from the land reclamation canal	Arched	H=1700mm	Concrete
11	65+573	Absorbing water from the land reclamation canal	Arched	H=1000mm	Concrete
12	66+025	Absorbing water from the land reclamation canal	Box	3000x2800	Concrete
13	66+416	Absorbing atmospheric water	Arched	H=1000mm	Concrete
14	67+170	Absorbing atmospheric water into land reclamation canal	Box	3000x2700	Concrete
15	68+108	Absorbing atmospheric water	Arched	H=1000mm	Concrete
16	68+508	Absorbing atmospheric water into land reclamation canal	Box	3000x2800	Concrete
17	69+511	Absorbing atmospheric water	Arched	H=1000mm	Concrete
18	69+494	Absorbing atmospheric water	Box	3000x2800	Concrete
19	69+586	Absorbing atmospheric water	Pipe	Ø1000	Concrete pipe
20	70+264	Absorbing atmospheric water	Arched	H=1000mm	Concrete

Table 4. The list of recorded culverts on the subject section

The basic function of a culvert is to relieve the self-intake ducts, as well as to take certain land-reclaimed canals through the road base.

Overall, the culverts are in good condition. Certain structural damages that appear are mostly damages of inlet-outlet structures, not the culverts in the road base. Slightly degraded concrete was recorded.



Figure 20. Arched culvert at km 57+355



Figure 21. Box culvert at km 66+025



Figure 22. Pipe culvert at km 57+300

The interventions on culverts will mainly include cleaning them, rehabilitation of degraded concrete surfaces, as well as rehabilitation of smaller structural damages.

## Grade separated intersection of the road section with lower rank roads

There are three grade separated intersections on the subject section (where lower rank roads cross above the subject section) on the following locations:

- Overpass at km 57+850 (Figure 23.)
- Overpass at km 65+320 (Figure 24.)
- Overpass at km 68+200 (Figure 25.)



Figure 23. Overpass at km 57+850



Figure 24. Overpass at km 65+320



Figure 25. Overpass at km 68+200

#### Air

Within the observed section Interchange Ruma – Interchange Pecinci there are no additional air pollutions. The data on the values of air pollution which were measured on the observed section were not available. Based on the experience and the expected traffic intensity during and after the planned rehabilitation works, on the corridor of the subject road section, a larger increase in the traffic intensity is not expected, nor an increase in the level of air pollution as a product of exhaust gases.

During the road rehabilitation phase it is expected to have the increase in the concentration of pollutants in the air.

#### Noise

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

## 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 the Provincial Institute for Urban Planning and Environmental Protection, Provincial Institute for Nature Protection, Institute for Protection of Cultural Monuments of Sremska Mitrovica and Public Enterprise "Roads of Serbia" (PERS).

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

- Institute for Protection of Cultural Monuments Sremska Mitrovica no. 412-07/17-03 dated 07.09.2017.
- Provincial Institute for Nature Protection 03-2047/2 dated 17.08.2017.
- Provincial Institute for Urban Planning and Environmental Protection, no. 140-501-375/2018-05 dated 06.03.2018.
- Public Water Management Company Vode Vojvodine no. I-323/8-18 dated 25.06.2018.

#### Existing Serbian legislation

The environmental protection in the Republic of Serbia is regulated by various laws and by-laws at national and municipal level. The existing laws in the environmental protection area are given in APPENDIX 3.

## The Procedure of Environmental Impact Assessment in the Republic of Serbia

In the legal system of the Republic of Serbia, the procedure for environmental impact assessment is regulated by the Law on Environmental Impact Assessment (Official Gazette no. 135/2004, 36/2009), which is completely in accordance with the European Directive EIA - 85/337/EEC. According to this, the EIA study is not necessary for road rehabilitation projects, except for those sections which are located within or nearby protected natural and cultural areas. In this case the proposer of the project needs to submit to the relevant ministry the request for making a decision about the need for making the environmental impact assessment. Depending on the estimate and the 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 Environment Protection. The decision states that for the projects of urgent maintenance, rehabilitation and removing of road damages, according to the criteria stated in the Decree, there is no need for making environmental impact assessment.

The approval was obtained from the Provincial Secretariat for Urban Planning and Environmental Protection (no. 140-501-375/2018-05 dated 06.03.2018.) that <u>it is not</u> necessary to conduct the EIA study.

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

# Relevant International Financial Institutions (IFIs) – policies and statements

IFIs request that the following requirements be applied to all of the works:

- World Bank: Operational Policy OP 4.01, environmental impact assessment, which requires a partial Environmental Impact Study and a suitable EMP for environmental category B projects;
- EBRD: Environmental and Social Guidelines 2008;
- EIB: Statement on Ecological and Social Principles and Standards (2008).

EBRD and EIB request that the design be made in line with the laws of the Republic of Serbia and EU standards. However, the regulations of the Republic of Serbia do not provide for an EMP to be made for this type of investment, while the World Bank guidelines require a partial Environmental Impact Assessment 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 4.12.
underground and surface water	Low	Due to low amount of water that can come to the recipient by drainage, the consequential impact is minimal to 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 Ruma - Pecinci 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), Design does not require any land acquisition, resettlement or long-term disturbance of human activities.

EMP relates to the road rehabilitation phase and is part of the relevant agreement for implementation and future commitment of the Contractor. The following problems may occur during the rehabilitation works: disturbance in the 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 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**

EMP focuses more on the heavy maintenance phase, while activities on the regular maintenance will not be detailed 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;
- 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 it can partially cause adverse impacts.

In the phase of the execution of works (in the period when the type of works are such, that it is expected to have increased dust emission), the construction site needs to be wetted 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 such a 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 won't be used in this project. The sound barriers can be placed only on places where it is "reasonable" and "useful" which is not the case with this road rehabilitation project.

#### Possible water contamination

Water pollution may occur on site, on the locations where the equipment, vehicles and machinery are washed and also on the parking area. 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 a location defined in the Law on Water.

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

#### Potential Cumulative Impacts

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

If the EMP is properly implemented, all negative effects on the people and the environment resulting from cumulative impacts will be reduced.

#### **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 in this. Impact of these types of activities is expected to cease when the Project is ended and the Contractor leaves the subject location;
- execution of works will have an impact on increasing travel time, as well as
  possible standstills on the subject section, particularly during the holidays
  and summer seasons (if the works are conducted at that time);
- pollution: during the heavy maintenance works, a steady, though 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 site and transported onto a landfill, outside the site zone

• Solid waste: activities on the heavy road maintenance are expected to generate a certain amount of solid waste, which is collected on site and transported onto a landfill, outside the site zone.

For the subject sections (municipalities of Ruma and Pecinci) there are local waste management plans<sup>3</sup>, as well as a Regional plan for waste management for municipalities of: Indjija, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova<sup>4</sup>.

<sup>&</sup>lt;sup>3</sup> <u>http://www.sepa.gov.rs/download/UpravOtpad/PecinciLPUO.pdf</u> <u>http://www.ruma.rs/portal2/jupgrade/dokumenta/ekrazvoj/Lokalni%20plan%20upravljanja%20otpadom%20Ruma.pdf</u>

<sup>&</sup>lt;sup>4</sup> <u>http://www.sepa.gov.rs/download/UpravOtpad/RPUO\_IndjijalrigRumaSremskiKarlovciSidStaraPazova.pdf</u>

## 5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the section Interchange Ruma – Interchange Pecinci 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. EMP consists of the Mitigation Plan and Monitoring Plan and 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 (Provincial Institute for Nature Protection and the Institute for the Protection of Cultural Monuments Sremska Mitrovica, PWMC Vode Vojvodine) valid laws and contract 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.

EMP is a part of the works program and the Contractor shall apply it through qualified and experiences staff which will be responsible for fulfilling the requests connected to the environmental protection from EMP. The Contractor and his subcontractors will work in full compliance to 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 to the EMP. The Contractor's obligation is to include the cost of Mitigation measure 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 the external cooperation work 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 a Resident Engineer. 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 area of Jarcina canal 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 tipping of debris and other waste material in any form and communal waste produced during the works. Waste disposal/dumping in the zone of Jarcina canal, as well as smaller temporary watercourses, as well as on the agricultural land shall be prohibited; Local waste management plans for the municipalities of Ruma and Pecinci<sup>5</sup>, as well as Regional waste management plan for municipalities of: Indjija, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova<sup>6</sup> should be checked in order to choose suitable locations.
- 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 such area was found prior to the beginning 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 road work immediately next to the Jarcina canal or a smaller temporary watercourse, 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 deposit any kinds of waste, and particularly not construction site waste, in the zone of Jarcina canal nor any other watercourse (regardless whether it is a temporary watercourse).
- In the zone of crossing the road across the watercourse, where it is necessary to make the 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 beds of river courses;
- Vehicle and machinery servicing on the road section shall be prohibited. In the event of a road traffic accident resulting in oil or service fluids spillage, the road area must be cleaned and reinstated;

<sup>&</sup>lt;sup>5</sup> <u>http://www.sepa.gov.rs/download/UpravOtpad/PecinciLPUO.pdf</u>

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

<sup>&</sup>lt;sup>6</sup> <u>http://www.sepa.gov.rs/download/UpravOtpad/RPUO\_IndjijalrigRumaSremskiKarlovciSidStaraPazova.pdf</u>

- On the parts where the section is located in a populated area the works must be performed only during the day, to minimize the impact of noise from local construction machines and vehicles;
- Maintain the maximum level of municipal hygiene throughout the works along the entire route. Define the locations for placement of containers for temporary disposal of waste within the roadside area;
- 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 site must be provided. Asphalt areas including locations used for car parking, workshops and fuel storages must be drained toward the oil-water separator;
- Sanitary wastewater and polluted water must be treated before the water is discharged into the recipient (surface water flow system), in line 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 (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;
- Apply a methodology for the protection and conservation of soil from the areas susceptible to erosion, in order to reduce the runoff of atmospheric waters 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

Having 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 the team, which 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 The Contractor will be requested to rectify such irregularities.

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

- <u>Site Management Plan</u>. CEP should consist of the procedures for setting up and functioning of a site with a view to preserving the local community and natural resources;
- <u>Site Organization Plan</u> 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 oils and fuels are to be stored in the secondary storages the capacity of which is at least 110 % and each spill is to 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 line with the Plan which is to 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. are to 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 locations, the local waste management plans for municipalities Ruma and Pecinci<sup>7</sup>, are to be consulted, as well as the Regional waste management plans for the municipalities of: Indjija, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova<sup>8</sup>. 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

<sup>&</sup>lt;sup>7</sup> <u>http://www.sepa.gov.rs/download/UpravOtpad/PecinciLPUO.pdf</u>

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

<sup>&</sup>lt;sup>8</sup> <u>http://www.sepa.gov.rs/download/UpravOtpad/RPUO\_IndjijalrigRumaSremskiKarlovciSidStaraPazova.pdf</u>

storing solid and liquid waste. All types of waste leaving the site must be controlled and recorded. As part of the Plan, Contractor shall provide chainof-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. 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>Sewerage 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 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), 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 07:00 am to 07:00 pm), so that there is no reason for the people from the local community to report any kind of night activities as disturbances;
- <u>Dust Emission Reduction Plan</u> should have the water spraying schedule for the access roads and the settlements nearby, which are located along the road which 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, Contractor shall monitor the conditions on site and application of measures to control dust emissions, which include reduced traffic during road rehabilitation works and spraying water on 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>Material Excavation and Extraction Location Plan</u> as well as the reparation measures to be implemented for the areas of borrow-pits and access roads after the project is finished;
- <u>Management Plan for Works on the River</u>. CEP should cover procedures and plans for water habitat and fish preservation during the works on the river and it should be an integral part of the Construction Technology;
- <u>Emergency Response Plan</u>. CEP sets out the procedures for reacting in case of accidents or large incidents, to protect the people, property and

natural resources. It is necessary to provide the equipment to be brought on site to minimize the effects of the spillage;

- <u>Recultivation Plan</u>: cleaning and recultivation of the site and removal of Contractor's facilities. Contractor is responsible for clearing the site. This includes the removal of all waste material and any kind of contaminated soil. In line with the Law on Waste Management (RS Official Gazette No 36/2009, 88/2010 and 14/2016), Contractor shall develop a plan for handover, selling or removal of all vehicles and machinery, to remove them from site. All site and work areas will be rehabilitated, in order to be reinstated as much as possible. This includes stabilization and landscaping of all sites. In line 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), after the works are completed, waste must not remain on site. If waste is not removed by the Contractor, PERS is entitled to withhold payment and organize the 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</u> <u>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 should be addressed (e.g. through conversations, consultations etc.) (see Appendix 4, Project Grievance Mechanism);

## Safety

Contractor should identify potential risks before the commencement of works. The emergency response provisions should include a 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 a week before the commencement of the works.

- Contractor shall ensure that drugs and alcohol are not used on site;
- Contractor is to include in his Site Safety Plan 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;
- Site Safety Plan is to include a provision for first aid to be administered on site and a trained person must be engaged in line with the Law on Occupational Health and Safety (RS Official Gazette No 101/2005, 91/2015 and 113/2017-st.law);
- Contractor shall provide to his workers potable water supply, toilets and water supply for washing;

- Safety Labour Management Plan (SLMP) prepared by PERS, is required to ensure health and safety provisions during the works on heavy maintenance;

PERS and the Contractor are jointly 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. Contractor shall ensure that the 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 the 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 shall be controlled.

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

## **Operational Phase**

In the road operational phase, special attention must be paid to safety of pedestrians, by using measures for traffic calming in the vicinity of schools and populated areas, improving road signs and markings, keeping a record of traffic accidents that are recurring 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 Project (APPENDIX 2). Basic components of the Monitoring Plan are the following:

Defining the environmental issues which are to 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 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 start of the works on this section, PERS will submit to the Bank for their approval this part of a specific EMP.

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

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

I. 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. 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. Contractor will be deemed to have included these costs in the other items from the BoQ. 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 non-conformances 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. Contractor must be explicitly requested to employ an environmental expert. Contractor will be responsible for implementing environmental mitigation measures during road rehabilitation works and should employ an environmental specialist 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 in cooperation with PERS appoint a committee to deal with every complaint received during the project implementation. In the course of the project, PERS will monitor if the Contractor complies with EMP provisions. Project Supervision Consultant is advised to employ an environmental expert (with knowledge of civil engineering and environmental management), to assist in environmental monitoring.

When the project is completed, PERS will be responsible for the operation and maintenance of roads. Routine and random monitoring will be undertaken as scheduled in the Monitoring Plan.

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 start of the road rehabilitation works, the Contractor will provide a proposal for environmental protection, including the safety of persons involved with the works, as part of the EMP. The proposal will be reviewed by PERS for acceptance.

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 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 line 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 were held and the report has been submitted within the EMP in Appendix 5.

Contractor will prepare, as quarterly progress reports, the reports for PERS, which would present all the measures for environmental protection and mitigation measures, along with the anticipated activities for monitoring, which were performed during the reporting period. 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 the event of any accidents or environmental threats, there will be immediate reporting about these events. Contractor shall inform the project manager and local authorities immediately after the accident. If the project manager is not available, Contractor shall inform PERS about the accident.

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 applies to the complaints of all interested parties. The complaint form is shown in the APPENDIX 4, while hard copies will be available in local community centers.

# 6. STAKEHOLDER ENGAGEMENT – INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

As requested by IFI safeguard policy, public consultations were held in 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 45 to this document and contains a list of identified participants.

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 start of the works, PERS will provide 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 applies to the complaints of all interested parties. The complaint 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 4 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 30/11/2003.

8. APPENDIX 1

## **MITIGATION PLAN**

Phase	Issue		Responsibility		Comments
		Mitigation measure	Implementation	Supervision	
<u>Pre-</u> construction					
	Following the environmental protection procedure	Main Design Designer obtained and implemented the conditions from the relevant institutions regarding the environmental protection (Provincial Secretariat for Urban Planning and Environmental Protection, Provincial Institute for Nature Protection, Institute for Cultural Monuments Protection 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 Contractor facilities and a construction site organization	<ul> <li>The location must be approved by PERS.</li> <li>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 zone of Jarcina canal, as well as the space with high vegetation.</li> <li>The locations will be chosen in such a way that have no impact on the environment and the local community (noise, dust, vibrations).</li> <li>minimize the size of the facilities to minimize the unnecessary removal of vegetation</li> <li>have the sanitary waste water treated before the water is discharged into the surface water system</li> <li>Paved areas, including parking areas, workshops and fuel storages must be drained toward an oil-water separator and the areas for fuel storage must be located at a distance larger than 20 m away from the watercourse.</li> <li>Avoid mechanical topsoil degradation.</li> <li>Prevent soil erosion on site.</li> <li>limit the scope of the excavations to mitigate possible soil erosion.</li> <li>avoid excavation and machine operations in damp site conditions.</li> </ul>	Main Design Designer / 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.	<ul> <li>minimum distance must be kept (buffer zone) between the site and the nearest populated area</li> <li>- influence of the local conditions must be accounted for (wind) to avoid or minimize harmful effects</li> <li>contractor's EMP defines health and safety and environmental measures</li> <li>independent water and electricity supply, in addition to a medical service station with a trained employee on site must be planned for</li> </ul>	Contractor	PERS	
	Safety of pedestrians and suitable crossings	- a suitable pedestrian crossing must be provided, equipped with curb ramps that allow the use of wheelchairs, trolleys, bicycles and prams.	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	
<b>Construction</b>		Site induction	-	
	Construction site safety	All workers and visitors to the site shall be given a health and safety induction and instructed on the need to use PPE.	Contractor's expert for H&S and environmental issues	
	<ul> <li>requirements have been met:</li> <li>Site Organization Plan</li> <li>Sewerage and Wastewater Manageme</li> <li>Complaints procedure</li> <li>Soil Management Plan</li> <li>Dust Management Plan</li> <li>A plan indicating the location of borrow is completed</li> </ul>	-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	
<b>Construction</b>		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	
	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	5
	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	
<b>Construction</b>		Material transportation		

Technical control / PERS	
Supervising Authority	
Supervising Authority / PERS	
Asphalt plant / Supervising Authority	
Quarry / Supervising Authority	Pid supplier /
Contractor or gravel and sand separation facility / Supervising Authority	Bid supplier / Approved supplier
Concrete plant / Supervising Authority	

	Dust, asphalt, fumes	All trucks need to be covered	Truck operator	
	Stone / Dust	wet / covered truck load	Truck operator	
	Sand, Gravel, dust	wet / covered truck load	Truck operator	
	Cement, concrete	Remove the fresh concrete which was negligently spilled from the mixer from the transport roads within 6 hours. It is forbidden to spill the excess concrete on the subject section, except on the designated areas.	Truck operator	
	Traffic noise exhaust fumes and road congestion	Obeying the working hours (desirable 9-14 hours); the use of alternative routes to reduce the usage of the main roads to the minimum. Adequate temporary road signage	Person in charge of transportation / truck operator	(
<b>Construction</b>		Construction site		
	negative impact of noise on the workers and local community and fauna	<ul> <li>limit the activities to daylight working hours (no works between 8 in the evening and 7 in the morning) or work during the specified period, but with the approval of the population and management;</li> <li>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;</li> <li>use equipment with noise mufflers, licensed and approved in accordance with the EU standards</li> <li>use noise barriers for the works that produce noise for more than one day on the same location</li> </ul>	Contractor	
	Dust	<ul> <li>Measures to be introduces: <ul> <li>avoiding/reducing to a minimum dust emission,</li> <li>wetting/spraying the construction site, 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</li> <li>spraying site access,</li> <li>spraying material stockpiles during the process of loading and unloading;</li> <li>covering the vehicles which carry dusty materials;</li> <li>spraying/cleaning wheels on the vehicles;</li> <li>limiting the speed of movement for vehicles,</li> <li>cleaning the construction site.</li> </ul> </li> </ul>	Contractor	
	Vibrations	- limit activities to daylight working hours (no works between 8 in the morning and 7 in the morning) 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	

Truck operator / Supervising Authority	
Truck operator / Supervising Authority	
Truck operator / Supervising Authority	
Truck operator / Supervising Authority	
Person in charge of transportation / truck operator / Supervising Authority	
Supervising Authority	
Supervising Authority	
Supervising Authority	

Traffic disruption during construction activities	<ul> <li>Traffic Management Plan with appropriate measures for traffic diversions that can be easily noted and followed;</li> <li>Including traffic police assistance if necessary</li> <li>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.</li> <li>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</li> <li>inform the local community about the works planned</li> </ul>	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	<ul> <li>organize and cover material storage areas;</li> <li>isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers;</li> <li>Washing the trucks for concrete and asphalt, as well as washing other machinery is to be done exclusively in registered car washes;</li> <li>Organize the 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).</li> <li>Soil Management Plan must be prepared to control removal, storage and re-use of topsoil.</li> <li>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 embankment slope optimal and the slope edges sharp (steep),</li> <li>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.</li> </ul>	Contractor

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

	Soil and water pollution from improper waste material disposal	<ul> <li>dispose waste material at a location protected from washing out, on a marked location, if not on site, then on an authorized landfill (In order to choose locations check the local waste management plan for Ruma municipality</li> <li>http://www.ruma.rs/portal2/jupgrade/dokumenta/ekrazvoj/Lokalni%20plan%20upravljanja%20 otpadom%20Ruma.pdf</li> <li>as well as Pecinci (http://www.sepa.gov.rs/download/UpravOtpad/PecinciLPUO.pdf), also the Regional plan for Waste Management for municipalities: Indjija, Irig, Ruma, Sremski Karlovci, Sid and Stara Pazova http://www.sepa.gov.rs/download/UpravOtpad/RPUO_IndjijalrigRumaSremskiKarlovciSidStaraPazova.pdf).</li> <li>Waste disposal in accordance with best international practice (IFC, EHS – general guidelines).</li> <li>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.</li> <li>Using and labelling the containers planned for waste collection, as well as the areas for disposing different types of waste (hazardous and nonhazardous).</li> <li>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.</li> <li>train the drivers in handling and disposal of the load (waste) and its degree of hazard.</li> </ul>	Contractor	Supervising Authority	
	Potential contamination of soil and water from improper maintenance and fueling of equipment	<ul> <li>Disposing of and handling lubricants, fuel and solvents is to be performed exclusively in the secured area and storage with concrete base;</li> <li>ensure proper loading of fuel and equipment maintenance;</li> <li>collect all waste and dispose it on authorized recycling locations</li> </ul>	Contractor	Supervising Authority	
	Safety of workers	<ul> <li>provide workers with safety instructions and PPE</li> <li>provide a safe alternative traffic flow</li> </ul>	Contractor	Supervising Authority	
	Landscaping	<ul> <li>Undertake re-vegetation with native species and monitor the effects.</li> <li>Where initial plantings were not successful, carry out re-planting.</li> <li>Avoid invasive species those that cause allergic reactions</li> </ul>	Contractor	Supervising Authority	
	Possibility of an archaeological site existence	In case the Contractor comes across an archaeological site, he is obliged to stop the works immediately and inform the relevant Institute for Protection of Cultural Monuments and PERS	Contractor	Supervising Authority	
<u>Operation</u>		Special measures defined by the conditions of releva	nt institutions		

Provincial Institute for Nature Protection	<ul> <li>For the rehabilitation of the carriageway surfacing, a material is used, which, from the aspect of protection should comply with the following requirements: reduction in the noise and vibration level, enabling efficient water drainage from the carriageway surface and similar;</li> <li>Level the terrain upon completion of the works for the purpose of reducing the possibility of weeds spreading;</li> <li>For solid waste disposal, use the containers which provide insulation of waste materials from the surrounding. The containers are to be regularly emptied by the appropriate utility service;</li> <li>Lubricant and fuel required for the machines need to be transported, stored and handled complying with the measures prescribed by statutory regulations relating the hazardous substances;</li> <li>In case of accidental spillage of pollutants in the habitat of protected and strictly protected wild species of plants, animals and fungi or in the impact zone, the polluted layer of soil must urgently be removed and placed in the adequate package that can be emptied only on the landfill intended for this purpose, outside the area of natural habitats. On the place of the accident, a new, uncontaminated layer of soil is to be placed. The conditions for the revitalization of terrestrial and aquatic habitats is to be issued from this institute.</li> </ul>	
Institute for Protection of Cultural Monuments Sremska Mitrovica	<ul> <li>A constant archaeological supervision by an expert service of this institute is mandatory during the execution of earthworks on the construction;</li> <li>If during the earthworks an archaeological site or an archaeological object is found, the Contractor is obliged to terminate the works without delay and inform the Institute for Protection of Cultural monuments in Sremska Mitrovica, as well as to take measures that the finding is not damaged and that it is preserved in one place in the position in which it was found, in accordance with the article 109, paragraph 1 of the Law on Cultural Heritage;</li> <li>It is the duty of the Investor to provide funds for monitoring, protection and preservation of the discovered remains which require previous protection;</li> <li>It is obligatory to report the commencement of earthworks to the Institute for the protection of Cultural Monuments in Sremska Mitrovica.</li> </ul>	

	negative impact of noise on local residents, animals and workers	<ul> <li>limit activities to daylight working hours (no works between 8pm and 7am or in accordance with the public consent);</li> <li>use the equipment with noise mufflers installed</li> </ul>	Contractor of works on maintenance
<u>Operation</u>		Maintenance	
	Public Water Management Company VodeVojvodine Novi Sad	<ul> <li>Technical documentation id to be made in accordance with the statutory regulations and norms for this type of structure</li> <li>The subject section intersects the following land-reclamation canals (APPENDIX 6)</li> <li>It is forbidden to discharge into land-reclamation canals and other watercourses, any kind of water, except for, conditionally clean atmospheric water and purified waste waters to the quality prescribed by the Decree on limit values of emission of pollutants in water and the deadlines for reaching those (.Off. Gazette RS", no. 67/11, 48/12 and 01/16) in order to maintain the II class inside the recipient and not violate the minimal ecological potential of the surface water for artificial water bodies in accordance with the Decree on limit values in the surface and underground waters and sediments and the deadlines for reaching those (.Off. Gazette RS", no. 67/11, 48/12 and 01/16) in order to maintain the II class inside the recipient and not violate the minimal ecological potential of the surface water for artificial water bodies in accordance with the Decree on limit values in the surface and underground waters and sediments and the deadlines for reaching them (.Off. Gazette RS", no. 50/12)</li> <li>In the belt of working-inspection path, the width of which is 5.0m in the construction area, or 10.0m in the non-populated area, from the edge of the canal on the left and right bank, the construction of ground structures is not allowed, and the underground structures need to be buried at least 1.0m and protected from heavy construction machinery which works on the canal network maintenance.</li> <li>In case where the atmospheric water goes into the land-reclamation canal, at the place of the inlet of the structure should be planned and it must not interfere with the flow profile of the canal.</li> <li>Upon the completion of the works, the canal profile and the surrounding terrain need to be cleaned from the remaining construction material or the soil from the excavation, and all the rest o</li></ul>	

Contractor of works on maintenance / PERS	It should be specified in the contract maintenance

Potential air, water and soil pollution: dust, exhaust fumes, spilt fuel, oil and lubricants	<ul> <li>apply the best engineering practice in handling and safe storage of lubricants, fuel and oil in secured storages;</li> <li>ensure proper loading of fuel and maintenance of equipment;</li> <li>collect and dispose all waste in accordance with the Law on Waste Disposal;</li> <li>properly organize and cover the areas for material storage;</li> <li>isolate concrete and asphalt works from the watercourse by using sealed formwork;</li> <li>washing the vehicles and construction machines is exclusively to be done in registered car washes</li> <li>dispose the waste material to suitable locations protected from washing out</li> </ul>	Contractor of works on maintenance
Vibrations	limit activities to daylight working hours (no works between 8pma and 7am, or as agreed with the public and authorities)	Contractor of works on maintenance
Safety of workers	<ul> <li>provide workers with safety instructions and PPE;</li> <li>organize safe traffic bypass using alternative roads and appropriate traffic signage.</li> <li>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.</li> </ul>	Maintenance contractor
Maintenance	<ul> <li>Regularly maintain curbs;</li> <li>Mow and maintain grass and take it to the landfill;</li> <li>Regularly clean drainage structures (gullies) and deposit the waste material on the specially designated landfill;</li> <li>Regularly clean the road surface,</li> <li>Fill in the holes, joints and cracks;</li> <li>The remains of asphalt after works should be transported and stored on an appropriate landfill designated for construction materials;</li> <li>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;</li> <li>Make repairs</li> </ul>	Maintenance contractor
increased vehicle speed	install speed limit signs	Maintenance contractor
Erosion, rockfall, hazardous situation	<ul> <li>install suitable warning signs (rockfall, landslide, wet or slippery conditions, dangerous curve, animal or pedestrian crossing, school, slow traffic zone, merging),</li> <li>reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility;</li> <li>warning signs on locations considered appropriate in line with good engineering practice or as agreed with the authorities</li> </ul>	Maintenance contractor

Contractor of works on maintenance / PERS	documentation – Техничке Спецификације за извођење радова на одржавању
Contractor of works on maintenance / PERS	
Maintenance contractor / PERS	
Maintenance contractor / PERS	
Maintenance contractor / PERS	It should be specified in TS in the part about maintenance works
Maintenance contractor / PERS	

9. 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	Why are the parameters	Institutional responsibility			
	be monitored? monitored? /types of monitoring equipment		(frequency or continuous)	monitored? (randomly)	Implementation				
<b>Construction</b>	tion Material supply								
Asphalt plant	Possession of an official approval or valid (operating) license	Asphalt plant	Inspection / Supervising engineer	Prior to the start of works		Plant manager			
Quarry	Possession of an official approval or valid (operating) license	Quarry	Inspection / Supervising engineer	Prior to the start of works	Ensure compliance of the plant with the	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 start of works	environmental protection and health and safety at work	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 start of works		Manager of a concrete plant			
<b>Construction</b>		•	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 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			

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	/types of monitoring equipment (frequency or continuous)		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, 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
Traffic guidance	Chosen hours and routes	Construction Site	Supervision	Unannounced inspections during the works, at least once a week	Ensure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Supervising Authority Contractor
<b>Construction</b>			Constru	ction Site		
Adverse effects of noise on the workers and local residents	Noise levels	Construction site; nearby houses, accompanying facilities along the route (Petrol stations, rest areas)	equipment – manual equipment for analyzing (detecting the level of noise) with the software for its application	<ul> <li>Once, at the beginning of the project</li> <li>quarterly,</li> <li>due to grievances.</li> <li>If the tracking results are not satisfactory, it is to be prepared on a monthly level</li> </ul>	Ensure the compliance 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	<ul> <li>Unannounced sampling;</li> <li>analysis in a certified laboratory possessing the required equipment</li> </ul>	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	Ensure the compliance with the health and safety and environmental requirements.	Contractor's supervision (monitoring)
Dust	Air pollution (solid particles)	On and near the construction site, landfill, quarry	Inspection and visual observation	Unannounced inspections during the delivery of materials and construction	Ensure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision (monitoring)

Phase	Which parameters to be monitored?	Location where the parameter is monitored?	How the parameters are monitored? /types of monitoring equipment	When the parameter is monitored (frequency or continuous)	Why are the parameters monitored? (randomly)	Institutional responsibility 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	existence of a Traffic Management Plan and traffic pattern	On the construction site	Inspection; supervision	<ul> <li>Prior to the start of works;</li> <li>once a week in the periods with the largest amount of works and</li> <li>calm periods when the quantity of activities is not the highest</li> </ul>	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 and near the site	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
<b>Operation</b>			Maint	enance		
negative effect of noise on the workers and local residents	Noise levels	Construction Site; nearby houses, accompanying facilities along the road (Petrol stations, rest areas)	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
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

Phase	Which parameters to	Location where the parameter is	How the parameters are monitored?	When the parameter is monitored	Why are the parameters	Institutional responsibility	
	be monitored?	monitored?	/types of monitoring equipment	(frequency or continuous)	monitored? (randomly)	Implementation	
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	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 🗖	If no, please provide details of any material non-compliances:
	No 🗖	
Is the project compliant with all applicable environmental and social laws	Yes 🗅	If no, please provide details of any material non-compliances:
and regulations?	No 🗖	
Have there been any accidents or incidents that have caused damage to	Yes 🛛	If yes, please describe, including details of actions to repair and prev
the environment, brought about injuries or fatalities, affected workers, local communities or cultural property. Has it created liabilities for the company?	No 🗖	
Have there been any changes to environment, social, labor or health and	Yes 🗅	If yes, please describe:
safety laws or regulations that have materially affected the company?	No 🗖	
How many inspections did you receive from the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of
How many inspections did you receive from the health and safety authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of
How many inspections did you receive 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	Yes 🛛	If yes, please describe, including status of implementing corrective a
plans?	No 🗆	
Has the Company engaged any contractors for project-related work in	Yes 🛛	If yes, please state for which types of work, and how the company h
the reporting period?	No 🗆	contractors with EBRD Performance Requirements and the Environ
Were any of the violations stated above the responsibility of contractors?	Yes 🛛	If yes, please provide details, including how the Company is ensurin
	No 🗖	implemented by the Contractor?

prevent reoccurrence:
re of any possible violations:
re of any violations found:
re of any violations found:
ve actions to address any violations found:
y has monitored the compliance of
ronmental and Social Action Plan:
uring that corrective actions are

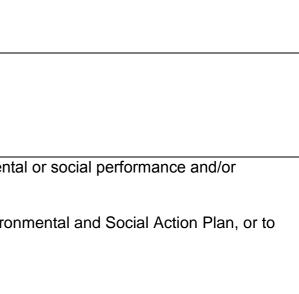
Have any operations been reduced, temporarily suspended or closed	Yes 🛛	If yes, please describe:
down due to environmental, health, safety or labor reasons?	No 🗖	

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.





Please provide the nam environmental manager:	e and contact	details for	your	
Parameter <sup>10</sup>	Value <sup>11</sup>	Unit	Compliance Status <sup>12</sup>	Com
Waste Water				
Total waste water generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
Air Emissions				
SO <sub>2</sub>				
NO <sub>X</sub>				
Particulates				
CO <sub>2</sub>				
CH <sub>4</sub>				
N <sub>2</sub> O				

 <sup>&</sup>lt;sup>9</sup> Please provide the results of any environmental monitoring carried out by the Company or its consultants. If you already have all the data requested available in another format, then this can used instead.
 <sup>10</sup> Not all parameters will necessarily apply. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.
 <sup>11</sup> Please ensure that the units of measurement are clearly stated.
 <sup>12</sup> Please report on compliance against the standards agreed with EBRD for this project (typically local, EU and/or World Bank Group)
 <sup>13</sup> In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

nments <sup>13</sup>	

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3. Environmental Monit	oring Data 9			
Please provide the name environmental manager:	e and contact	details for your		
Parameter <sup>10</sup>	Value <sup>11</sup>	Unit	Compliance Status <sup>12</sup>	Con
HFCs				
PFCs				
SF <sub>6</sub>				
[Other]				
Other Parameters				
Noise				
[Other]				
Solid Waste				
Please provide details of the type.	bes and amounts of s	solid wastes generate	ed by the project. Indicate where wastes are classified as hazardous. Indicate	the fir

nments <sup>13</sup>
inal re-use, recycle or disposal method for

4. Resource Usage and Product Output			
Parameter	Value	Measurement Unit	Comments <sup>14</sup>
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			


<sup>&</sup>lt;sup>14</sup> 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)

		lata'la t			
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 reperiod?	porting		consultation undertaken, and measures to mitigate the effects of redundancy:		
Are there any planned redu the workforce in the next ye			process:		
Were there any changes in representation at Company during the reporting period?	facilities	Yes 🖬 If	yes, please provide details, and summarize engagement with trade unions during reporting period:		
Were there any other worke representatives (e.g. in the a trade union)?		Yes 🖬 🥼	f yes, please provide details a	es, please provide details and summarize engagement with them during reporting period:	
Were there any changes in of Collective Agreements?	the status	Yes 🖬 If	f yes, please provide details:	es, please provide details:	
Have employees raised any grievances with the project reporting period?			es, please state how many, split by gender, summarize the issues raised by male and female staff and explain how the Company has dressed them:		
Have employees raised any complaints about harassme bullying during the reporting	ent or		ves, please state how many, split by gender, summarize the issues raised in grievances by male and female staff and explain how the Impany has addressed them		

Have there been any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?       Yes       If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:         Have there been any changes to the following policies or terms and conditions during the reporting period?       Yes       If yes, please give details, including of any new initiatives::         • Union recognition       • Collective Agreement       No       If yes, please give details, including of any new initiatives::         • Union recognition       • Collective Agreement, including sexual harassment, includi	Have there been 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
following policies or terms and conditions during the reporting period in any of the following areas:       No       I         • Union recognition       •       •         • Collective Agreement       •       •         • Non-discrimination and equal opportunity       •       •         • Equal pay for equal work       •       •         • Bullying and harassment, including sexual harassment, including sexual harassment       •         • Wages (wage level, normal and overtime)       •       •         • Overtime       •       •         • Working hours       •       •         • Flexible working / work-life       •       •	collective disputes related to labor and working conditions at the Company in		If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:
<ul> <li>Grievance mechanism for workers</li> <li>Health &amp; safety</li> </ul>	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		If yes, please give details, including of any new initiatives::

6. Occupational Health and Safety Data				
Please provide the name and contact details for your Health and Safety manager				
	Direct employees	Contracted workers		Direct
Number of man-hours worked this reporting period:			Number of Fatalities <sup>15</sup> :	
Budget spent on OHS in this period (total amount and currency):			Number of injuries:	
OHS training provided in this period in person-days:			Number of Lost Time Incidents (including vehicular) <sup>16</sup> :	
Number of lost workdays <sup>17</sup> resulting from incidents:			Number of cases of occupational disease:	
Number of sick days:				
Assident sources (folling, because loads, struck by	v abiant contract with an array	actures ate ).		

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:

employees	Contracted workers			
ccupational injury or illness (amount and				

 <sup>&</sup>lt;sup>15</sup> If you have not already done so, please provide a separate report detailing the circumstances of each fatality.
 <sup>16</sup> Incapacity to work for at least one full workday beyond the day on which the accident or illness occurred.
 <sup>17</sup> Lost workdays are the number of 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 members of the public or public organizations during the report period,
- information provided to members of the public and other stakeholders during the report period relating to 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 members of the public or civil society organizations during the reporting period? Please split by stakeholder group. 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, any economic losses resulting from the project?	1		No	If no, specify how many compensation payments are still percentage of recipients and payment amounts) and state whe
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?	Yes		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 paym
Has legal support been provided to all the 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 applicabl	No e 🗖	If no, specify how many claims are still outstanding and settling them.

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.

state what the expected timing is for

Have there been any new land acquisition-related complaints or grievances?	Yes 🗖	No	If yes, please state how many and summarize their content.
Has the company regularly reported to the affected communities on progress made in implementing the RAP?	Yes 🗖	No	If yes, please state how many meetings were held and how m

## New Land Acquisitions

If the company acquired any new land for the project during the reporting year, please provide documents to show closure of land acquisition transactions. the new land acquisition and describe mitigation measures, compensation, agreements reached, etc., and provide in tabular form a list of affected people an

Have any persons been physically displaced?	Yes 🗖	No 🗖	If yes, how many?
Have any persons been economically displaced?	Yes 🗖	No 🗖	If yes, how many?
Was it a government assisted resettlement?	Yes 🛛	No 🗖	
	I		

# 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:

many participants attended.
Please attach new/revised RAP covering ad status of compensation.

# 10. 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. 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);
- 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)
- 12. Law on roads ("Official Gazette RS" No. 41/2018)

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

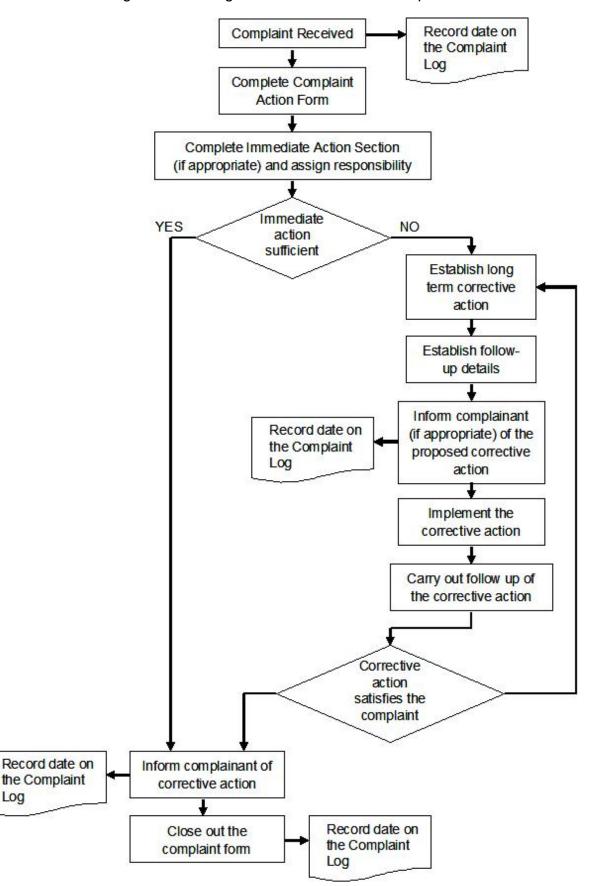
- Decree on establishing the List of Projects for which the Impact Assessment is mandatory and the List of projects for which the EIA can be requested (RS Official Gazette No 114/08);
- 2. Rulebook on the contents of requests for the necessity of Impact Assessment and on the contents of requests for specification of scope and contents of the EIA Study ("Official Gazette RS" no. 69/05);
- 3. Rulebook on the contents of the EIA Study ("Official Gazette RS" no. 69/05);
- 4. Rulebook on the procedure of public inspection, presentation and public consultation about the EIA Study ("Official Gazette RS" no. 69/05);
- Rulebook on 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);
- Decree on establishing class of water bodies ("Official Gazette FRS" No. 5/68);
- 8. Regulations on 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);

# 11. APPENDIX 4

# **GRIEVANCE MECHANISM AND FORM**



The algorithm of the grievance flow / Grievance procedure

Grievance reference	number							
Contact details	Name:							
	Address:							
	Tel:	Tel:						
	e-mail:	e-mail:						
How would you prefer be contacted? Please a box	•••	by phone	by e-mail					
Name and personal	information (JMBG	from identity card)						
Details of your grieva when, where and how What is your proposa	/ many times, as rel	evant	hom they occurred to,					
How to submit this form to the authorized persons	By post:							
	-	ease e-mail your	grievance, proposed he following e – mail					
Signature		C	Date					

# 12. APPENDIX 5

## **PUBLIC CONSULTATIONS**

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: Ruma interchange – Pecinci 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 12,990 km. The beginning of the section intended for rehabilitation is defined at 531 m before the node 0305 Ruma interchange, observed in the direction of chainage increase. The end of the section is defined as 708 m after the node 0306, Pecinci 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: Ruma interchange-Pecinci 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: Ruma interchange-Pecinci interchange on September 25<sup>th</sup>, 2018. The call was published on the PE Roads of Serbia's website (September 25<sup>th</sup>, 2018), as well as in "Politika" newspapers (September 27<sup>th</sup>, 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 Pecinci. 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;
- in the premises of a small conference room of the Municipal Assembly of Pecinci, Slobodana Bajica 5 Street, every working day from 8:00 AM to 3:00 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 the conference room of Cultural Center in Ruma, on October 11<sup>th</sup>, 2018, from 1:00 PM to 1:40 PM. There were no remarks referring to the presented Environmental Management Plan. There were no questions or concerns about the presented Plan.

## **REPORT ON PUBLIC CONSULTATION, RUMA OCTOBER 11<sup>th</sup>, 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: Ruma interchange – Pecinci interchange, in length of 12.990 km, has been prepared.

Environmental Management Plan was made publicly available on September 25<sup>th</sup>, 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 October 11<sup>th</sup>, 2018, when public consultations were held in Ruma.

Public consultations, held in Ruma on October 11<sup>th</sup>, 2018, were attended by 9 people<sup>18</sup>. The representatives of the Department of Urban Planning, Housing and Communal Affairs of the Municipality of Ruma, representatives of PUC "Plan" from

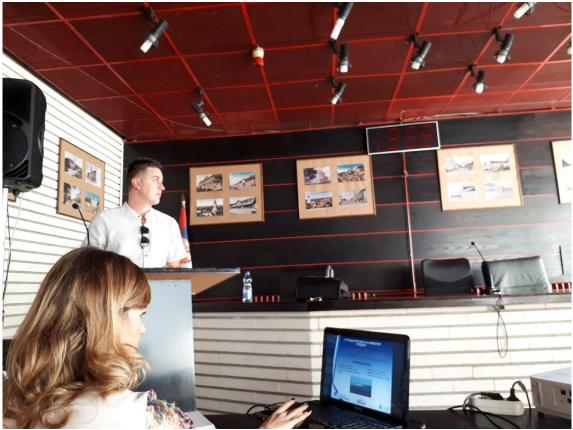
<sup>&</sup>lt;sup>18</sup> The list of participants is in Chapter 4.

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Ruma, representatives of PUC "Parking I infrastruktura", as well as 3 representatives of Project were among the participants.

No.	Name and Surname	Working organization-institution
1.	Miroslav Stojanovic	"MHM" Projekt
2.	Jovana Marinkovic	"MHM" Projekt
4.	Milka Pavlovic	PUC "Plan" Ruma
5.	Dragan Filipovic	PUC "Plan" Ruma
6.	Milena Veselinovic	PUC "Plan" Ruma
7.	Marija Zec	PUC "Plan" Ruma
8.	Vladislava Povic	Department of Urban Planning, Housing and Communal Affairs of the Municipality of Ruma
9.	Sanja Kokar Pejcic	Department of Urban Planning, Housing and Communal Affairs of the Municipality of Ruma
10.	Tanja Drobac	Department of Urban Planning, Housing and Communal Affairs of the Municipality of Ruma
11	Aleksandra Atanackovic	"MHM" Projekt
12	Vladislava Stamenovic	PUC "Parking I infrastruktura"

People who participated on public consultations were:



**Figure 1**. Public consultations held in the conference room of Cultural Center in Ruma on October 11<sup>th</sup>, 2018



*Figure 2*. Public consultations held in the conference room of Cultural Center in Ruma on October 11<sup>th</sup>, 2018



*Figure 3.* Public consultations held in the conference room of Cultural Center in Ruma on October 11<sup>th</sup>, 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: Ruma interchange – Pecinci interchange started at 1:00 PM. The main Plan was presented by the Designer. During the public consultations, there were no remarks or questions regarding the presented plan.

## 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.

#### LIST OF PARTICIPANTS

ПРОЈЕКАТ РЕХАБИЛИТАЦИЈЕ ПУТЕВА И УНАПРЕЂЕЊА БЕЗБЕДНОСТИ САОБРАЋАЈА ИЗРАДА ГЛАВНОГ ПРОЈЕКТА ПОЈАЧАНОГ ОДРЖАВАЊА ДРЖАВНОГ ПУТА ІА РЕДА БР. 3, ДЕОНИЦА: ПЕТЉА РУМА — ПЕТЉА ПЕЋИНЦИ, L=12.990KM



Присутни учесници на јавној консултацији Плана управљања заштитом животне средине

Редни број	Име и презиме	Радна организација - установа	Потпис
1.	NIROSLAV STORANOVIC	MHH - PROJEKT	det-5
2.	JOVANA MARINKOVI	1	Allaputhatat
3.	Tuathan 2400 as		
4.	Зелена Маленской		
5.	Calla Kerry Tieju	the CARDERSE SA SPEAKUSAN U PATTER	an Anof deput
6.	VERDISCONA POUL	V	Replicent Bene
7.		KOUE MHN- PRODEKT	Altrangel
8.		C TYP "PLON"	Clittent
9.	Mileno Veseliv	wie Jup " Plan " Rynng	Beccunstolh
10.	MADUJA BEZ	JUN " NAAH " PUMA	Mapyie Sey
11.	ADDITAH GRIMM	221722	Aghani 2
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			Место: Општина Рум
			Датум: 11.10.201

Figure 4. A List of People Present at Public Consultations Held in the Conference Hall of the Cultural Center in Ruma

## DOCUMENTATION

→ C A O Not secure   www	w.putevi-srbije.rs/index.php/en/road-re	ehabilitation-and-safety-project	Q.	x • e
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3 - Call for Public Consultations: EM	P for heavy maintenance of State Road IA			
<ul> <li>Call for Public Consultations: EM</li> <li>Environmental Management Plan</li> </ul>	P for heavy maintenance of State Road IA n – EMP for for heavy maintenance of State	Class No. 3 section: Ruma - Pecinci	)	
<ul> <li>Call for Public Consultations: EM</li> <li>Environmental Management Plan</li> <li>Call for Public Consultations: EM</li> </ul>	P for heavy maintenance of State Road IA n – EMP for for heavy maintenance of State P for heavy maintenance of State Road IB	Class No. 3 section: Ruma - Pecinci Road IA Class No. 3 section: Ruma - Pecinci		
<ul> <li>Call for Public Consultations: EM</li> <li>Environmental Management Plan</li> <li>Call for Public Consultations: EM</li> </ul>	P for heavy maintenance of State Road IA n – EMP for for heavy maintenance of State P for heavy maintenance of State Road IB	Class No. 3 section: Ruma - Pecinci Road IA Class No. 3 section: Ruma - Pecinci Class No. 35 section: Merosina – Prokuplje (Orljani		

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

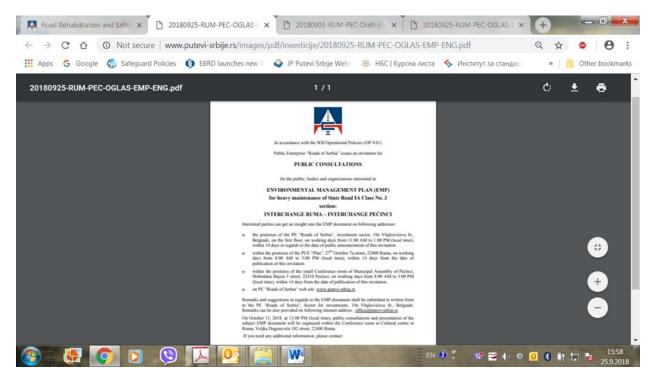


Figure 6. Announcement of Public Consultation Posted on the Website of PE "Roads of Serbia"

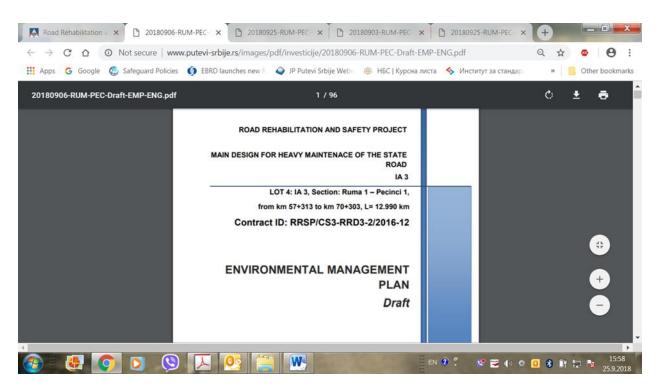


Figure 7. Environmental Management Plan Posted on the website of PE "Roads of Serbia"

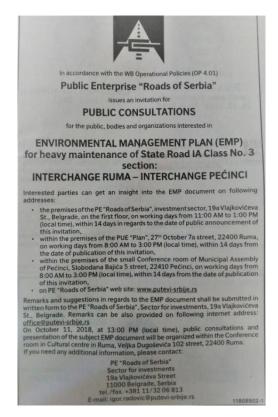
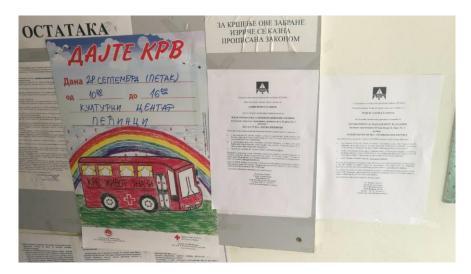


Figure 8. Announcement Published in "Politika" Newspapers



*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 Pecinci

# 13. APPENDIX 6

**CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS** 

ПОКРАЈИНСКИ ЗАВОА ЗА ЗАШТИТУ ПРИРОДЕ Србија = 21000 Пенн Саа = Ромничка 20А Тел: 021/4896-301 = фокс: 021/36-16-252 е-mail: ноvi.sad@pzzp.is = учучу.pzzp.rs



INSTITUTE FOR NATURE CONSERVATION OF VOJVODINA PROVINCE Serbia = 21000 Novi Sad = Radnicka 20A Phone: +381214896301 = Fax: +381216616252 e-mail: novi.sad@pzzp.rs = vww.pzzp.rs

Број: 03–2047/2 Датум:17.08.2017.

#### ЈП ПУТЕВИ СРБИЈЕ Булевар краља Александра 282 · Поштански фах 17 11059 БЕОГРАД

955-16205

Active ----Beotraa

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 Рума - петља Пећинци 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;
- 4. 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. 953-16205 од 04.08. 2017. за за израду техничке документације пројекта Појачаног одржавања пута IA реда бр.3 (аутопут Е-70), деоница петља Рума-петља Пећинци. Према Информационој бази Покрајинског завода за заштиту природе у еколошкој мрежи, 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 спровођењем 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 заштите природе, по коме се заштита природе реализује "... спровођењем мера заштите природе и предела; утврђивањем услова и мера заштите природе и заштићених природних добара и предела у просторним 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 03-2047/2, дана 17.08.2017. године.

Директор: ann др/Биљана Пањковић

Доставити:

- 1. Наслову
- 2. Архиви
- 3. Документацији

ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ Број: 412-07/17-3 Датум: 07.09.2017. године СРЕМСКА МИТРОВИЦА

ې د بې د مېږې کې ورو

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" из Београда, 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 Рума – петља Пећинци, могу се предузети на основу следећих услова:

-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.

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

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#### JП "ПУТЕВИ СРБИЈЕ" БЕОГРАД Булевар Краља Александра број 282 за Сектор за инвестиције

У прилогу дописа а у вези са Вашим захтевима број 953-16191 од 04.08.2017. године и 953-16204 од 04.08.2017. године, достављамо Вам:

-Услове 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 број 413-07/17-3 од 07.09.2017. године;

-Услове и мере техничке заштите за израду техничке документације пројекта појачаног одржавања деонице државног IA реда бр. 3 (аутопут Е-70), деоница деоница петља Рума – петља Пећинци број 412-07/17-3 од 07.09.2017. године.





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> БРОЈ: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



ЈАВНО ВОДОПРИВРЕДНО ПРЕДУЗЕЋЕ ВОДЕ ВОЈВОДИНЕ НОВИ САД 21000 Нови Сад, Булевар Михајла Пупина 25 тел: 021/4881-888 централа, 557-390 & факс: 021/557-353 ПИБ: 102094162 e-mail: office@vodevojvodine.co.yu, office@vodevojvodine.com

Број: I-323/ 💍 -18 Датум: НШ, НН

2 5 JUN 2018

#### МНМ-PROJEKT DOO ул. Јована Поповића бр. 40 21000 Нови Сад

Предмет:

Претходни услови за израду техничке документације пројекта Појачаног одржавања државног пута IA3, деоница: перља Рума 1 – Пећинци 1, од km 57+313 до km 70+303

Вашим Захтевом бр.11-230218/5 од 23.03.2018.године (наш број I-323/1 од 26.02.2018.године) и допуном захтева од 23.03.2018. године у име инвеститора ЈП "Путеви Србије" Бул.Краља Александра бр.282 Београд, матични број: 20132248, ПИБ: 104260456, тражили сте наше претходне услове за израду Главног пројекта појачаног одржавања државног пута IA3, деоница: перља Рума 1 – Пећинци 1, од km 57+313 до km 70+303.

#### Уз захтев и допуну захтева, достављена је следећа документација:

- Ситуациони план на копији плана и Орто-фото снимак предметне деонице,
- Пуномоћје број 953-1950 од 24.01.2018. године издато од ЈП,, Путеви Србије" Београд,
- Закључци са састанка број 325-службено од 27.09.2016. године, Министарство пољопривреде и заштите животне средине, Републичка дирекција за воде,
- Технички опис предвиђених радова.

Набројана документација је достављенаделом у аналогној а делом у дигиталној форми.

#### У поступку издавања посебних услова прибављена су следећа мишљења:

- Водопривредно друштво "Хидросрем" доо, Сремска Митровица, број. 2/42 од 04.05.2018. године
- Служба за заштиту вода од 13.06.2018. године, ЈВП Воде Војводине, Нови Сад.

Разматрањем поднетог захтева са прилозима, установили смо да се планирају радови на појачаном одржавању деонице која припада Сремском управном округу. Деоница Рума - Пећинци у дужини од 11.751 km (десна коловозна трака) припада државном путу АЗ реда бр. 1 (стара ознака пута М-1) ("Службени Гласник РС", бр. 93/2015), и представља део попречне саобраћајне везе кроз Срем, односно правац Коридора 10 који повезује јужни део Србије са граничним прелазом са Хрватском (Батровци).

Дужина деонице опредељене за појачано одржавање (интервенцију) износи 12,990 km.

У оквиру хидротехничких радова у зони објеката, није предвиђено проширење објеката као ни уређења водотокова, нити измена система одводњавања, већ само побољшања постојећег система у смислу враћања у функционално стање. Планираним грађевинским интервенцијама неће се утицати на измену система одводњавања тако да није предвиђена уградња сепаратора. Планиране мере се односе на евентуалне санације и поправке мањих физичких оштећења постојећих пропуста (уколико их има).

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Грађевинском интервенцијом биће побољшања носивост коловозне конструкције у оквиру постојеће ширине пута.

Предметна саобраћајница се укршта са следећим мелиорационим каналима: Канал бр.34, Румско Гранични 2, Румско Гранични 27-1, Румско Гранични 1, Канал поред пруге, Ј-1037 и Јарачком Јарчином. Карактеристике наведених канала дате су у тачки 2 ових Предходних услова.

При изради техничке документације из наслова треба уважити следеће услове:

 Техничку документацију урадити у складу са законским прописима и нормативима за ову врсту објеката. За потребе израде прикупити све потребне подлоге (урбанистичке, геодетске, геомеханичке, хидролошке,...), извршити одговарајуће анализе и прикупити остали неопходне услове надлежних органа.

Р.Б.	Назив Канала	Стационажа	Кота пројектованог дна канала	Кота терена лева и десна обала	Нагиб канала	Ширина дна канала	Кота велике воде	Примедба
		km	mnm	mnm		m	mnm	
1	Канал бр. 34	0+370 L=2m	89,70	90,88 90,92	1:1,5	0,80	90,50	Укрштање са каналом - низводни профил -обилазница Румска петља
2	Румско Гранични 2	2+100 L=1m	89,12	90,09 90,00	1:1,5	0,80	89,82	Укрштање са каналом - низводни профи/
3	Румско Гранични 27-1	0+280 L=1m	89,00	90,00 90,00	1:1,5	0,60	89,50	Укрштање са наналом низводни профил
4	Румско Гранични 1	2+475 L=2m	87,40	89,73 89,64	1:1,5	0,80	88,20	Укрштање са каналом низводни профил
5	Канал поред пруге	2+500	85,50	86,40 86,40	1:1,5	0,60	86,00	Надвожњак преко пруге Рума Шабац km60+750 ауто пута - низводни профил
6	J-1037	L=2m	81,75	83,70 83,70	1:1,5	0,80	83,04	Укрштање са каналом - низводни профил
7	Јарачка Јарчина	11+650	79,53	83,98 86,66	1:1,5	7,0	81,83	Укрштање са наналом - Мост преко канала -km65+040 ауто пута - низводни профил

2. Предметна деоница укршта се са следећим мелиорационим каналима:

Уважити дате карактеристике канала.

3. Забрањено је у мелиорационе канале и друге водотоке испуштати било какве воде осим условно чистих атмосферских вода и отпадних вода пречишћених до квалитета прописаних Уредбом о граничним вредностима емисије загађујућих материја у воде и роковиима за њихово достизање ("Сл. гласник РС", бр 67/11, 48/12 и 01/16) како би се обезбедило одржавање II класе у реципијенту и неби нарушио минимално добар еколошки потенцијал површинске воде за вештачка водна тела у складу са Уредбом о граничним вредностима загађујућих материја у површинским и

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подземним водама и седименту и роковима за њихово достизање ( "Сл. гласник РС", бр50/12).

- У појасу радно-инспекционе стазе у ширини од 5,0м у грађевинском реону, односно 10,0 м у ванграђевинском реону, од ивице канала на левој и десној обали није дозвољена изградња надземних објеката, а подземни се морају укопати минимум 1,0м и заштитити од оптерећења тешке грађевинске механизације која ради на одржавању каналске мреже.
- 5. На ситуационом плану, у одговарајућој размери приказати решење одводњавања пута са свим потребним елементима.
- 6. У случају улива атмосферске канализације у мелиоративни канал, на месту улива атмосферске канализације, предвидети осигурање косина и дна канала од ерозије, облагањем косине и дна канала каменим или бетонским елементима и то 3.00 m узводно и низводно од улива.
- На месту улива предвидети уливну грађевину која не сме да задире у протицајни профил канала.
- 8. Након завршених радова извршити чишћење профила канала и околног терена од заосталог грађевинског материјала или земље из ископа, а сав преостали материјал и опрема уклони из те зоне.
- Предвидети таква решења којима се неће нарушавати функционалност и стабилност водних објеката, нити ће се водни објекти оштећивати.
- 10. Инвеститор је дужан да о свом трошку отклони сва евентуана оштећења настала за време извођења радова тако и у току експлоатације.
- 11. За све друге активности које ће се евентуално обављати у оквиру предметног простора, мора се предвидети адекватно техничко решење, у циљу спречавања загађења земљишта, површинских и подземних вода.
- 12. Обавеза инвеститора је да благовремено, писаним путем обавести ЈВП,,Воде Војводине" Нови Сад , о почетку извођења радова, ради праћења утицаја радова са становишта њиховог утицаја на водне објекта, водни режим и квалитет подземних и површинских вода.

Прилог: Прегледна ситуација локалитета са приказаном каналск

**ДИРЕКТО** 

вко Врниић, дипл. инж

МНМ PROJEKT DOD, Нови Сад, Јозана Поповића бр.40,

- впд "Хидросрем" доо, Сремска Митровица ,Променада 13, ( бр. 2/42 од 04.05.2018. год. ) 3
- Сектору за економске и финансијске послове, (76/035/1806 20 20 секо Техничком сектору,
  - Архиви. 5.



