

**ROAD REHABILITATION AND SAFETY PROJECT
MAIN DESIGN FOR HEAVY MAINTENANCE OF THE
STATE ROAD IA1**

**LOT 1: IA1, road section: interchange Razanj-
interchange Paracin, from km 360+249 to km
385+067, L=24.781km**

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

**ENVIRONMENTAL MANAGEMENT
PLAN
Final**

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CONTENT

ABBREVIATIONS	1
INTRODUCTION	2
SUMMARY	3
1. PROJECT DESCRIPTION	10
2. THE ASSESSMENT OF THE BASIC CONDITIONS OF THE ROUTE DURING THE RESEARCH	15
3. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK	28
4. SUMMARY OF ENVIRONMENTAL IMPACTS	30
5. ENVIRONMENTAL MANAGEMENT PLAN	33
A. MITIGATION PLAN	33
B. MONITORING PLAN	40
C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS	40
6. STAKEHOLDER ENGAGEMENT – INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION	44
7. REFERENCES	45
APPENDIX 1	46
MITIGATION PLAN	46
APPENDIX 2	55
MONITORING PLAN	55
APPENDIX 3	71
LEGISLATION	71
APPENDIX 4	74
THE GRIEVANCE MECHANISM AND FORM	74
APPENDIX 5	77
PUBLIC CONSULTATIONS	77
APPENDIX 6	87
CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS	87

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
INC	Institute for Nature Conservation of the Republic of Serbia
IPCM	Institute for Protection of Cultural Monuments of the Republic of Serbia
MoEP	Ministry of Environmental Protection
MoCTI	Ministry of Construction, Transport and Infrastructure
PERS	Public Enterprise "Roads of Serbia"
PSC	Project Supervision Consultant
RE	Resident Engineer
RRSP	Road Rehabilitation and Safety Project
SE	Site Engineer
SLMP	Safety Labour Management Plan
SSIP	Site Specific Implementation Plan
WB	The World Bank Group
WMP	Waste Management Plan
OP	Operational policy
PIT	Project Implementation Team

INTRODUCTION

The Environmental Management Plan has been prepared for the proposed Design for heavy road maintenance of the State Road IA class, No. 1 road section: Interchange Razanj – Interchange Paracin in order to ensure application of good environmental practice and document compliance with the requirements of the International Financing Institutions (IFI's) which will finance this Project.

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

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

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

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

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

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

SUMMARY

Project Description

Road Rehabilitation and Safety Project (RRSP) is the project in which IFIs (World Bank, European Investment Bank and European Bank for Reconstruction and Development) provide support to the Government of the Republic of Serbia in implementing the National Program For Rehabilitation Of The State Road Network. This project represents the realization of the Government's program for the period from 2014 to 2019. The main goal of the project is improving the conditions and traffic safety on the state road IA class, No.1 section: Interchange Razanj – Interchange Paracin.

Location Description

The subject section belongs to the Nisava Administrative District. Section Razanj - Paracin in the length of 24.781 km (the left carriageway lane) belongs to the state road IA number 1 (previously marked as M-1) ("Official Gazette of RS", No. 93/2015) and represents part of a lengthy transportation route through the north and south of Serbia, which is, in the direction of Corridor 10 that connects the northern part of the country's border with Hungary (border crossing Horgos) and the southern part of Serbia, i.e. with the country border with Macedonia (border crossing Presevo). Also, the subject section is a part of the Project envisaged for heavy maintenance within the Third Year of its implementation.

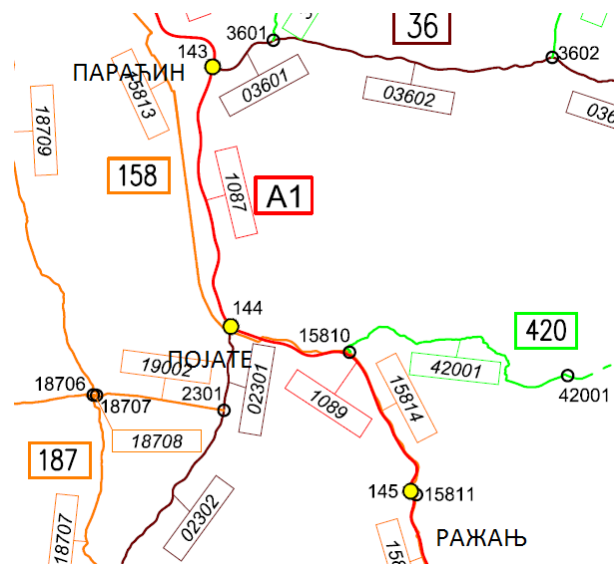


Figure 1. The location of the subject section according to a map of the reference system of the state roads in 2015

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

Rehabilitation Works Description

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

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

In accordance with the Terms of Reference and the site visits, the project 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 project does not anticipate river beds regulation. At no time 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 Institute for Nature Conservation of the Republic of Serbia, Institute for Protection of Cultural Monuments of Kragujevac and 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.

Environmental impact assessment is not required for road rehabilitation projects, except in cases where the section is or passes through protected natural or cultural area.

On the basis of a decision issued by the Ministry of Environmental Protection (No. 011-00-00180/2018-03 from March 12th, 2018), the subject section is not located within the protected area for which the environmental protection procedure was conducted or initiated. Therefore, it **does not require making the Environmental Impact Assessment** (Appendix 6).

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

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

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

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

Baseline Conditions Assessed during Route Survey

There are 58 culverts on the section (11 slab, 37 pipe, 3 arched, 6 combined, 1 box culvert for pedestrains), as well as a certain number of abutment walls (different types and different dimensions). Also, it is recorded that the route is intersected by registered watercourses and roads of lower class.

This section is intersected by watercourses at the following locations:

- The Bridge over Bacijski stream at km 362+529
- The Bridge over Krezbijski stream at km 367+753
- The Bridge over stream and road at km 373+165
- The Bridge over the Jovanovacka River at km 375+897
- The Bridge over stream and road at km 377+926

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

- The Bridge over the road at km 360+549
- Overpass across the road at km 363+430
- Overpass at the intersection Pojate at km 373+373
- The Bridge over the road 158E at km 373+850
- Bracin Viaduct over landslide at km 379+199
- Overpass across the road at km 382+689
- Overpass across the country road at km (Perilovac) at km 383+790

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

Ditches (intake pipes) extend along the left side of the section of the road (in the direction of the chainage growth Paraćin - Ražanj). Concerning the longest part of the carriageway, ditches are neatly maintained and covered with grass.

While visiting the site, concrete canals on the left side of the carriageway were indicated:

- Canal with a semi-circular cross-section, 0.8 m in width, 20cm in depth,
- Canal with a trapeze cross-section, $b=30$ cm, $B=80-100$ cm and $h=20$ cm

The main role of these canals is to lead runoff from the carriageway to the closest culvert. Generally, canals are in a satisfactory state.

Regarding the cultural heritage and protected resources on the subject section, according to the data from the conditions of the Institute for Protection of Cultural Monuments of Kragujevac (No. 098-02/1 from September 22nd, 2017), there is archaeological resource Slatina, the Turkish fountain in Drenovac.

The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance with the requirements stated in the Decision. The Contractor is supposed to inform the competent institution about the date for the commencement of works.

Along the route there is one petrol station (*Aralis*) with a large parking lot for heavy goods vehicles and several service facilities (motel, restaurant, shop...). All these facilities are located on the approximate chainage of km 372 + 740.00, just in front of Pojate intersection (Figure 2).



Figure 2. Petrol station "Aralis" at km 372+740

Current traffic load (AADT) for the road section 1087 is 18099 vehicles per day, while for the section 1089 is 15875 vehicles per day (traffic counter ABS 1295/96) in 2017.¹

¹ <http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobračajnog-opterećenja-na-državnim-putevima-IA-reda.pdf>

Summary of Environmental Impacts

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

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

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

Environmental Management Plan

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

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

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

Mitigation Plan

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 (Institute for Nature Conservation of the Republic of Serbia, Republic Institute for the Protection of Cultural Monuments of Belgrade and Institute for Protection of Cultural

Monuments of Kragujevac), laws and contract documentation, approximate location, time scope and responsibilities for its implementation and supervision.

Monitoring Plan

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

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

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

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

Stakeholder Engagement –Information Disclosure, Consultation and Participation of Public

As requested by IFI's safeguard policy, public consultations will be held in the EMP preparation. The EMP and other project-related information will be disclosed to the public and made available to the local community. A detailed report on the public consultation process will be shown in Appendix 5 of this document and it will contain a list of identified participants. Consultation with users will be made during the road rehabilitation stage, while all records of environmental and social issues, complaints received during consultation, site visits, and informal discussions, formal reports etc. will be monitored, recorded and kept in PERS Project office.

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

- Spatial plan of the municipality of Paracin, in coordination with the Spatial Plan of the Municipality of Paracin with the provisions of the Law on Planning and Construction („Official Gazette of RS“, No.72/09)

- The amendment to the General Regulation Plan of Paracin
- Detailed Regulation Plan for the location Karadjordjevo brdo in Paracin
- Detailed Regulation Plan of „M-5“ in Paracin
- Detailed Regulation Plan of Carica Milica- North
- Detailed Regulation Plan for the route along Carica Milica Street- South in Paracin
- Detailed Regulation Plan of the suburb Tekija in Paracin
- Detailed Regulation Plan for the route along the northern part of the railway Paracin- Popovac in Paracin
- Detailed Regulation Plan of an archaeological site Drenovac
- Detailed Regulation Plan of the tourist recreation complex Rubin 1 on the highway Belgrade-Nis
- Spatial plan of the municipality of Razanj („Official Gazette of the municipality of Razanj“, No. 4/2012)
- General Regulation Plan of Razanj („Official Gazette of the municipality of Razanj“, No. 11/2012)
- The first amendment to the General Regulation Plan of Razanj („Official Gazette of the municipality of Razanj“, No. 2/2017)

The Summary of Public Inspection

During the preparation of EMP and before the commencement of works, the public hearings were organized in accordance to the requirements of the Security policy of Security Council. The EMP and other information connected to the project were presented to public on November 22nd, 2018 in Paracin. The entire documentation was delivered to the municipalities, published on the website, placed on the PERS internet presentation and published in the media.

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

The consultations with the users 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 party who lodged the grievance about the results. This is to be applied to all types of grievances. The grievance form is in Appendix 4, and the printed versions will be available in the local community centers.

1. PROJECT DESCRIPTION

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

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

The institution in charge of realization of the Project is Public Enterprise “Roads of Serbia” (hereinafter called PERS). Within PERS, a Project implementation team (PIT) was formed, which should conduct all the necessary activities for successfully management and completion of the Project, with the help of other professional departments in the company and in cooperation with the other interested institutions of the Government of the Republic of Serbia.

The main goal of the project is increasing traffic safety on the state road IA1, section: Interchange Razanj – Interchange Paracin.

Section description

The subject section belongs to the Nisava Administrative District. Section Razanj-Paracin in the length of 24.781 km (the left carriageway lane) belongs to the state road IA number 1 (previously marked as M-1) ("Official Gazette of RS", No. 93/2015) and represents part of a lengthy transportation route through the north and south of Serbia, that is, in the direction of Corridor 10, which connects the northern part of the country's border with Hungary (border crossing Horgos) and the southern part of Serbia, i.e. with the country border with Macedonia (border crossing Presevo). Also, the subject section is a part of the Project foreseen 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.

Table 1. The traffic sections and nodes according to the Reference System

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		1090	145	144	Razanaj	Pojate	12.690 (**)
2		1088	144	143	Pojate	Paracin	12.091 (**)
Total:							24.781 (**24.781)

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

** Length of the subsection which should be repaired

According to the categorization that entered into force in November 13th, 2015 ("Official Gazette" of RS, No. 93/2015) the subject section belongs to the state road of IA class No.1 (country's border with Hungary (border crossing Horgos) - Novi Sad - Belgrade- Nis- Vranje- country's border with Macedonia (border crossing Presevo)).

Figure 3. represents the position of the subject section within the Road reference system of the Republic of Serbia in 2015.

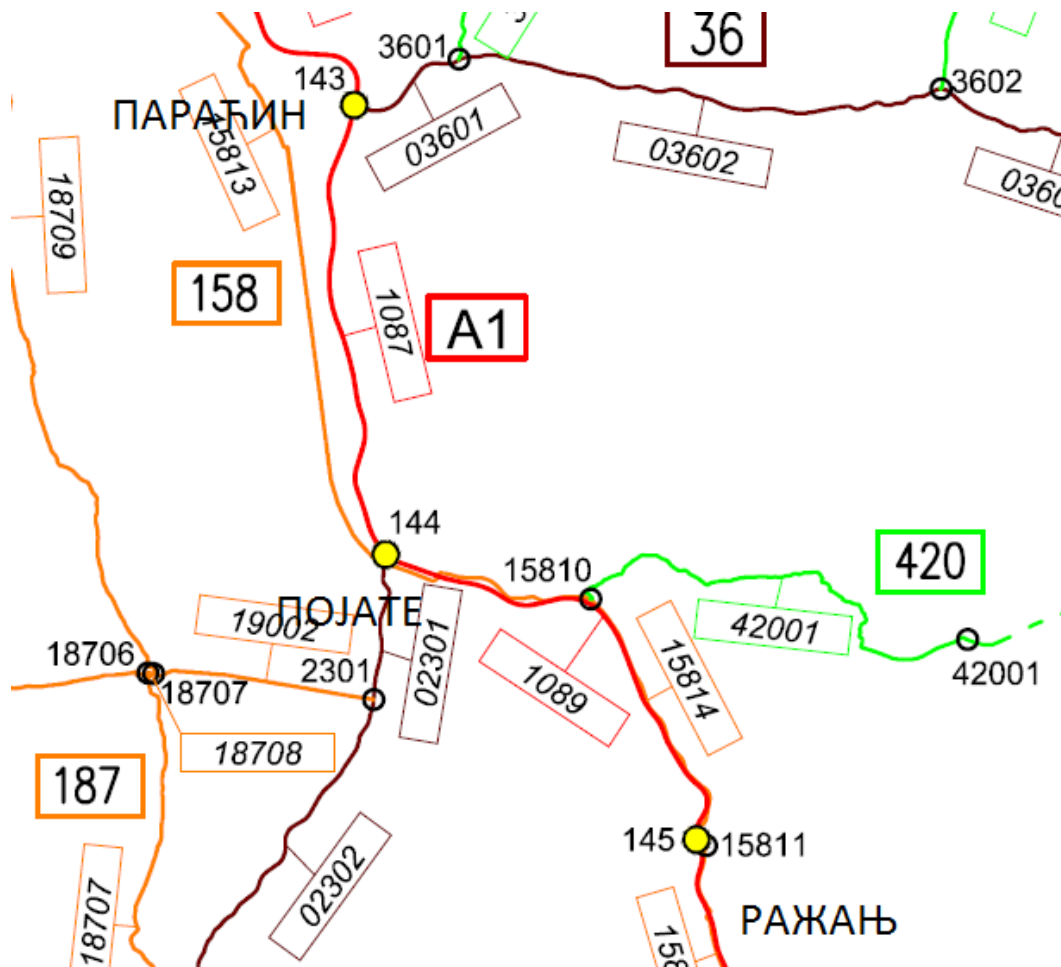


Figure 3. The location of the subject section according to the Road reference system in 2015

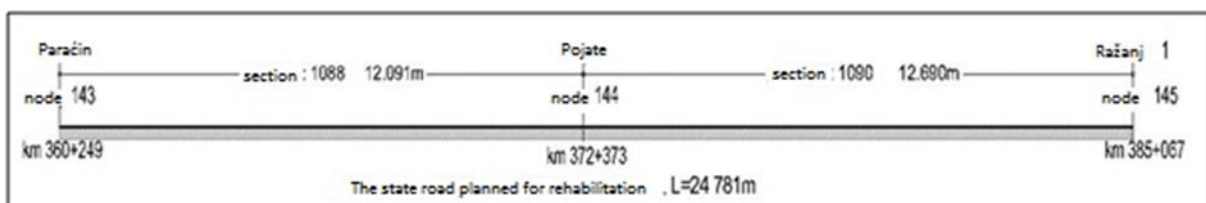


Figure 4. The length of the road section intended for rehabilitation (heavy maintenance)

Figure 4. represents 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 **does not**

foresee resettlement, which is defined by OP 4.12, nor the long-term disturbance of natural surrounding or damages to the environment, human settlements and activities.

The beginning of the section is at the node 0145, intersection of Razanj (Figure 5), and the end of the section is defined at the node 0143, intersection of Paracin 0143 (Figure 6). The subject of the Project is the left carriageway lane of the highway of the section regarding the state road IA 1 at the defined length.



Figure 5. The beginning of the section



Figure 6. The end of the section

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

There are not settlements on the subject section.

Rehabilitation Works Description

Based on the technical documentation of enhanced maintenance of the section Interchange Paracin - Interchange Razanj, L = 24.781 km, widening of the road is not foreseen, but the existing width of the carriageway is maintained. The

construction intervention will improve the load capacity of the carriageway structure within the existing road width. Also, regarding the part of facilities on the route (culverts, bridges, and overpasses) included in the rehabilitation, the widening or regulation of watercourses in the zone of facilities is not planned. However, the interventions are planned in order to return them into original functional state.

Table 2. The existing traffic half-profile

Section	Traffic lanes			Edge strip (m)	Total carriageway width (m)
	Overtaking lane (m)	Driving lane (m)	Emergency lane (m)		
Interchange Paracin - Interchange Razanj	3.75	3.75	2.5	0.5	11

The terrain characteristic on the location regarding the section belongs to both plain and hilly type. Along the route, the types of typical cross-section profiles are often replaced, cut, cut and fill and slope.

Regarding the low road slope, water from the carriageway is led through the road shoulders, to the open earthen canals, canals with concrete bottom, drain flumes or canals with less frequent free flow down the slope. On some parts of the section where the main, left half-profile of carriageway is in cut, water from carriageway is led through gutters and further through the drainage system, the closed sewage system. Concerning the hilly part of the section, where the half-profile of carriageway is on a high slope, the drainage system is changing frequently. On these parts of the route, water is led across the curbs along the carriageway, through open earth canals, concrete canals, concrete drain flumes letting water slowly along the slope through the flume, etc. Along the entire section, there is a drain flume in the edge strip, and collected atmospheric water is discharged from the drain flume through the manhole into the drainage pipes beneath drain flumes, from where it is finally discharged into natural recipients and culverts.

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

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

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

Traffic regulation in the zone of works will be performed:

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

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

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

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

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

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

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



Figure 7. Typical parts of the subject section

There are 58 culverts on the section (11 slab, 37 pipe, 3 arched, 6 combined, 1 box culvert for pedestrians), as well as a certain number of abutment walls (different types and different dimensions). Also, it is recorded that the route is intersected by registered watercourses and roads of lower class.

This section is intersected by watercourses at the following locations:

- The Bridge over Bacijski stream at km 362+529
- The Bridge over Krezbijski stream at km 367+753
- The Bridge over stream and road at km 373+165
- The Bridge over Jovanovacka River at km 375+897
- The Bridge over stream and road at km 377+926

In general, most bridges have a problem due to unresolved drainage system. The usual concept of drainage system regarding bridges is based on water flowing along the curb. Implementation of the outflow from the carriageway is not regulated by facilities foreseen for this purpose. Therefore, there is an intensive deterioration of the bridge construction. Concrete degradation, damaged blankets on concrete, denudation of reinforcement are denoted...

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

- The Bridge over the road at km 360+549
- Overpass across the road at km 363+430
- Overpass at the intersection Pojate at km 373+373
- The Bridge over the road 158E at km 373+850
- Bracin Viaduct over landslide at km 379+199
- Overpass across the road at km 382+689
- Overpass across the country road at km (Perilovac) at km 383+790

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

Ditches (intake pipes) extend along the left side of the section of the road (in the direction of the growth of chainage for Paracin- Razanj). Concerning the longest part of the carriageway, ditches are neatly maintained and covered with grass.



Figure 8. Ditches on the subject section

While visiting the site, concrete canals on the left side of the carriageway were indicated.

- Canal with a semi-circular cross-section, 0.8 m in width, 20cm in depth,
- Canal with a trapeze cross-section, $b=30$ cm, $B=80-100$ cm and $h=20$ cm



Figure 9. Concrete canals on the subject section

Concrete prefabricated elements are in a good condition without any major cracks or fractured concrete pieces, which can occur mostly in winter, due to periodic defrosting and freezing cycles. Due to these conditions, concrete cracking and damages occur. Concerning some chainages, there is a phenomenon of intensified vegetation between junctions of prefabricated elements, but they are mostly negligible, i.e. do not affect the efficient drainage of water. The main role of these canals is to lead collected runoff to the closest culvert.

Gutters represent the main element of the drainage system on the route regarding the left side of the carriageway on the subject section (in the direction of growth of chainage).

Gutters along the subject section are made of concrete. The evacuation of collected runoff from the carriageway is carried out mainly through manholes with a slatted grid (concrete or steel) and inlet culverts. From that place, runoff is transported through culverts to the right side of the route, and then by canals, gullies or direct discharge into the final recipients.



Figure 10. Gutters on the subject section

According to the data from the conditions of the Institute for the Protection of Cultural Monuments of Kragujevac (No. 098-02/1 from September 22nd, 2017) regarding the monuments of culture and protected resources on the section, there is an archaeological site Slatina, the Turkish fountain- Drenovac.

The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance with the requirements stated in the Decision. The Contractor is supposed to inform the competent institution about the date for the commencement of works.

Along the route there is one petrol station (*Aralis*) with a large parking lot for heavy goods vehicles and several service facilities (motel, restaurant, shop...). All these facilities are located on the approximate chainage of km 372 + 740.00, just in front of Pojate intersection (Figure 2).

Settlements

The municipality of Paracin is located in the central part of Serbia and belongs to Pomoravlje District. Its territory extends from Kucaj Mountains, in the east, towards Velika Morava, in the west, and is intersected by the Crnica and Grza rivers. It occupies an area of 541.7 km². The Municipality, besides Paracin, consists of 34 settlements, such as: Bosnjane, Buljane, Busilovac, Glavica, Golubovac, Gornja Mutnica, Gornje Vidovo, Davidovac, Donja Mutnica, Donje Vidovo, Drenovac, Zabrega, Izvor, Klacevica, Krezbinac, Lebina, Lesje, Mirilovac, Plana, Popovac, Potocac, Ratare, Rasevica, Svojnovo, Sikirica, Sinji Vir, Sisevac, Striza, Stubica, Tekija, Tresnjevica, Cepura, Savac and Saludovac. The city center, the urban settlement of Paracin, lies at latitude 43°87" N and longitude 21°41' E, at the altitude of 130 meters. It is located at the crossroads of several important roads, 156 km away from Belgrade, along the Corridor 10. The international railway, which was built around 1880, passes through a city that is 80 km away from Nis and 500 km far from the Adriatic Sea.

The municipality of Razanj is located in southeastern Serbia and belongs to the Nisava district. It covers an area of 289 km² and borders with the municipalities of Aleksinac, Sokobanja, Krusevac, Paracin, Cicevac and Boljevac. Mountain Bukovik is located in the northeast and fold Mecka is in the north of Razanj. This municipality is at the intersection of Velika and Juzna Morava and Carpathian and Balkan part of Serbia. It consists of 23 settlements: Braljina, Varos, Vitosevac, Grabovo, Lipovac, Madjere, Maletina, Macija, Novi Bracin, Pardik, Podgorac, Pretrkovac, Poslon, Praskovce, Razanj, Rujiste, Skorica, Smilovac, Stari Bracin, Cerovo, Crni Kao, Cubura and Setk. The center is at latitude 43°40 'N and longitude 21° 32' E, at an altitude of 338 m. There are three road directions through the municipality of Razanj and they connect it with neighboring municipalities and Belgrade-Nis highway. To the west of Razanj, regarding Belgrade-Nis railway, there are railway stations Djunis and Braljin, which are 10 km away from the settlement. Razanj is 55 km away from Nis.

The subject section goes through the following cadastral municipalities::

- CM Glavica
- CM Tekija
- CM Lebina
- CM Ratare
- CM Krezbinac
- CM Drenovac
- CM Sikirica
- CM Pojate
- CM Bracin
- CM Plocnik
- CM Setka
- CM Madjere
- CM Razanj

The subject section does not pass through populated areas. There are following populated places in the immediate vicinity of the route:

- Paracin
- Krezbinac
- Drenovac
- Pojate
- Novi Bracin
- Razanj

Natural Resources and Cultural Heritage

According to the data from the conditions of the Institute for the Protection of Cultural Monuments of Kragujevac (No. 098-02/1 from September 22nd, 2017) regarding the monuments of culture and protected resources on the section, there is an archaeological site Slatina, Turkish fountain- Drenovac.

The site is located on the left side of Belgrade-Nis highway, on a slight slope that descends to the Moravian terrace (flat land). The precise location of the site is neither precisely defined by the conditions of the competent institution, nor a general map of the site is provided.



Figure 11. An archaeological site of Drenovac

The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance with the requirements stated in the Decision. The Contractor is supposed to inform the competent institution about the date for the commencement of works.

Institute for Nature Conservation of Serbia (03 No. 020-2000/3 dated from September 5th, 2017, amendments to decision 03 No. 020-2000/5 from July 17th,

2018) points out that the subject section is neither located within the protected area, for which the protection procedure has been performed or initiated, nor it could be found in the scope of ecological network or in the area of registered natural resources.

The rehabilitation works are allowed to be done. However, they should be completed in compliance with the requirements stated in the Decision. The Contractor is supposed to inform the competent institution about the date for the commencement of works

Watercourses

This section is intersected by watercourses at the following locations:

- The Bridge over Bacijski stream at km 362+529 (Figure 12)
- The Bridge over Krezbijski stream at km 367+753 (Figure 13)
- The Bridge over stream and road at km 373+165 (Figure 14)
- The Bridge over Jovanovacka River at km 375+897 (Figure 15)
- The Bridge over stream and road at km 377+926 (Figure 16)



Figure 12. The Bridge over Bacijski stream at km 362+529



Figure 13. The Bridge over Krezbijski stream at km 367+753



Figure 14. The Bridge over an unregulated stream and road of lower class at km 373+165



Figure 15. The Bridge over Jovanovacka River at km 375+897



Figure 16. The Bridge over stream and road at km 377+926

By amending originally issued conditions, the Institute for Nature Conservation of Serbia (No. 020-2000 / 5 dated from July 17th, 2018 (correction of the technical error)) defines the following: "For water that is mixed with oil and other petroleum products, generated by washing away from the carriageway, certain intake pipes and separators of fat and oil should be foreseen, if the Environmental Management Plan establishes/assesses the limit values defined in the Regulation on Emission Limit Values of Pollutants in Water and deadlines for their achievement ("Official Gazette of the Republic of Serbia" No. 67 / 2011, 48/2012 and 1/2016) and Regulation on

emission limit values of polluting substances in surface and groundwaters and deadlines for their achievement (Official Gazette of RS, No. 50/2012)." (Appendix 6).

Since the Laws of the Republic of Serbia do not consider the functional relationship between the traffic load size (ADDT) as an emitter of pollution and the amount of pollutants that traffic produces, the Designer found out the data where it is recommended to collect and purify runoff from the carriageway.

European regulations lead directly to the ADDT and type and characteristics of the soil. Therefore, based on that information, it is defined whether it is necessary to collect and purify the runoff from the carriageway on the observed section. According to the European experience, traffic load of 6,000 vehicles per day is adopted as the boundary of which is not necessary to purify runoff from the carriageway before letting it to the recipient in terms of emphasized porosity of soil. In areas with lower porosity of soil, traffic load of 12,000 vehicles per day is adopted as the boundary of which is not necessary to purify runoff from the carriageway before discharging it to the recipient.

Considering the fact that current traffic load (AADT) for the section 1087 is 18099 vehicles per day, while the ADDT for the section 1089 is 15875 vehicles per day (traffic counter ABS 1295/96) in 2017², the Designer thinks that collected runoff from the carriageway should be purified in the zone of registered watercourses (50-100 m in front and behind the registered watercourse).

It is important to point out that rehabilitation of bridges over watercourses will not jeopardize the riverbed (will not reduce the flowrate during the works). Since the rehabilitation works are concerned, the regulation of the river bed will not be carried out. The project will provide a solution to make a passage from road shoulder to bridge, as well as drainage in front and behind the bridge.

Culverts

There are 58 culverts on the section (11 slab, 37 pipe, 3 arched, 6 combined, 1 box culvert for pedestrains).

No.	Chainage	Shape	Cross section	Material
1	361+767	L: Arched R: Pipe	N=V=1000mm D: Ø1000mm	L: Concrete pipe R: Concrete
2	362+212	Pipe	Ø1000mm	Concrete pipe
3	362+288	Pipe	Ø1000mm	Concrete pipe
4	362+840	Pipe	Ø1000mm	Concrete pipe
5	363+503	Pipe	Ø1000mm	Concrete pipe
6	363+822	Slab	N=2400mm V=4000mm	Concrete
7	364+101	Pipe	Ø1000mm	Concrete pipe

² <http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobračajnog-opterećenja-na-državnim-putevima-IA-reda.pdf>

8	364+341	Pipe	Ø1000mm	Concrete pipe
9	364+692	Slab	N=3000mm V=4000mm	Concrete
10	364+859	Slab	D: H=1800mm V=1000mm L: H=1000mm	Concrete
11	365+180	Pipe	Ø1000mm	Concrete pipe
12	365+431	Pipe	Ø1000mm	Concrete pipe
13	365+735	Pipe	Ø1000mm	Concrete pipe
14	366+070	Slab	V=4000mm N=3300mm	Concrete
15	366+138	Pipe	Ø1000mm	Concrete pipe
16	366+555	L: Arched R: Pipe	L: N=V=1000mm R: Ø1000mm	L: Concrete R: Concrete pipe
17	366+618	Pipe	Ø1000mm	Concrete pipe
18	367+049	Pipe	Ø1000mm	Concrete pipe
19	368+181	Pipe	Ø1000mm	Concrete pipe
20	368+452	L: Arched R: Pipe	L: N=V=1000mm R: Ø1000mm	L: Concrete R: Concrete pipe
21	368+660	L: Arched R: Pipe	L: N=V=1000mm R: Ø1000mm	L: Concrete R: Concrete pipe
22	369+145	Slab	V=4000mm N=3800mm	Concrete
23	369+165	Pipe	Ø1000mm	Concrete pipe
24	369+378	Pipe	Ø1000mm	Concrete pipe
25	369+515	Arched	N=1200mm V=1500mm	Concrete
26	369+848	Slab	L: N=3750mm V=5000mm D: N=4400mm	Concrete
27	370+057	Pipe	Ø1000mm	Concrete pipe
28	370+307	Pipe	Ø1000mm	Concrete pipe
29	370+577	Pipe	Ø1000mm	Concrete pipe
30	370+808	Slab	L: N=3650mm V=4000mm R: N=4400mm	Concrete
31	371+344	Slab	L: N=3150mm V=4000mm R: N=4200mm	Concrete
32	371+675	Pipe	Ø1000mm	Concrete pipe
33	371+992	Slab	L: N=3700mm V=4000mm R: H=5000mm	Concrete
34	372+139	Pipe	Ø1000mm	Concrete pipe
35	372+707	Pipe	Ø1000mm	Concrete pipe
36	372+780	Box culvert for pedestrains	N=2100mm V=3000mm	Concrete
37	372+960	Arched	N=1000mm	Concrete
38	373+319	L: Arched R: Pipe	L: N=1000mm R: Ø1000mm	L: Concrete R: Concrete pipe
39	373+650	Pipe	Ø1000mm	Concrete pipe
40	374+195	Slab	N=1800mm	Concrete

			V=2000mm	
41	374+455	Pipe	Ø1000mm	Concrete pipe
42	374+858	Pipe	Ø1000mm	Concrete pipe
43	375+005	Pipe	Ø1000mm	Concrete pipe
44	375+133	Pipe	Ø1000mm	Concrete pipe
45	375+280	Pipe	Ø1000mm	Concrete pipe
46	375+406	Pipe	Ø1000mm	Concrete pipe
47	376+025	Pipe	Ø1000mm	Concrete pipe
48	376+262	Pipe	Ø1000mm	Concrete pipe
49	376+491	Slab	N=1800mm V=3000mm	Concrete
50	376+645	Pipe	Ø1000mm	Concrete pipe
51	376+738	L: Arched R: Pipe	L: N=1000mm R: Ø1000mm	L: Concrete R: Concrete pipe
52	376+906	Pipe	Ø1800mm	Concrete pipe
53	376+980	Pipe	Ø1000mm	Concrete pipe
54	377+346	Pipe	Ø2000mm	Concrete pipe
55	381+319	Pipe	Ø1000mm	Concrete pipe
56	382+605	Pipe	Ø1000mm	Concrete pipe
57	382+730	Pipe	Ø1000mm	Concrete pipe
58	384+536	Arched	N=1800mm V=2000mm	Concrete



Figure 17. Arched culvert at km 361+767



Figure 18. Slab culvert at km 363+822



Figure 19. Pipe culvert at km 374+858



Figure 20. Box culvert for pedestrians

Generally speaking, most culverts are in good shape. Regarding parameters affecting the assessment of condition, in most cases, the assessment of condition is determined by the parameter "degradation of concrete", which is in a way increased in more than half of the cases. It is necessary to repair degraded concrete surfaces, as well as to repair cracks and fissures if they exist. It is necessary to clean the culverts.

A Grade-separated Intersection with Roads of Lower Class

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

- The Bridge over the road at km 360+549
- Overpass across the road at km 363+430
- Overpass at the intersection Pojate at km 373+373
- The Bridge over the road 158E at km 373+850 (Figure 21)
- Bracin Viaduct over landslide at km 379+199 (Figure 22)
- Overpass across the road at km 382+689
- Overpass across the country road at km (Perilovac) at km 383+790 (Figure 23)



Figure 21. The Bridge over the road 158E at km 373+850



Figure 22. Bracin Viaduct over landslide at km 379+199



Figure 23. Overpass across the country road at km (Perilovac) at km 383+790

Air

There are not current resources of air pollution within the observed section Interchange Razanj – Interchange Paracin. The data on the values of air pollution which were measured on the observed corridor were not available.

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

Noise

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

3. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Relevant Institutions

Ministry of Environmental Protection (MoEP) is the key institution in the Republic of Serbia responsible for formulation and implementation of environmental policy matters.

Other aspects of environmental protection connected to the projects of road rehabilitation were solved, among other with Institute for Nature Conservation of the Republic of Serbia, Institute for Protection of Cultural Monuments of Kragujevac and PE "Roads of Serbia" (PERS).

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

- Institute for Protection of Cultural Monuments of Kragujevac No. 098-02/1 dated from September 22nd, 2017
- Institute for Nature Conservation of the Republic of Serbia 03, No. 020-2000/3 dated from September 5th, 2017
- Correction of conditions provided by Institute for Nature Conservation of Serbia 03 No. 020-2000/5 from July 17th, 2018
- The Republic Institute for Protection of Cultural Monuments-Belgrade No. 2/1760 from August 24th, 2017
- Opinion of the Ministry of Environmental Protection, No. 011-00-00180/2018-03 dated from March 12th, 2018
- PWC Srbijavode, WMC Sava-Danube No. 1885/1 dated from March 16th, 2018

Existing Serbian legislation

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

The Procedure of Environmental Impact Assessment in the Republic of Serbia

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

about whether it is necessary to conduct the full procedure of Environmental Impact Assessment.

The request for giving the opinion about the need for making a study of environmental impact assessment with other accompanying documentation was given to the The Ministry of Environmental Protection (MoEP).

The decision states that projects of urgent maintenance, rehabilitation and removing road damages **are not** on the List of projects for which the EIA is required or for which the EIA can be required (“Official Gazette of RS” No. 114/08).

The approval was obtained from The Ministry of Environmental Protection (MoEP) (No. 011-00-00180/2018-03 dated from March 12th, 2018) that **it is not 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 must be applied to any works:

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

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

4. SUMMARY OF ENVIRONMENTAL IMPACTS

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

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

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

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

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

Overview of Key Impacts

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

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

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

Noise and Air Pollution in Residential Areas

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

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

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

Restrict work site construction for the period from 7 am to 5 pm, especially during the execution of works in the inhabited part of the section.

Possible Water Contamination

Water pollution may occur on the construction site, on the locations where the equipment, vehicles and machinery are washed and also on the parking lots. The contaminated water shall be filtered through a gravity oil-water separator. The Contractor shall use absorbent materials and remove the contaminated layer of soil, which is then transported to an adequate location in accordance with the Law on Water. The Contractor is obliged to wash the vehicles in the registered vehicle washing place. The possible soil and watercourses pollution will be avoided near construction sites in this way.

Potential Cumulative Impacts

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

Other impacts:

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

Disposal of waste in the territory of the Municipality of Razanj is done according to the Regional Waste Management Plan for the region that belongs to the municipality of Nis³.

³ http://www.sepa.gov.rs/download/UpravOtpad/RPUO_NiskiRegion.pdf

5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the section Interchange Razanj – Interchange Paracin 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. It is based on the types of environmental impact, their scope and duration. PERS manages the design, supervision and the contractor in the implementation of EMP.

A. MITIGATION PLAN

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

The Contractor's Management

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

The EMP is a part of the works program and the Contractor shall apply it through qualified and experienced staff that will be responsible for fulfilling the requests connected to the environmental protection from EMP. The Contractor and his subcontractors will work entirely in compliance with the laws of the Republic of Serbia, EU standards and the requests of the Creditor.

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

The Contractor is obliged to confirm that:

- The cost of EMP is included in the price;
- The Contractor has a qualified and experienced person in his team, who will be responsible for compliance of the EMP and the environment.
- The Contractor and external cooperation are in accordance with the laws of the Republic of Serbia, EU standards and the requirements of the Creditor.

Site Organization Plan

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

- Temporary locations for storing the construction and other material and equipment must be outside the coastal area of rivers 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 depositing muck and other waste in any form, as well as communal waste produced during the works; Waste disposal/dumping in the coastal area and the river bank or smaller temporary watercourses, as well as on the agricultural land shall be prohibited. In order to choose the location, use the Regional Waste Management Plan of Nis region⁴.
- After the completion of the works, all areas that have been degraded in any way by road rehabilitation works must be rehabilitated as soon as possible (levelling and resoiling degraded surfaces up to the level and condition in which this area was found before the commencement of works);
- During the works, the planned road sections and corridors around it must be followed, so that the earthworks and machinery do not affect the surrounding areas.
- During the works on the road that is located in the immediate vicinity of rivers or smaller temporary watercourses, the banks and littoral vegetation should be preserved as much as possible, in other words it is forbidden to destroy and the wild species and disturb their habitats.
- During the execution of works, it is forbidden to dispose and leave any kind of waste neither in the zone of rivers nor in any other watercourse.
- In the zone of crossing the road across the watercourse, where it is necessary to make arrangements in accordance with the design; the use of stones and other natural materials should be anticipated thus largely avoiding the use of concrete on the banks and river beds watercourses;
- Vehicle and machinery servicing on the road section shall be prohibited. In case of a road traffic accident resulting in oil or service fluids spill (removing the contaminated soil layer, and then levelling and humusing the surface), the road area must be cleaned, rehabilitated and reinstated;
- The works must be performed only during the day from 7 am to 5 pm on the parts where the section is located in a populated area to minimize the impact of noise from local construction machines and vehicles;
- The installation of protective barriers, pedestrian crossings and passageways should be foreseen on places where it is useful, especially at locations near the existing settlements;

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

- To maintain the maximum level of communal hygiene throughout the works along the entire route. To define locations for placement of containers for temporary disposal of waste within the roadside area (to locate containers for the temporary disposal of municipal waste on widen part of the road on the carriageway) and to ensure their emptying on a daily basis, at the end of the working day;
- The area for Contractor's facilities must be of the smallest possible size, to avoid unnecessary removal of vegetation;
- All Contractor's facilities should be fenced appropriately;
- Appropriate drainage of the construction site must be provided. Asphalt areas including locations used for parking lot, workshops and fuel storages must be drained toward the oil-water separator;
- Sanitary waste water and polluted water must be treated before water is discharged into the recipient (surface water flow system), in compliance with the Law on Waters (Official Gazette of RS, no. 30/2010, 93/2012 и 101/2016);
- Oil storage area should be at least 20 m away from the watercourse.
- If more than 5000 liters of oil is stored at the construction site, it should be placed in closed reservoirs on the concrete surface which can hold up to 110% of the reservoir capacity;
- All workshops must have oil and water separators;
- The Contractor must have trained staff, which is competent to handle oil and remove the consequences of an accidental spillage;
- Waste oil, oil filters and fuel must be stored on safe locations (in closed reservoirs on the concrete base). When the site is ready to be closed, all contaminated soil must be excavated and replaced with a new layer of soil;
- Removed material is to be stockpiled into appropriate sizes in accordance with the requirements for their management and re-usage;
- Limit the amount of excavation to reduce soil erosion. The Contractor should provide protection measures to prevent land erosion;
- Apply a methodology for the protection and conservation of soil from the areas susceptible to erosion, in order to reduce the runoff of atmospheric water carrying erosive material from the location;
- Excavations and machinery works must be avoided when the soil is damp;
- Upon the completion of works, machinery, construction material, containers and all other equipment must be removed in due time;
- At the end of works, it is obligatory to cultivate terrain in all endangered areas using appropriate flora and species that are biologically stable in given climatic conditions, more resistant to adverse effects (exhaust gases) and correlated with the surrounding area and purpose;

In order to choose the location, use the Regional Waste Management Plan of Nis region.⁵

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

Environmental Management Plan During the Heavy Maintenance

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

The contractor is required to have a qualified and experienced person in his\her team, who will be responsible for coherence between the works, the environment and the Environmental Management Plan. For this part of the work on the construction site, the presence of a responsible person is mandatory on a daily basis.

Public Enterprise "Roads of Serbia" will independently monitor the works, and if any irregularity is noticed, it will be transmitted to continuously present Supervision, and then to the Contractor.

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

- Site Management Plan. CEP should consist of the procedures for setting up and functioning of a construction site with a view in order to preserve the local community and natural resources;
- Constructin site Organization Plan and the details about proposed measures should indicate the environmental impact caused by their placement. Description and arrangement of areas, with maintenance equipment and oil and lubricant storage facilities, including the distance from water areas;
- Oil and Fuel Storage Management Plan. CEP should cover all the procedures for storing, transporting and using oil and fuel, refueling the facilities and machines, procedures for decreasing the risk of water and soil pollution. All kinds of oil and fuel should be stored in the secondary storages whose capacity is at least 110 % and each spill should be cleaned immediately. Fuel tanks will have the equipment for the treatment of spillage in order to have it cleaned as soon as possible in the case of spillage. All types of spills will be reported in compliance with the Plan which should be made by the Contractor. A short training of workers should be organized as a 'continuous training' as well as after each accident;
- Waste Management Plan. Disposal of waste materials; All the waste materials from the construction site, including barrels, wood, sand and gravel, cement bags, etc. must be disposed in an appropriate manner. If there is no possibility for recycling, incurring some reasonable costs, these materials should be transported to the approved landfill and deposited there. Hazardous waste will be stored and removed from the site after demobilization, in accordance with the Waste management law ("Off. Gazette RS", No. 36/2009, 88/2010 and 14/2016). CEP should cover the aspects of waste management, including the application of practical standards, such as reduction, re-usage and recycling. CEP is to define the final location for disposing all types of waste and show that it has been

done in accordance with the law and good waste management practice. In order to choose the location, use the Regional Waste Management Plan of Niš region.⁶ The waste management plan will include, at least, details of temporary waste disposal, waste transportation and pre-treatment process that precede the final disposal or recycling. Licensed/approved organizations must be used for collecting and storing solid and liquid waste. All types of waste leaving the site must be controlled and recorded. As part of the Plan, the Contractor shall provide chain-of-responsibility forms for the waste that leaves the site. Therefore, waste controller shall keep one copy of the form, and the driver shall have a copy, to make sure and get the signature on the final landfill. The Contractor shall keep all records for audit purposes and as a proof that this project applies the best practice and complies with the legal regulations.

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

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

- Management Plan for Works on the River. 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;
- Emergency Response Plan. CEP sets out the procedures for reacting in case of accidents or large incidents, to protect people, property and natural resources. It is necessary to provide the equipment to be brought on the site to minimize the effects of the spillage;
- Recultivation Plan: cleaning and recultivation of the construction site and removal of Contractor's facilities. The contractor is responsible for clearing the construction site. This includes the removal of all waste material and any kind of contaminated soil. In accordance with the Law on Waste Management (RS Official Gazette No 36/2009, 88/2010 and 14/2016), the Contractor shall develop a plan for handover, selling or removal of all vehicles and machinery, to remove them from the construction site. All construction sites and work areas will be rehabilitated, in order to be reinstated as much as possible. This includes stabilization and landscaping of all sites. In compliance with the Law on Environmental Protection (RS Official Gazette No 135/2004, 36/2009 – st.law, 72/2009 – st.law, 43/2011-CC decision and 14/2016), when the works are completed, waste must not remain on the construction site. If waste is not removed by the Contractor, PERS is entitled to withhold payment and organize cleaning of the area and then deduct the cleaning costs and administrative costs from the final payment.
- Plan of Environmental Grievances (grievance mechanisms and organization) which will show how local community and third parties affected by the project define complaints which are the consequence of rehabilitation and to whom these complaints should be addressed (e.g. through conversations, consultations etc.) (see Appendix 4, Project Grievance Mechanism);

Safety

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

- The Contractor shall ensure that drugs and alcohol are not used on the construction site;
- The Contractor should include a provision for safe working environment and safety measures and personal protective equipment (PPE) for all workers, including gloves, hard hats, goggles, ear protection and safety footwear in his Site Safety Plan;
- The Construction Site Safety Plan should include a provision for first aid to be administered on the site and a trained person must be engaged in

compliance with the Law on Occupational Health and Safety (RS Official Gazette No 101/2005, 91/2015 and 113/2017-st.law);

- The Contractor shall provide to his workers potable water supply, toilets and water supply for bathing;
- Safety Labour Management Plan (SLMP) prepared by PERS, is required to ensure health and safety provisions during the works on heavy maintenance;
- The Contractor shall perform all project activities following the SLMP, all Serbian laws and by-laws regarding health and safety.

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

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

Contractor shall provide the following:

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

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

Operational Phase

Concerning the road operational phase, special attention must be paid to safety of pedestrians, by using measures for traffic deceleration in the vicinity of schools and populated areas, improving road signs and markings, keeping a record of traffic accidents that are reoccurring 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 asphaltting and major repairs, is usually planned for a period of a few years.

B. MONITORING PLAN

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

Defining the environmental issues which should be monitored and means of verification:

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

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

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

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS

Project Implementation

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

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

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

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

- 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);

- II. The Contractor should not be compensated for the costs of the required mitigation measures and monitoring activities in the form of a specific item in the total price, except for the analysis of the quality of water and noise measuring. The Contractor should consider including these costs in the other items from the Bill of Quantities. The actual costs of the analysis of water quality and noise measuring will be paid to the Contractor as part of a specific item in the Bill of Quantities. Failure to follow the requested environmental mitigation measures on the Contractor's part will result in penalizing the Contractor in the form of negative points. Negative points have been established as a measure to stimulate the Contractor to perform his obligations in an organized and timely manner and perform his duty with a high degree of excellence. Negative points consist of two elements – numerical and financial. Each negative point is connected to a sum, representing a permanent reduction in payment for the determined 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. The Contractor must be explicitly requested to employ an environmental expert. The Contractor will be responsible for implementing environmental mitigation measures during road rehabilitation works and should employ an environmental expert who will supervise the implementation of Contractor's environmental responsibilities. This person will coordinate the work of the Contractor, PERS and the relevant ministry. The Contractor will appoint a committee to deal with every complaint received during the project implementation in cooperation with PERS. In the course of the project, PERS will monitor if the Contractor complies with EMP provisions. The Project Supervision Consultant is advised to employ an environmental expert (have experience of civil engineering and environmental management), to assist in environmental monitoring.

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

PERS shall also be responsible for the following:

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

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

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

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

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

Reporting Procedures

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

The Contractor will prepare, as quarterly progress reports, the reports for PERS, which would present all the mitigation measures and measures for environmental protection along with the anticipated activities for monitoring, which were performed during the reporting period. The Contractor will take due care of the quality of the environment, in accordance with Mitigation Plan and Monitoring Plan, which form an integral part of the EMP and will provide reports to PERS. In case of any accidents or environmental threats, there will be immediate reporting about these events. The

Contractor shall inform the project manager and local authorities immediately after the accident. If the project manager is not available, the Contractor shall inform PERS about the accident.

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

6. STAKEHOLDER ENGAGEMENT – INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

As requested by IFI safeguard policy, public consultations were held regarding the EMP preparation. EMP and other project-related information were presented to the public and 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, which will be updated accordingly.

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

Before the commencement of works, PERS 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 is applied to the complaints of all interested parties. The grievance form is shown in the Appendix 4, while hard copies will be available in local community centers. The report on public consultation is presented in Appendix 5 to this EMP.

7. REFERENCES

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

APPENDIX 1
MITIGATION PLAN

Phase	Issue	Mitigation measures	Responsibility		Comments
			Implementation	Supervision	
Pre-construction	Main Design Phase				
	Following the environmental protection procedure	The Designer obtained and implemented the conditions from the relevant institutions regarding the environmental protection (Ministry of Environmental Protection, Institute for Nature Conservation of Serbia, Republic Institute for Protection of Cultural Monuments-Belgrade, Institute for Cultural Monuments Protection of Kragujevac and PWC Srbijavode) in order to avoid environmental risks during the heavy maintenance.	PERS / Main Design Designer	Technical control / PERS	
	The choice of the location for the Contractor facilities and a construction site organization	<p>The location must be approved by PERS.</p> <ul style="list-style-type: none"> It is forbidden to form the location (construction site) for temporary disposal i.e. storage of required construction and other material and storage, in the coastal zone of rivers, as well as the space with high vegetation. The locations will be chosen in a way that has no impact on the environment and the local community (noise, dust, vibrations). To minimize the size of the facilities to minimize the unnecessary removal of vegetation Have the sanitary waste water treated before the water is discharged into the surface water system Paved areas, including parking areas, workshops and fuel storages must be 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. To avoid mechanical topsoil degradation. To prevent soil erosion on site. To limit the scope of the excavations to mitigate possible soil erosion. To avoid excavation and machine operations in damp site conditions. 	PERS/ Contractor	Supervising authority / PERS	
	Selection of the location for a temporary settlement, in the vicinity of or within the existing settlements, public health impact and sociological circumstances.	<ul style="list-style-type: none"> minimum distance must be kept (buffer zone) between the site and the nearest populated area influence of the local conditions must be taken into account (wind) to avoid or minimize harmful effects the contractor's EMP defines health and safety and environmental measures independent water and electricity supply, in addition to a medical service station with a trained employee on the construction site must be planned 	Contractor	PERS	
	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	Technical control / PERS	
Construction	Construction site induction				
	Safety on the construction site	All workers and visitors to the site shall be given a health and safety induction and instructed how to use PPE properly.	The Contractor's expert for H&S and environmental issues	Supervising authority	

	<p>MANAGEMENT PLANS Contractor shall prepare the implementation of the Plans described in the EMP, to ensure that the legislation and Creditor's requirements have been met:</p> <ul style="list-style-type: none"> - Site Organization Plan - Sewerage and Wastewater Management Plan, - Complaints procedure - Soil Management Plan - Dust Management Plan - A plan indicating the location of borrow-pits, and measures for recultivation of borrow pits and access roads after the project is completed - Waste and Wastewater Management Plan, in line with the Law on Waste Management (RS Official Gazette No 36/2009, 88/2010 and 14/2016) - Oil and Fuel Storage Management Plan - In-river Works Management Plan - Site Management Plan - Emergency Response Plan - Site management plan - Recultivation Plan - Safety and Hazard Assessment - Safety and Labor Management Plan 		Contractor	Supervising authority / PERS	
Construction	Material supply				
	Asphalt plant dust, fumes, health and safety effects, ecosystem disturbance	Use the existing asphalt plants, requirement for official approval or valid operating license	Asphalt plant	Asphalt plant / Supervising Authority	Bid supplier / Approved supplier
	Quarry: dust, health and safety of workers, ecosystem disturbance	Use the existing quarries, requirement for official approval or valid operating license	Quarry	Quarry / Supervising Authority	
	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	Contractor or gravel and sand separation facility / Supervising Authority	
	Concrete plant Dust, fumes, health and safety effects, ecosystem disturbance	Use the existing concrete plants or buy concrete from licensed suppliers. The material should have appropriate quality attestations	Concrete plant	Concrete plant / Supervising authority	
Construction	Material transportation				
	Dust, asphalt, fumes	All trucks need to be covered	Truck operator	Truck operator / Supervising Authority	
	Stone / Dust	wet / covered truck load	Truck operator	Truck operator / Supervising Authority	
	Sand, Gravel, dust	wet / covered truck load	Truck operator	Truck operator / Supervising Authority	

	Cement, concrete	Remove the fresh concrete which was negligently spilled from the mixer from the transport roads within 6 hours.	Truck operator	Truck operator / Supervising Authority	
	Traffic noise exhaust fumes and road congestion	Obeying the working hours (desirable from 9 am to 2 pm); the use of alternative routes to reduce the usage of the main roads to the minimum. Adequate temporary road signalization	Person in charge of transportation / truck operator	Person in charge of transportation / truck operator / Supervising Authority	
Construction	Construction site				
	negative impact of noise on workers and local community and fauna	<ul style="list-style-type: none"> - To limit the activities to daylight working hours (without works between 8 pm and 7 am) or work during the specified period, but with the approval of the population and management; - Use of construction machines with equipment that reduces sound; ensure the maximum functionality of machines by regular inspections (periodic) or an exceptional technical inspection of vehicles and equipment; - To use equipment with noise mufflers, licensed and approved in accordance with the EU standards - To use noise barriers for the works that produce noise for more than one day on the same location 	Contractor	Supervising Authority	
	Dust	<p>Measures to be introduces:</p> <ul style="list-style-type: none"> - avoiding/reducing to a minimum dust emission, - wetting/ spraying the construction site - construction site access, - material landfills during loading / discharging activities - covering the vehicles which carry dusty materials; - spraying/cleaning wheels on the vehicles; - limiting the speed of movement for vehicles, - Cleaning the construction site. 	Contractor	Supervising Authority	
	Vibrations	To limit activities to daylight working hours (without works between 8 pm and 7 am) or work during the aforementioned period, upon obtaining the permission from the inhabitants and management. Locate the equipment for earthworks as far away as possible from the vibration-sensitive receptors.	Contractor	Supervising Authority	
	Traffic disruption during construction activities	<ul style="list-style-type: none"> - Traffic Management Plan with appropriate measures for traffic diversions that can be easily noted and followed; - Including traffic police assistance if necessary - Traffic Management Plan which will define a speed limit for the construction vehicles and organize traffic in such a way that populated areas are avoided as much as possible. - During the execution of works, the existing road network is maximally used. Avoid the construction of new temporary roads, which would increase the habitat fragmentation - To inform the local community about the works planned 	Contractor	Supervising Authority/ PERS	
	Reduced access to roadside activities	Provide an alternative access to roadside activities at all times.	Contractor	Supervising Authority/ PERS	

	Safety of vehicles and pedestrians when / where there are no construction activities	Lighting and well-defined safety signs and protection measures.	Contractor	Supervising Authority/ PERS	
	Soil and water pollution from improper material storage, management and use	<p>Lighting and well-defined safety signs and protection measures.</p> <ul style="list-style-type: none"> - To organize and cover material storage areas; - To isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers; - Washing the trucks for concrete and asphalt, as well as washing other machinery is to be done exclusively in registered car washes - To organize the construction site so as to minimize the risk of generating sediments and accumulating waste water, which could cause pollution of the surrounding soil and water (consider situations such as drainage for atmospheric water, waste water collected from the structures on the construction site such as the structure for washing the wheels). - The Soil Management Plan must be prepared to control removal, storage and re-use of humus. - To use local controlled measures to prevent sediment flowing into surface water and drainage canals. Some of the measures include physical obstacles such as fences for sediments, checking barriers, mulch barriers, e.g. protective leaves cover, geotextile, rock groyne, and sediment basin), marking them in order to make the road slope optimal and the slope edges sharp (steep), - To prevent sediment flowing into surface water, slope of the soil and protection from wind erosion must also be considered, by installing fences, covers etc. 	Contractor	Supervising Authority	
	Soil and water pollution from improper material storage, management and use	<ul style="list-style-type: none"> - To dispose waste material at a location protected from washing out, on a marked location, if not on the site, then on an authorized landfill (in order to choose location, use the Regional Waste Management Plan of Niš region⁷). - Storage of materials in accordance with the best international practice (IFC, EHS - General Guidelines). - Apply additional measures for storing hazardous waste (such as secondary containment, limiting the access, providing PPE equipment etc.) to prevent negative effects on the workers, construction site staff, environment or the public. - Using and labelling the containers planned for waste collection, as well as the areas for disposing different types of waste (hazardous and non-hazardous). - Transport the waste in marked vehicles designed for waste transport, to minimize the risk of releasing substances (hazardous and non-hazardous substances) as well as remains that can be carried by the wind. - To train the drivers in handling and disposal of the load they transport and transport documents describing the nature of the load (waste) and its degree of hazard. 	Contractor	Supervising Authority	

⁷ http://www.sepa.gov.rs/download/UpravOtpad/RPUO_NiskiRegion.pdf

	Potential contamination of soil and water from improper maintenance and fueling of equipment	<ul style="list-style-type: none"> - Disposing of and handling lubricants, fuel and solvents is to be performed exclusively in the secured area and storage with concrete base; - To ensure proper loading of fuel and equipment maintenance; - To collect all waste and dispose it on authorized recycling locations 	Contractor	Supervising Authority	
	Safety of workers	<ul style="list-style-type: none"> - provide workers with safety instructions and PPE - provide a safe alternative traffic flow 	Contractor	Supervising Authority	
	soft/hard landscaping	<ul style="list-style-type: none"> - <input type="checkbox"/> Take measures to gradually establish vegetation again by covering crops and natural endemic species and monitoring their effectiveness. - <input type="checkbox"/> In places where the initial planting failed, plant replacements will be made. - <input type="checkbox"/> Avoid invasive and allergenic species 	Contractor	Supervising Authority	
	Possibility of an archaeological site existence	In case the Contractor comes across an archaeological site (special attention is paid to the parts of the section indicated under the conditions of the Institute for Protection of Cultural Monuments of Kragujevac), 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>	<u>Special measures defined by the conditions of relevant institutons</u>				
	<p>The Institute for Nature Conservation of Serbia</p>	<ul style="list-style-type: none"> - The main design of heavy maintenance of the section related to the state road IA class no. 1 (E-75) section of Razanj - intersection Paracin foresees such solutions and measures that will provide conditions for the preservation of air, soil, underground and surface water in the immediate environment. - It should be envisaged by the Project to undertake anti-erosion protection measures (biological, biotechnical and technical) from landslides, rockfalls, etc. - Define that the drainage of the carriageway is carried out by the force of gravity pulling on surface water and, if necessary, open canals which will receive surface water should be made. - For water generated by car wash polluted with oils and other petroleum products, it is necessary to foresee the construction of intake pipes and separators of grease and oil. Before discharging it into the recipient or sewage system, it is necessary to control their quality. - For surface coarse use materials that provide noise and vibration reduction and allow efficient drainage of water from the surface of the carriageway - The works on the road route should only be performed during a day due to the possible impact of noise from construction machinery and vehicles. - When carrying out the works, a strict adherence to the route and corridor of the road is demanded in order not to leave an impact on a wider space using vehicles and machinery. To use the existing road network without building new roads, in order to prevent the fragmentation of space and existing habitats. - During the execution of works along the entire route, the maximum level of communal order should be maintained. - In order to prevent accidents, preventative measures should be foreseen. If accidents occur, an appropriate rehabilitation should be carried out with the obligation to notify competent inspection services and institutions. - If there is a fuel, oil or any other hazardous materials spill by accident, in order to protect the land, an immediate remediation in order to return to the original condition is required. - An integral part of the Project should be related to the organization of the site, where it is necessary to define and provide: <ul style="list-style-type: none"> - temporary locations for the storage of the necessary construction and other materials and equipment, which must be located outside the coastal zone of rivers (floodplain zone), the area with high vegetation and be limited only during the execution of works, - Temporary or permanent locations must be provided (the existing organized communal facilities/ landfills) for disposal and deposing muck and other waste in any form, as well as communal waste produced during the works. Waste disposal in the coastal area and the river bank of Uvac and Sjenica lake, as well as on the agricultural land shall be prohibited, except in the locations defined by the Project; - When the works concerned are done, all surfaces that are degraded in any way should be rehabilitated as soon as possible. - Once construction works are completed, it is necessary to remove all mechanization, building materials and other materials as soon as possible. - If there is a violation of the subject area, that road must be rehabilitated by establishing a plant cover (cultivate terrain) in all places that are damaged, renaming appropriate flora and species that are biologically stable under given climate conditions, relatively resistant to harmful effects (exhaust gases, etc.). - Avoid species that are recognized as invasive for our climate: <i>Acer negundo</i>, <i>Amorpha fruticosa</i> (acacia), <i>Robinia pseudoacacia</i> (Black locust), <i>Ailanthus altissima</i> (tree of heaven), <i>Fraxinus americana</i> (American ash), <i>Fraxinus pennsylvanica</i> (Green ash), <i>Celtis occidentalis</i> (Hackberry), <i>Ulmus pumila</i> (Siberian elm), <i>Prunus padus</i> (bird cherry) and <i>Prunus serotina</i> (black cherry), and species that are determined as allergens (poplars, etc.). - If during the works it encounters geological-palaeontological or mineralogical-petrochemical objects, which are presumed to have a natural good property, the Contractor is obliged to notify the ministry responsible for environmental protection within eight days, or take all measures in order not to damage the natural good until the arrival of an authorized person. 			

	The Institute for Protection of Cultural Monuments of Kragujevac	<p>There is registered archaeological site Slatina, the Turkish fountain-Drenovac in the vicinity of the section.</p> <ul style="list-style-type: none"> - Presence of experts of the competent Institute is obligatory during the performance of all earth works on the archaeological site. - The costs of supervision over the performance of works are funded by the investor. - The investor is obliged to notify the Institute for Protection of Cultural Monuments of Kragujevac within 15 days prior to commencement of the works. - If during archeological excavation certain materials are found, all costs of archeological research, conservation of discovered sources, protection and preservation of possible immovable property are funded by the investor, under the conditions prescribed by the competent Institute for the Protection of Cultural Monuments - Regarding the remained area, it is obligatory to respect Art. 109 of the Law on Cultural Property (Official Gazette of the Republic of Serbia No. 71/94), which states: If during the execution works certain remains of archaeological origin are found out, the contractor is obliged to suspend further works immediately and without any delay notify the competent institute for protection of cultural monuments to ensure that the findings are not destroyed and damaged. They should be preserved in the place and position in which they are discovered. 			
Operation	Maintenance				
	negative impact of noise on local residents, animals and workers	<ul style="list-style-type: none"> - limit activities to daylight working hours (no works between 8pm and 7am or in accordance with the public consent); - use the equipment with noise mufflers installed 	Contractor of works on maintenance	Contractor of works on maintenance	It should be specified in the contract maintenance documentation - Technical Specifications for the performance of maintenance works
	Potential air, water and soil pollution: dust, exhaust fumes, spilt fuel, oil and lubricants	<ul style="list-style-type: none"> - apply the best engineering practice in handling and safe storage of lubricants, fuel and oil in secured storages; - ensure proper loading of fuel and maintenance of equipment; - collect and dispose all waste in accordance with the Law on Waste Disposal; - properly organize and cover the areas for material storage; - isolate concrete and asphalt works from the watercourse by using sealed formwork; - washing the vehicles and construction machines is exclusively done in registered car washes 	Contractor of works on maintenance	Contractor of works on maintenance	
	Vibrations	limit activities to daylight working hours (no works between 8 pm and 7am, or as agreed with the public and authorities)	Contractor of works on maintenance	Contractor of works on maintenance	
	Safety of workers	<ul style="list-style-type: none"> - provide workers with safety instructions and PPE; - Organize safe traffic bypass using alternative roads and appropriate traffic signage. - All the workers and visitors to the construction site will be introduced to the basics of environmental protection and safety measures and protection at work and will be given instructions for using the Personal Protective Equipment. 	Contractor of works on maintenance	Contractor of works on maintenance	

	Maintenance	<ul style="list-style-type: none"> - Regularly maintain curbs; - Mow and maintain grass and take it to the landfill; - Regularly clean drainage structures (gullies) and dispose waste material on specially designated landfill; - Regularly clean the road surface, - Fill in the holes, joints and cracks; - The remains of asphalt after works should be transported and stored on an appropriate landfill designated for construction materials; - Clean the road surfaces regularly and timely, as well as the surrounding road structures in case of a traffic accident or overturning of tanks or other trucks; - Make repairs 	Contractor of works on maintenance	Contractor of works on maintenance	
	increased vehicle speed	install speed limit signs	Contractor of works on maintenance	Contractor of works on maintenance	It should be specified in TS in the part about maintenance works
	Erosion, rockfall, hazardous situation	<ul style="list-style-type: none"> - install suitable warning signs (rockfall, landslide, wet or slippery conditions, dangerous curve, animal or pedestrian crossing, school, slow traffic zone, merging), - reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility; - warning signs on locations considered appropriate in line with good engineering practice or as agreed with the authorities 	Contractor of works on maintenance	Contractor of works on maintenance	

APPENDIX 2

MONITORING PLAN

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
Construction	Material supply					
Asphalt plant	Possession of an official approval or valid (operating) license	Asphalt plant	Inspection / Supervising engineer	Prior to the commencement of works	Обезбедити усклађеност базе са захтевима заштите животне средине, безбедности и здравља на раду	Руковаоц базе
Quarry	Possession of an official approval or valid (operating) license	Quarry	Inspection / Supervising engineer	Prior to the commencement of works		Руководилац каменолома
Sand and gravel borrow-pit	Possession of an official approval or valid (operating) license	Sand and gravel borrow-pit	Inspection / Supervising engineer	Prior to the commencement of works		Руководилац позајмишта или сепаратора
Concrete plant	Possession of an official approval or valid (operating) license	Concrete plant	Inspection / Supervising engineer	Prior to the commencement of works		Руководилац бетонске базе
Construction	Material Transport					
Asphalt	Covered truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Stone	Covered or wet truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision

Phase	Which parameters to be monitored?	Location where the parameter is 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
Sand and gravel	Covered or wetted truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Concrete plant	Removing fresh concrete that was accidentally spilled from the mixer on the transport roads within 6 hours	Construction Site	Supervising engineer	Unannounced inspections during the works	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Traffic guidance	Chosen hours and routes	Construction Site	Supervision	Unannounced inspections during the works	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Construction	Construction site					
Adverse effects of noise on the workers and local residents	Noise levels	Construction site, nearby houses along the construction site	equipment – manual equipment for analyzing (detecting the level of noise) with the software for its application	<ul style="list-style-type: none"> – Once, at the beginning of the project – quarterly, – due to grievances. – If the tracking results are not satisfactory, it is to be prepared on a monthly level 	Ensure the compliance of the plant with the health and safety and environmental requirements.	Contractor's supervision (monitoring)
Water and soil pollution resulting from improper material storage, management and use	soil and water quality (suspended solids, oils, PH values, conductivity)	Watercourses near the storage places	<ul style="list-style-type: none"> – Unannounced sampling; – analysis in a certified laboratory possessing the required equipment 	Monitoring should be performed prior to the construction (at the reference point upstream from the construction site) and once during the rehabilitation works. If the tracking results are not satisfactory, it should be performed at a monthly basis until the works on the site are finished	Minimal disruptions of traffic	Contractor's supervision (monitoring)
Dust	Air pollution (solid particles)	On and near the construction site, quarry, inhabited settlements...	Inspection and visual observation	Unannounced inspections during the delivery of materials and construction	Ensure the compliance of the plant with the health and safety and environmental requirements.	Contractor's supervision (monitoring)

Phase	Which parameters to 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	The existence of the Traffic Management Plan and traffic pattern	On the construction site and area nearby it	Inspection; supervision	<ul style="list-style-type: none"> - Prior to the commencement of works; - once a week in the periods with the largest amount of works and - calm periods when the quantity of activities is not the highest 	Minimal disruptions of traffic	Contractor's supervision
Reduced access to roadside activities	alternative access provided	Construction Site	Supervision	Random checks at least once a week during construction site activities	Minimal disruptions of traffic	Contractor's supervision
Safety of vehicles and pedestrians where there are no construction activities	visibility and suitability	On the construction site and area nearby it	Observation	Random checks at least once a week at evening hours	Ensure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
safety of workers	PPE; bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the works.	Ensure the compliance with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor's supervision
Operation	Maintenance					
Negative effect of noise on the workers and local residents	Noise levels	Construction Site; nearby houses	equipment – manual equipment for analyzing (detecting the level of noise) with the software for its application	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS

Phase	Which parameters to 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 activities	Construction Site	Supervision	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS
Safety of workers	PPE; bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements.	PERS
Period of Use	Road safety					
Increasing the speed of vehicles	The conditions of traffic signs, the vehicle speed	Road section included in the design	Visual observation; Speed detection	During the activities, announced	Ensure safe and economical traffic flow	Contractor of works on maintenance; Traffic police
erosion, rockfall and hazardous situations	The condition of danger warning signs	Road section included in the design	Visual observation	During the activities	Ensure safe and economical traffic flow	Contractor of works on maintenance, tracking the impact (monitoring)

1. General		
Is the project compliant with all the requirements (taking account of agreed action plans, exemptions or derogations)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If no, please provide details of any material non-compliances:
Is the project compliant with all applicable environmental and social laws and regulations?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If no, please provide details of any material non-compliances:
Are there any accidents or incidents that have caused damage to the environment, brought about injuries or fatalities, affected workers, local communities or cultural property? Has it created liabilities for the company?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe, including details of actions to repair and prevent reoccurrence:
Are there any changes to environment, social, labor or health and safety laws or regulations that have materially affected the company?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe:
How many inspections were carried out by the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any possible violations:
How many inspections were carried out by the health and safety authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
How many inspections were carried out by from the labor authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
Have these visits resulted in any penalties, fines and/or corrective action plans?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe, including status of implementing corrective actions to address any violations found:
Has the Company engaged any contractors for project-related work in the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state for which types of work, and how the company has monitored the compliance of contractors with EBRD Performance Requirements and the Environmental and Social Action Plan:
Were there any violations stated above regarding the responsibility of contractors?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details, including how the Company is ensuring those corrective actions implemented by the Contractor?

Have any operations been reduced, temporarily suspended or closed down due to environmental, health, safety or labor reasons?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe:
<p>Please describe any environment or social programs, initiatives or sub-projects undertaken during the reporting period to improve the company's environmental or social performance and/or management systems:</p> <p>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:</p>		

2. Status of the Environmental and Social Action Plan

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

3. Environmental Monitoring Data 8

Please provide the name and contact details for your environmental manager:

Parameter ⁹	Value ¹⁰	Unit	Compliance Status ¹¹	Comments ¹²
Waste water				
Total waste water generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
Air Emissions				
SO ₂				
NO _x				
Particles				
CO ₂				
CH ₄				
N ₂ O				

⁸ Please provide the results of monitoring environmental parameters carried out by the Company or its consultants. If you have already had all the necessary information available in another format, you can use that format instead of the one provided here

⁹ Not all parameters will necessarily be applied. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.

¹⁰ Please ensure that the units of measurement are clearly stated.

¹¹ Please state the standards applied in this project (typically local, EU and/or World Bank Group)

¹² In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

3. Environmental Monitoring Data 8

Please provide the name and contact details for your environmental manager:

Parameter ⁹	Value ¹⁰	Unit	Compliance Status ¹¹	Comments ¹²
HFCs				
PFCs				
SF ₆				
[Other]				
Other Parameters				
Noise				
[Other]				
Solid Waste				

Please provide details of the types and amounts of solid wastes generated by the project. Indicate places where waste is classified as hazardous. Indicate the final re-use, recycle or disposal method for each waste type.

4. Resource Usage and Product Output			
Parameter	Value	Measurement Unit	Comments ¹³
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			

¹³ In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility Please include any fuel quality parameters (e.g. calorific value)

5. Human Resources Management			
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 reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, how they were selected, consultation undertaken, and measures to mitigate the effects of redundancy:	
Are there any planned redundancies to the workforce in the next year?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation process:	
Were there any changes in trade union representation at Company facilities during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details, and summarize engagement with trade unions during reporting period:	
Are there any other worker representatives (e.g. in the absence of a trade union)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details and summarize engagement with them during reporting period:	
Were there any changes in the status of Collective Agreements?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details:	
Have employees expressed any grievance regarding the project during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many, divide by gender, summarize the issues expressed by male and female staff and explain how the Company has addressed them:	
Have employees expressed any complaint about harassment or bullying during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many, divide by gender, summarize the issues expressed in grievances by male and female staff and explain how the Company has addressed them	

Were there any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved
Were there any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:
<p>Were there any changes to the following policies or terms and conditions during the reporting period in any of the following areas:</p> <ul style="list-style-type: none"> • Union recognition • Collective Agreement • Non-discrimination and equal opportunity • Equal pay for equal work • Gender Equality • Bullying and harassment, including sexual harassment • Employment of young persons under age 18 • Wages (wage level, normal and overtime) • Overtime • Working hours • Flexible working / work-life balance • Grievance mechanism for workers • Health & safety 	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please give details, including some 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 employees	Contracted workers
Number of hours during the reporting period when people worked:			Number of fatalities ¹⁴ :		
Budget spent on OHS in this period (total amount and currency):			Number of injuries:		
OHS training provided in this period among employees-days:			Number of Lost Time Incidents (including vehicles) ¹⁵ :		
Number of lost workdays ¹⁶ resulting from incidents			Number of cases of occupational disease:		
Number of days when people are on sick leave:					
Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):					
Please provide details of any fatalities or major accidents that have not previously been reported to EBRD, including total compensation paid due to occupational injury or illness (amount and 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:					

¹⁴ If you have not done it yet, please provide a separate report on the circumstances of each fatality in a great detail.

¹⁵ Incapacity to work for at least one full workday on the day when the accident or illness occurred.

¹⁶ The number of workdays is related to lost workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

7. Stakeholder Engagement

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

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

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

Please describe any changes to the Stakeholder Engagement Plan:

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

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

Existing Land Acquisitions

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

Have all the affected persons been fully compensated for their physical displacement and, if applicable are there any economic losses resulting from the project?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If no, specify how many compensation payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made:
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 <input type="checkbox"/> No <input type="checkbox"/>	If yes, quantify these impacts and specify what measures have been undertaken to minimize and mitigate these impacts. If no, specify how potential impacts on livelihoods have been monitored.
Have any vulnerable groups been identified?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, list the groups that were identified and describe any additional measures undertaken in order to mitigate impacts specific to these groups.
If applicable, have all transit allowances been paid?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If no, specify how many payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made.
Has legal support been provided to all affected persons?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, specify how many persons effectively made use of the legal support.
Have all outstanding land and/or resource claims been settled?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/>	If no, specify how many claims are still outstanding and state what the expected timing is for settling them.
Are there any new land acquisition-related complaints or grievances?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many and summarize their content.

Has the company regularly reported the affected communities on the progress made in implementing the RAP?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many meetings were held and how many participants attended those meetings
<p>New Land Acquisitions</p> <p>If the company acquired any new land for the project during the reporting year, please provide documents to show closure of land acquisition transactions. Please attach new/revised RAP covering the new land acquisition and describe mitigation measures, compensation, agreements reached, etc. and provide in tabular form a list of affected people and status of compensation.</p>		
Are there any persons that have been physically displaced?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, how many?
Are there any persons that have been economically displaced?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, how many?
Will the government assist that resettlement?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

9. Community Interaction and Development

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

APPENDIX 3

LEGISLATION

REGULATIONS AND REQUIREMENTS

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

BASIC NATIONAL LEGISLATION:

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

1. **Law on planning and construction** ("Off. Gazette RS", no. 72/2009, 81/2009 - correction, 64/2010 - CC decision, 24/2011, 121/2012, 42/2013 - CC decision, 50/2013 - CC decision, 98/2013 - CC decision, 132/2014 and 145/2014);
2. **Law on nature protection** ("Off. Gazette RS", no. 36/2009, 88/2010, 91/2010 - correction and 14/2016);
3. **Law on environmental protection** ("Off. Gazette RS", no. 135/2004, 36/2009, 36/2009 - state law, 72/2009 - state law, 43/2011 - CC decision and 14/2016)
4. **Law on EIA** ("Official Gazette RS" no. 135/2004, 36/2009);
5. **Law on Strategic EIA** ("Official Gazette RS" no.. 135/2004 and 88/2010);
6. **Law on waste management** ("Off. Gazette RS", no. 36/2009, 88/2010 and 14/2016);
7. **Law on noise protection** ("Off. Gazette RS", no. 36/2009 and 88/2010);
8. **Law on water** ("Off. Gazette RS", no. 30/2010, 93/2012 and 101/2016)
9. **Law on forests** ("Off. Gazette RS", no. 30/2010, 93/2012 and 89/2015)
10. **Law on air protection** ("Official Gazette RS", 36/2009 and 10/2013);
11. **Law on safety and health at work** ("Off. Gazette RS", no. 101/2005, 91/2015 and 113/2017 - state law)
12. **Law on roads** ("Official Gazette RS" No. 41/2018)

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

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

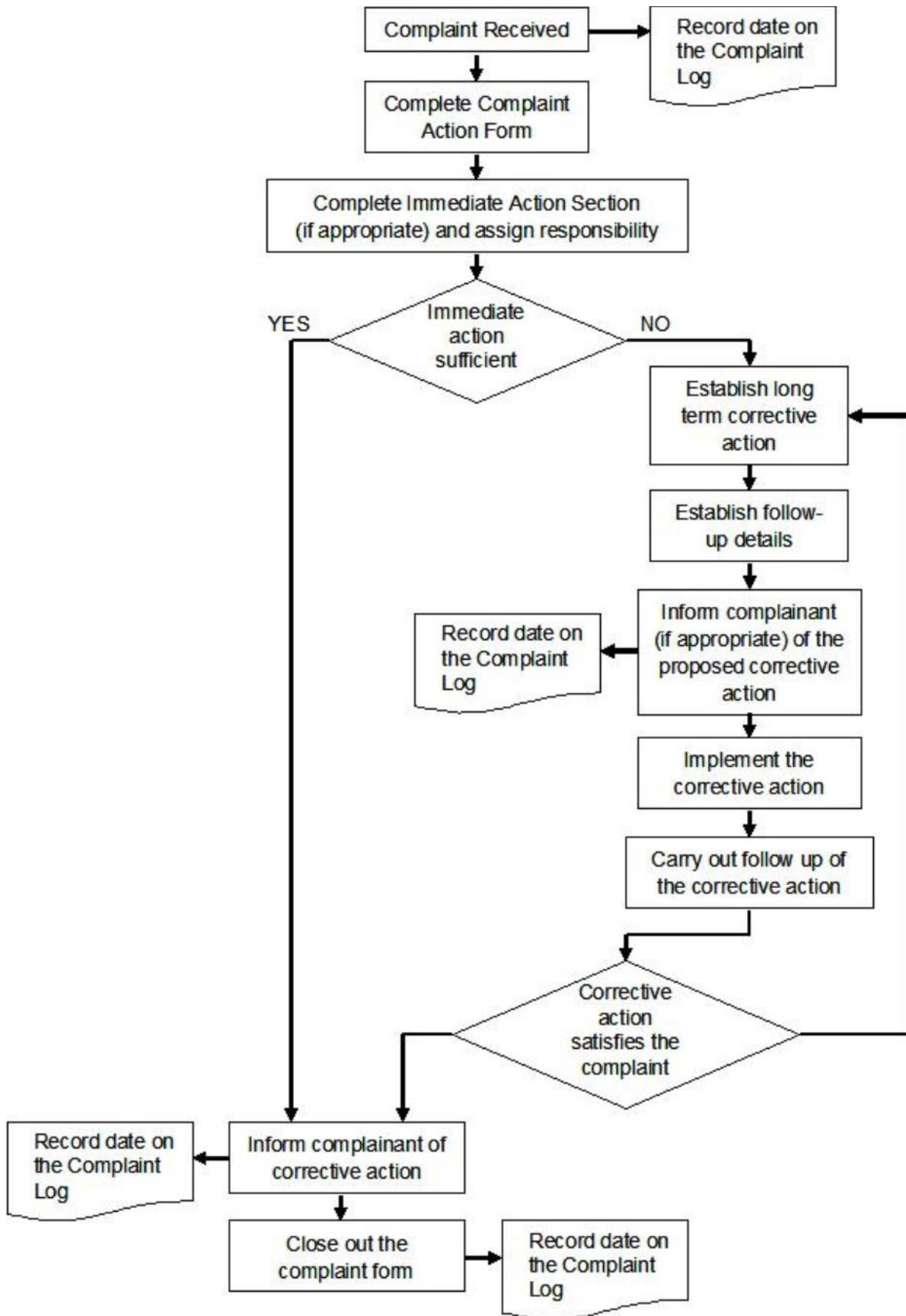
Other relevant Serbian legislation

1. Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area ("Official Gazette RS", 38/09);

APPENDIX 4

THE GRIEVANCE MECHANISM AND FORM

The algorithm of the grievance flow / Complaint procedure



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

APPENDIX 5

PUBLIC CONSULTATIONS

1. INTRODUCTION

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

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

Environmental Management Plan was prepared within Road Rehabilitation and Safety Project, for suggested heavy maintenance of State Road IA class, No. 1 section: Razanj interchange – Paracin 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 24.781 km. The beginning of the section intended for rehabilitation is defined on the chainage km 385+067 at the node 0145 Razanj interchange and the end of the section is defined on the chainage km 360+249 at the node 0143 Paracin interchange. The subject of the project is the left lane of the highway, observed in the direction of chainage increase.

Main Design Designer prepared a draft document of the Environmental Management Plan for the rehabilitation of the State Road IA No.1, Section: Razanj interchange-Paracin 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: Razanj interchange- Paracin interchange on November 1st, 2018. The call was published on the PE Roads of Serbia's website (November 1st, 2018), as well as in "Politika" newspapers (November 5th, 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 Paracin, Razanj and Cicevac. 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, Vlakoviceva 19a Street, Belgrade, on the first floor, every working day from 11:00 AM to 01:00 PM, within 14 days from the date of publication of this notice;
- within the premises of Department for Urbanism and Property Legal Affairs, Tome Zivanovica 10 Street, 35250 Paracin, every working day from 10:00 AM to 3:30 PM within 14 days from the date of publication of this notice;
- within the premises of a small conference room of Municipal Assembly of Razanj, the Square of St. Sava 33, 37215 Razanj, every working day from 8:00 AM to 3:00 PM (local time), within 14 days from the date of publication of this notice.
- within the premises of Department for Urban Planning, Karadjordjeva 106 Street, 37210 Cicevac, 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: www.putevi-srbije.rs

Public consultation and presentation of the Environmental Management Plan was held in the premises of Department for Urbanism and Property Legal Affairs of Municipality of Paracin, on November 22nd, 2018, from 11:00 AM to 12:00 AM. The list of questions and answers is in Chapter 3.

2. REPORT ON PUBLIC CONSULTATION, PARACIN NOVEMBER 22. 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.1, road section: Razanj interchange – Paracin interchange, in length of 24.781 km, has been prepared.

Environmental Management Plan was made publicly available on November 1st, 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 Paracin, Razanj and Cicevac. Document was posted on the website of PE Roads of Serbia.

Representatives of local self-government informed the public through local media about the time and place of the public consultation. The insight into the draft of the Environmental Management Plan was completed on November 22nd, 2018, when public consultations were held in Paracin.

Public consultations, held in Paracin on November 22nd, 2018, were attended by 9 people¹⁷. The representatives of the Municipality of Paracin, Administration Sector, representatives of PE "Directorate for the Construction of Municipality Paracin" as well as 2 representatives of Designers were among the participants.

¹⁷ The list of participants is in Chapter 4.

People who participated on public consultations were:

No.	Name and Surname	Working organization-institution
1.	Ivan Kostic	Municipality of Paracin, Department for Urbanism and Property Legal Affairs
2.	Jovana Marinkovic	„MHM“ Projekt
3.	Marko Milosevic	Municipality of Paracin, Administration Sector
4.	Jasmina Cvetkovic	Municipality of Paracin, Administration Sector
5.	Boban Dejanovic	Municipality of Paracin, Administration Sector
6.	Miroslav Stojanovic	„MHM“ Projekt
7.	Petrovic Ljubinka	PE “Directorate for the Construction of Municipality Paracin”
8.	Sanja Popovic	PE “Directorate for the Construction of Municipality Paracin”
9.	Stanka Jovanovic	Municipality of Paracin, Administration Sector



Figure 1. Public Consultations Held in Premises of Department for Urbanism and Property Legal Affairs of the Municipality of Paracin on November 22nd, 2018

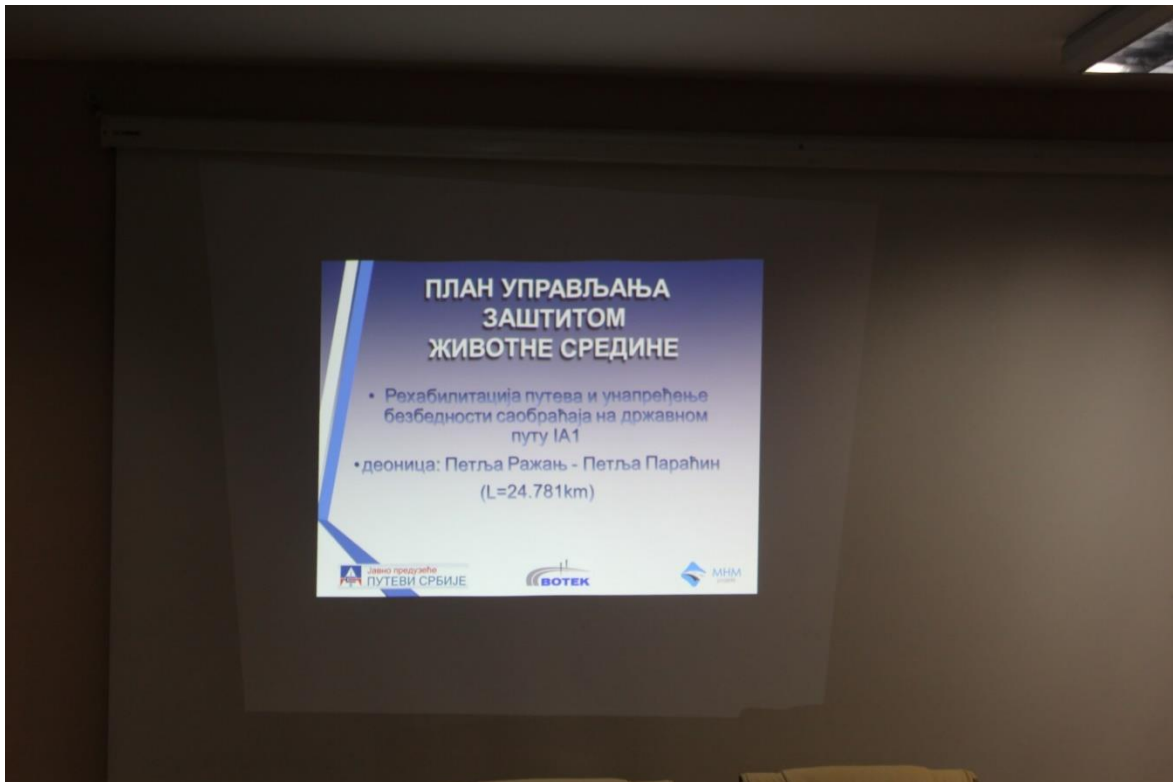


Figure 2. Public Consultations Held in Premises of Department for Urbanism and Property Legal Affairs of the Municipality of Paracin on November 22nd, 2018



Figure 3. *Public Consultations Held in the Premises of Department for Urbanism and Property Legal Affairs of the Municipality of Paracin on November 22nd, 2018*

Public consultations of the Environmental Management Plan for the project of Road Rehabilitation and Safety Project for the State Road IA No. 1, road section: Razanj interchange – Paracin interchange started at 11:00 AM. The main Plan was presented by the Designer. During public consultations, there were questions related to environmental protection of the observed section. The answers to these questions are in Chapter 3.

3. COMPLAINTS, QUESTIONS AND ANSWERS

Question 1: Will the connection between the culvert and main recipient, namely the evacuation of outflows outside the road zone be planned by the Main Design?

Answer 1: The connection between the culvert and recipient will be planned by the Main Design. The investor will make the final decision whether the design will deal with the connection of the culvert and the recipient in case when that connection is not a part of the road zone anymore.

Question 2: Were the noise barriers foreseen by the Project?

Answer 2: The designer foresaw the installation of noise barriers in the phase of the execution of works, in places where there is need for their installation. The Contractor is obliged to define in the Contractor's Environmental Management Plan the exact location of the installation of noise barriers.

At the level of the Main Design, the installation of permanent noise barriers will be defined, if the need arises.

Question 3: Will and where the collected runoff from the carriageway be purified?

Answer 3: The collected runoff will be purified on places where the observed section is intersected by registered places of runoff.

Question 4: When will the rehabilitation work begin?

Answer 4: The commencement of work is expected not before the end of 2019.

4. LIST OF PARTICIPANTS

Редни број	Име и презиме	Радна организација - установа	Потпис
1.	Jovana Marinković	MHM - projekt Novi Sad	[Signature]
2.	Miroslav Stojanović	MHM - projekt Novi Sad	[Signature]
3.	Иван Костић	Одељење за урбанизам и имовинско-правне послове Параћин	[Signature]
4.	Марко Милошевић	Одељење за урбанизам и имовинско-правне послове Параћин	[Signature]
5.	Petrović Bujbuka	JП Дирекција за изградњу и одржавање државног пута 1А реда бр. 1, деоница: Ражањ - Алексинац	[Signature]
6.	Снежана Поповић	JП Дирекција за изградњу и одржавање државног пута 1А реда бр. 1, деоница: Ражањ - Алексинац	[Signature]
7.	Jasmina Svetković	ОП Параћин	[Signature]
8.	Борис Агељковић	ОУ Параћин	[Signature]
9.	Љиљана Јовановић	ОУ Параћин	[Signature]
10.			
11.			
12.			

Figure 4. A List of People Present at Public Consultations Held in the Premises of Department for Urbanism and Property Legal Affairs of the Municipality of Paracin

5. DOCUMENTATION

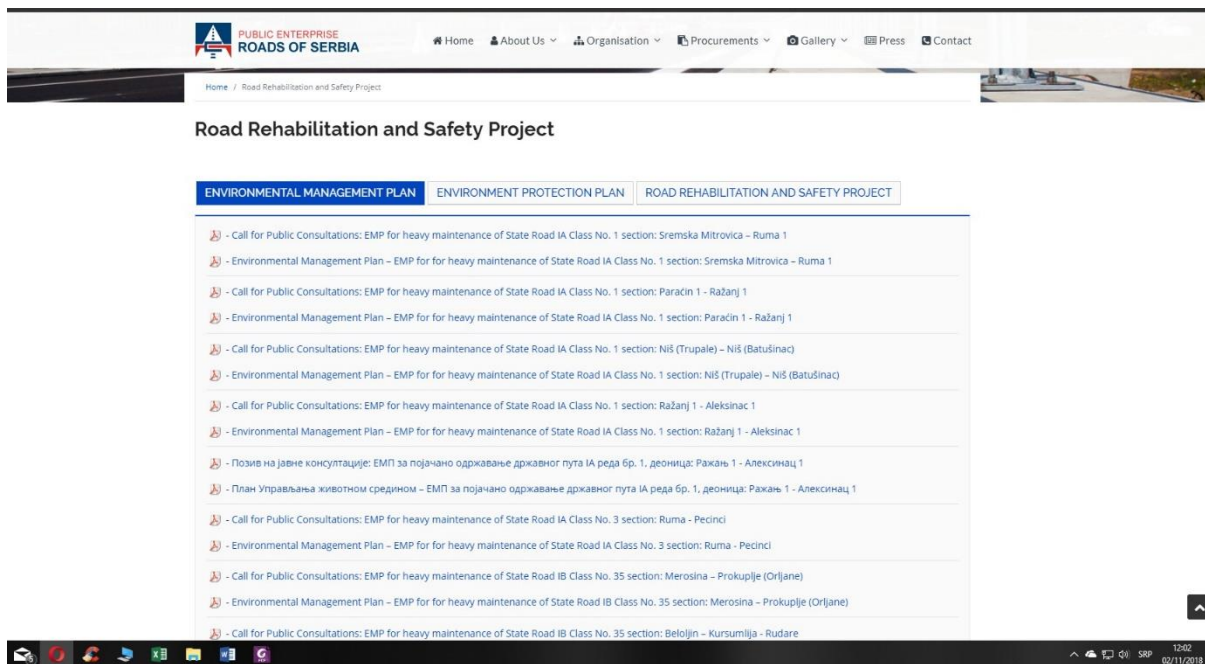


Figure 5. Call for Public Consultations Posted on the website of PE "Roads of Serbia"

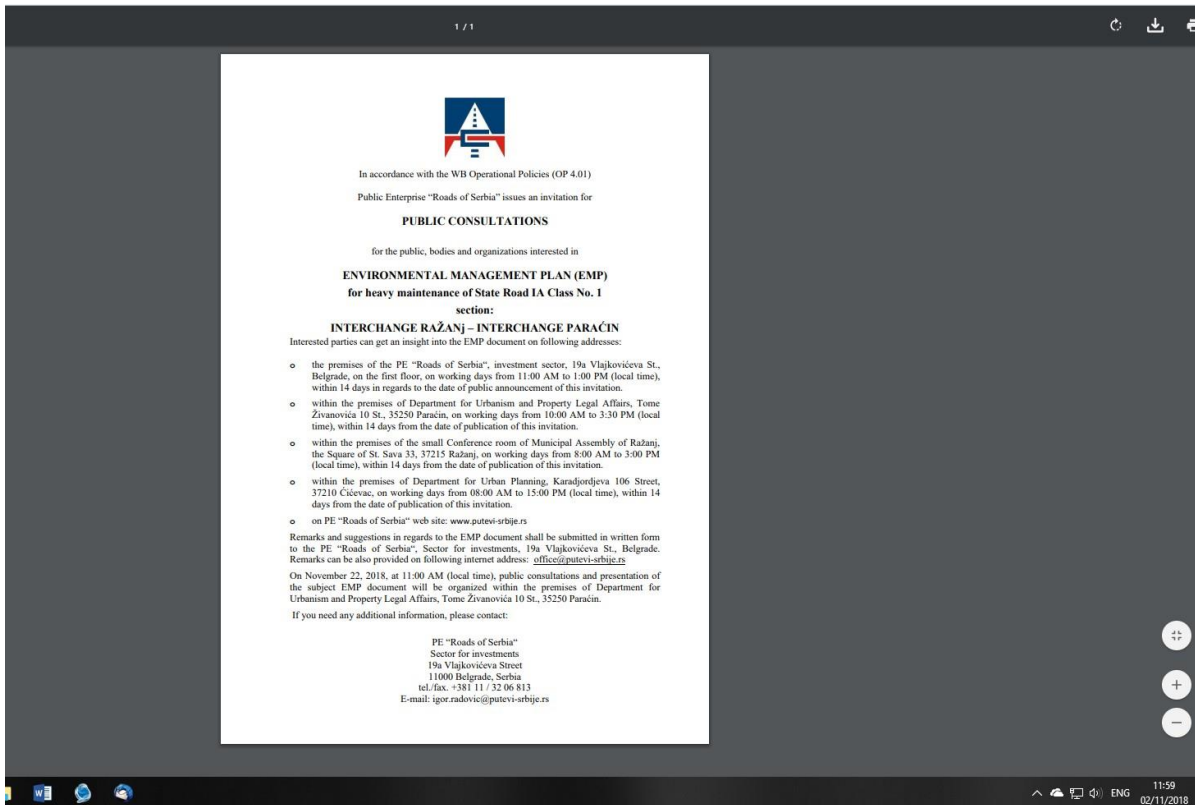


Figure 6. Announcement of Public Consultation Posted on the Website of PE "Roads of Serbia"

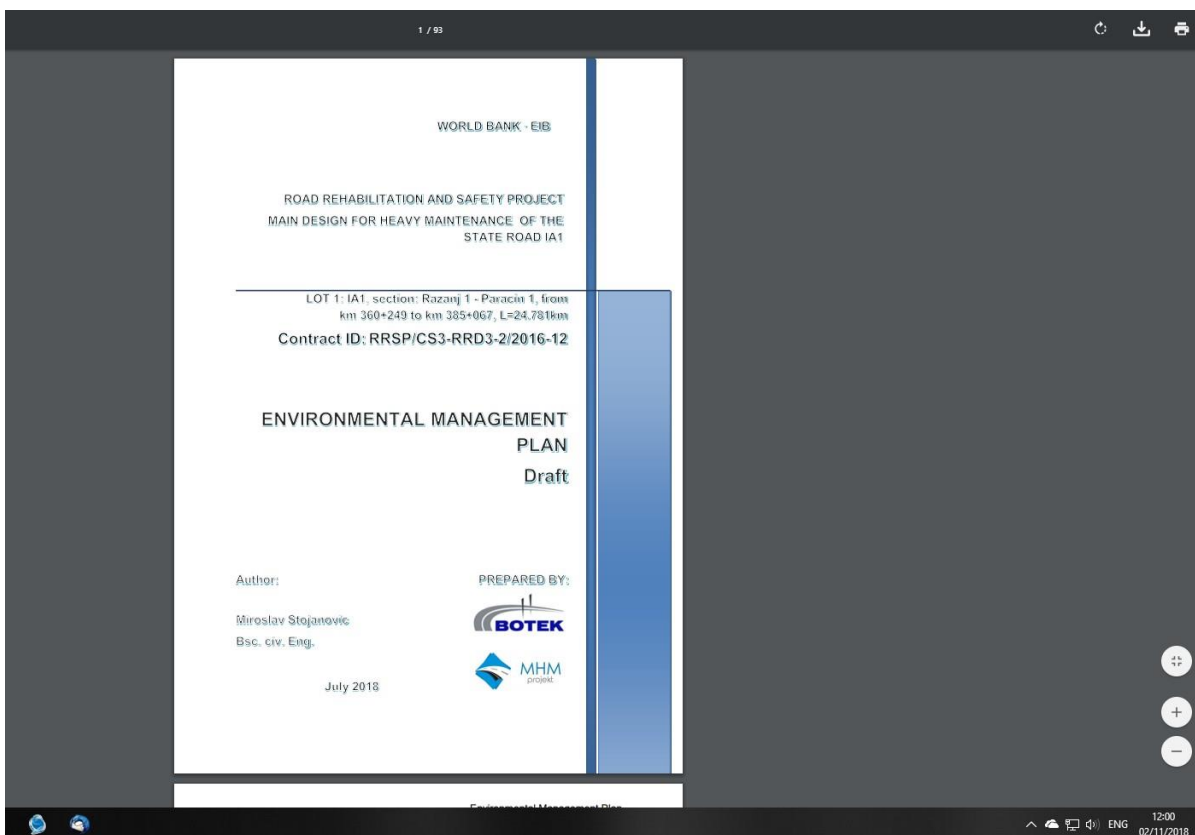


Figure 7. Environmental Management Plan Posted on the website of PE "Roads of Serbia"



Figure 8. Announcement Published in „Politika“ Newspapers

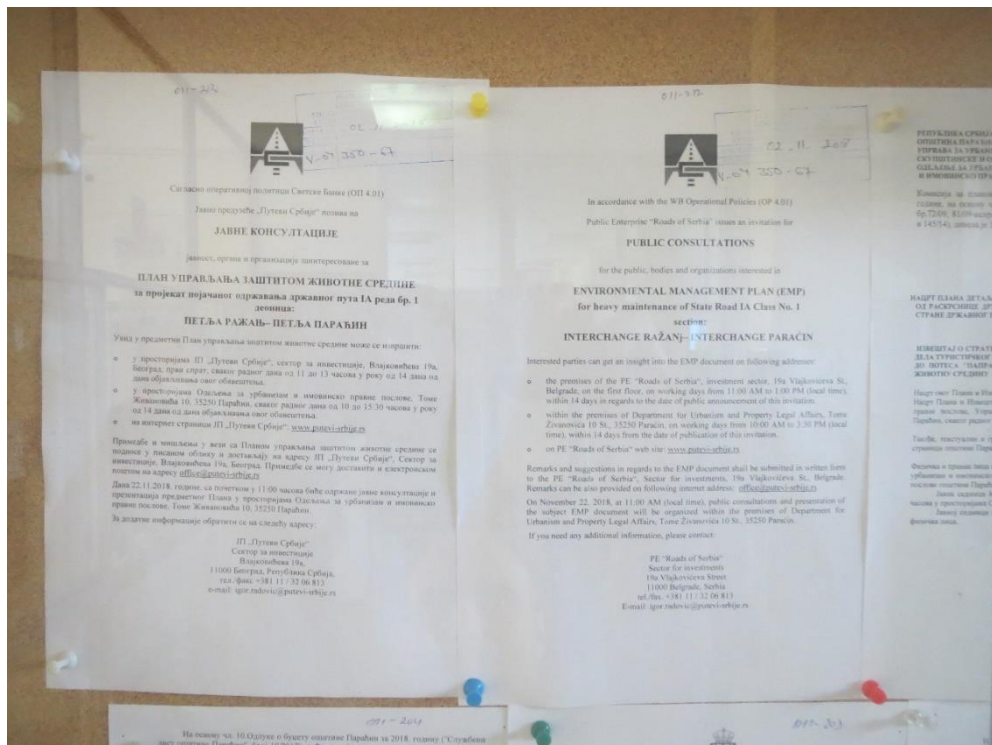


Figure 9. Notice of a Public Consultation Meeting Hung on the Bulletin Board in the Municipality of Paraćin

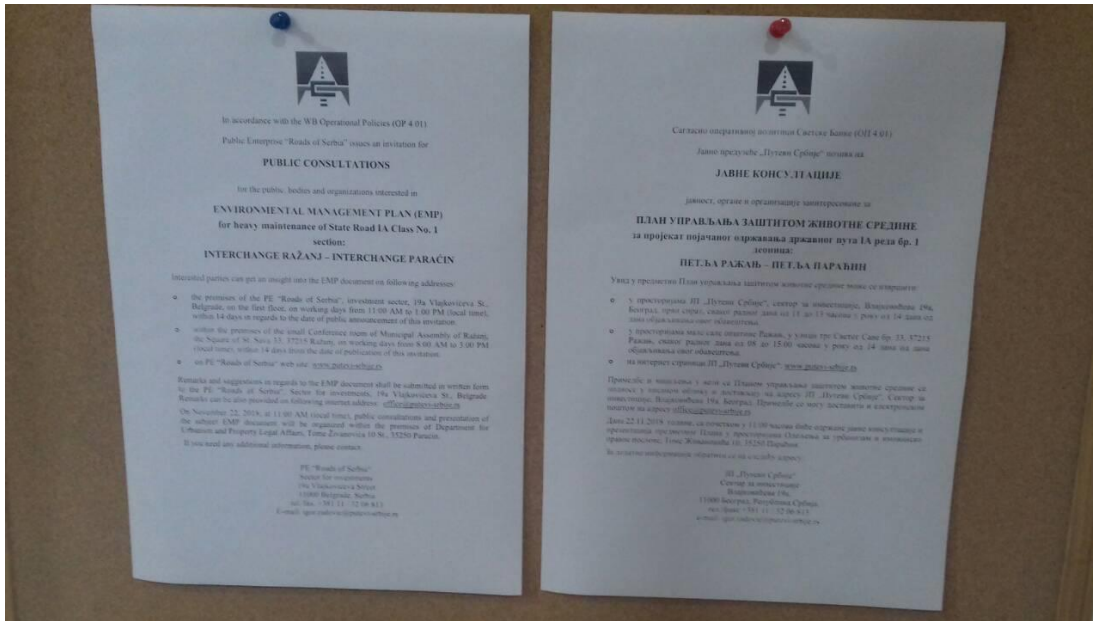


Figure 10. Notice of a Public Consultation Meeting Hung on the Bulletin Board in the Municipality of Razarj

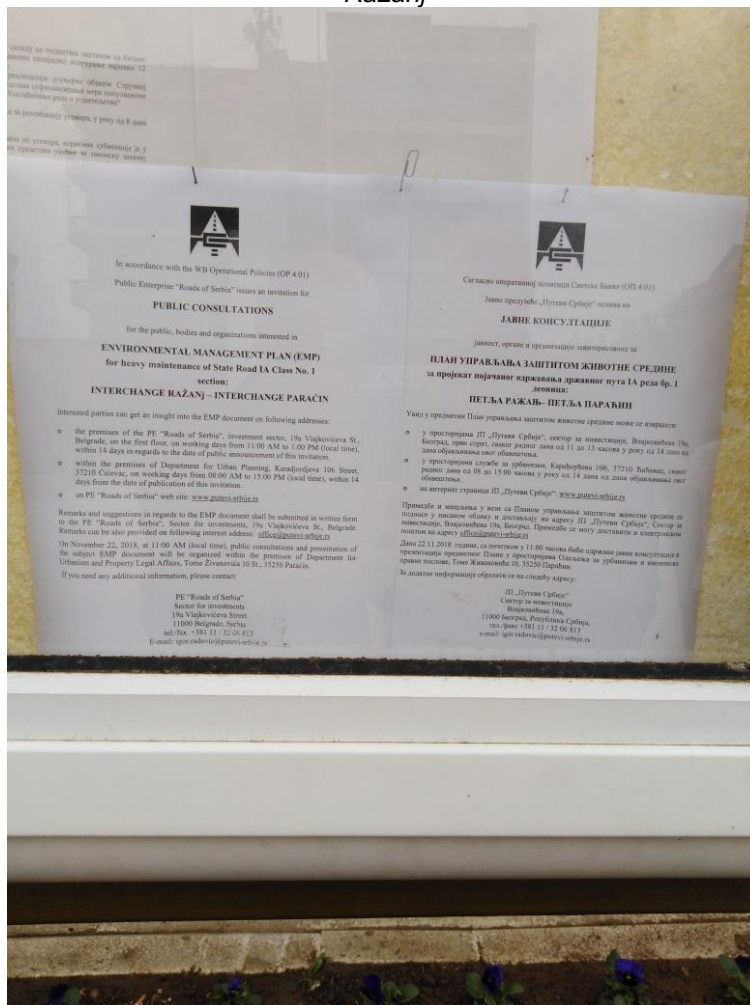


Figure 11. Notice of a Public Consultation Meeting Hung on the Bulletin Board in the Municipality of Cicevac

APPENDIX 6

CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS

РЕПУБЛИКА СРБИЈА
ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ СРБИЈЕ
 НОВИ БЕОГРАД, Др Ивана Рибара бр. 91
 Тел: +381 11/2093-802; 2093-803
 Факс: + 381 11/2093-867

VII
 ЈАВНО ПРЕДУЗЕЋЕ „ПУТЕВИ СРБИЈЕ“
 Бр. 953-17218/17-1
 Датум 06-09-2017
 БЕОГРАД, Булевар краља Александра бр. 282

Завод за заштиту природе Србије, Београд, Ул. др Ивана Рибара бр. 91, на основу члана 9. Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010 – исправка и 14/2016) и члана 136. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), поступајући по захтеву П Бр. 953-17218 Јавног предузећа „Путеви Србије“ из Београда, Булевар краља Александра 282, за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Параћин, дана 05-09. 2017. године под 03 бр. 020-2000/ 3 доноси

РЕШЕЊЕ

1. Предметно подручје (деоница пута) се не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите, нити у обухвату простора еколошке мреже. Сходно томе, издају се следећи услови заштите природе:

- 1) Пројектом Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Параћин предвидети таква решења и мере који ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода у непосредном окружењу.
- 2) Предвидети све неопходне антиерозионе мере (биолошке, биотехничке и техничке) због заштите од клизишта, одрона и сл.
- 3) Дефинисати да се одводњавање саобраћајнице врши гравитационим отицањем површинских вода и по потреби изградњом отворених канала за прихват површинских вода.
- 4) За воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима мора се предвидети изградња таложника и сепаратора масти и уља. Пре упуштања у реципијент или канализацију, обавезна је контрола њиховог квалитета.
- 5) Као коловозни застор користити материјале који могу, са аспекта заштите, обезбедити смањење нивоа буке и вибрација и омогућити ефикасно дренажање воде са површине коловоза.
- 6) Предметне радове на траси пута изводити само у току периода дана због могућег утицаја буке од грађевинских машина и возила.
- 7) При извођењу радова строго се придржавати трасе и коридора пута како се при манипулацији возилима и машинама не би оставиле последице на шири простор. Такође, користити постојећу путну мрежу без изградње нових путева, у циљу спречавања фрагментације простора и постојећих станишта.
- 8) Током извођења радова дуж целе трасе одржавати максимални ниво комуналне хигијене.
- 9) Предвидети све неопходне превентивне мере ради спречавања акцидентних ситуација, као и одговарајуће активности уколико до њих дође, уз обавезу обавештавања надлежних инспекцијских служби.
- 10) Уколико дође до хаваријског изливања горива, уља/мазива и других штетних материја обавезна је санација површине и враћање у првобитно стање.
- 11) Саставни део предметног Пројекта треба да буде и део који се односи на организацију радилишта, при чему је неопходно дефинисати и обезбедити:

- привремене локације за складиштење потребног грађевинског и другог материјала и опреме, које је неопходно лоцирати ван простора са високом вегетацијом, као и плавних зона река, и ограничити искључиво на време трајања радова;
 - привремене или трајне локације (постојеће уређене комуналне објекте/депоније) за одлагање и депоновање шута и другог отпадног грађевинског материјала у било каквом стању, као и комуналног отпада насталог у току извођења радова, односно забрану њиховог одлагања/депоновања у приобаљу већих река и мањих водотокова повремениг карактера, као и пољопривредном земљишту, осим на локацијама дефинисаним Пројектом;
 - предвидети да се након завршетка предметних радова све површине које су на било који начин деградиране грађевинским и другим радовима, што пре санирају.
- 12) По изведеним грађевинским радовима неопходно је што пре уклонити сву механизацију, грађевински материјал и друго.
- 13) Уколико је дошло до нарушавања предметног подручја (терена дуж трасе) треба га санирати. У том смислу, успоставити биљни покривач (култивисати терен) на свим угроженим местима, применом одговарајуће флоре и врста које су биолошки постојане у датим климатским условима, отпорније на штетне утицаје (издувне гасове и сл.), као и да је избор врста усклађен са околним простором и његовом наменом.
- 14) Приликом одабиру врста, избегавати оне које су за наше поднебље препознате као инвазивне: *Acer negundo* (јасенолисни јавор или негундовац), *Amorpha fruticosa* (багремац), *Robinia pseudoacacia* (багрем), *Ailanthus altissima* (кисело дрво), *Fraxinus americana* (амерички јасен), *Fraxinus pennsylvanica* (пенсилвански јасен), *Celtis occidentalis* (амерички копривић), *Ulmus pumila* (ситнолисни или сибирски брест), *Prunus padus* (сремза) и *Prunus serotina* (касна сремза), као и врсте које су детерминисане као алергене (тополе и сл.).
- 15) Уколико се током радова наиђе на геолошко-палеонтолошке или минералогско-петролошке објекте, за које се претпоставља да имају својство природног добра, извођач радова је дужан да у року од осам дана обавести министарство заштите животне средине, односно предузме све мере како се природно добро не би оштетило до доласка овлашћеног лица.
2. Ово Решење не ослобађа подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима.
3. За све друге радове/активности на предметном подручју, потребно је Заводу за заштиту природе Србије поднети нови захтев.
4. Уколико подносилац захтева у року од две године од дана достављања овог Решења не отпочне радове и активности за које је ово Решење о условима заштите природе издато, дужан је да од Завода прибави ново решење о условима.
5. Такса за издавање овог Решења у износу од 30.000,00 динара је одређена у складу са чланом 2. став 5. тачка 1. Правилника о висини и начину обрачуна и наплате таксе за издавање акта о условима заштите („Службени гласник РС“, бр. 73/2011, 106/2013). Подносилац захтева је дужан да наведену таксу уплати у корист рачуна Завода у року од 5 дана од дана достављања предрачуна.

Образложење

Завод за заштиту природе Србије примио је дана 21.08.2017. године захтев бр. 020-2000/1 Јавног предузећа „Путеви Србије“ из Београда за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IА реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Параћин.

На основу достављеног захтева и пратеће документације подносиоца захтева, утврђено је да је наведени Пројекат део Пројекта рехабилитације путева и унапређења безбедности саобраћаја на мрежи државних путева, који је подршка међународних финансијских институција Националном програму рехабилитације државних путева Републике Србије.

Врста радова која се планира, углавном обухвата радове ојачања постојеће коловозне конструкције (на појединим местима до дубине од 50-60 см од постојећег коловоза), у постојећим габаритима коловозне конструкције са постојећим и санираним системом одводњавања, уз пројектовање свих елемената који продужавају трајност радова и унапређују систем безбедности саобраћаја и у потпуности је регулисана одредбама (чл. 57-60) Закона о јавним путевима („Службени гласник РС“, бр. 101/05, 123/07, 93/12 и 104/13).

Увидом у Централни регистар заштићених природних добара и документацију Завода за заштиту природе Србије, а у складу са прописима који регулишу област заштите природе, утврђени су услови заштите природе из диспозитива овог Решења. При томе се имало у виду да се предметно подручје (траса пута) не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите, нити у обухвату простора еколошке мреже.

Законски основ за доношење решења је Закон о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010 -- исправка и 14/2016).

Предметни радови могу се реализовати под условима дефинисаним овим Решењем, јер је процењено да неће угрозити природне вредности подручја.

На основу свега наведеног, одлучено је као у диспозитиву овог Решења.

Подносилац захтева је ослобођен од плаћања таксе у складу са чланом 18. Закона о републичким административним таксама („Службени гласник РС“, бр. 43/2003, 51/2003, 61/2005, 5/2009, 54/2009, 50/2011, 93/2012, 83/2015, 112/2015, 50/2016 и 61/2017).

Упутство о правном средству: Против овог решења може се изјавити жалба Министарству заштите животне средине у року од 15 дана од дана пријема решења. Жалба се предаје Заводу за заштиту природе Србије.

ДИРЕКТОР

Александар Драгишић

Достављено:
- Подносиоцу захтева
- Архиви х 2

РЕПУБЛИКА СРБИЈА
ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ СРБИЈЕ
 НОВИ БЕОГРАД, Др Ивана Рибара бр. 91
 Тел: +381 11/2093-802; 2093-803;
 Факс: +381 11/2093-867

VI
ЈАВНО ПРЕДУЗЕЋЕ ПУТЕВИ СРБИЈЕ
 Бр. 953-14878/18-1
 Датум: 18-07-2018
 БЕОГРАД, Булевар Краља Александра бр. 223

Завод за заштиту природе Србије, Београд, Ул. др Ивана Рибара бр. 91, на основу члана 144. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), а поступајући по предлогу П број: 953-14878 од 05.07.2018. године ЈП „Путеви Србије“ из Београда, Бул. Краља Александра 282, за исправљање грешке у Решењу 03 бр. 020-2000/3 од 05.09.2017. године, дана 17.07 2018. године, под 03 бр. 020-2000/3 доноси

РЕШЕЊЕ

1. У Решењу 03 бр. 020-2000/3 од 05.09.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут E75), деоница петља Ражањ – петља Параћин, исправља се грешка, и то:

- тачка 1. подтачка 4) се мења, тако да сада гласи:

„За воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима предвидети изградњу таложника и сепаратора масти и уља, уколико се Планом управљања животном средином утврди/процени да ће просечни годишњи дневни саобраћај негативно утицати на квалитет воде водотокова са којима се предметни државни пут укршта или паралелно води, односно да ће бити нарушене граничне вредности које су дефинисане Уредбом о граничним вредностима емисије загађујућих материја у воде и роковима за њихово достизање („Службени гласник РС“, бр. 67/2011, 48/2012 и 1/2016) и Уредбом о граничним вредностима загађујућих материја у површинским и подземним водама и седименту и роковима за њихово достизање („Службени гласник РС“, бр. 50/2012).“

2. У свему осталом предметно Решење остаје непромењено.

3. Ово решење почиње да производи правна дејства од када и Решење које се исправља.

Образложење

Завод за заштиту природе Србије примио је дана 06.07.2018. године захтев заведен под бр. 020-2000/4 ЈП „Путеви Србије“ из Београда за исправљање грешке у Решењу Завода 03 бр. 020-2000/3 од 05.09.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут E75), деоница петља Ражањ – петља Параћин.

У току писања наведеног решења у тачки 1. подтачка 4) диспозитива направљена је очигледна грешка прописивањем мера које се односе на обавезно прикупљање воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима и њихово пречишћавање изградњом таложника и сепаратора масти и уља, а пре испуштања у реципијент или канализацију.

Будући да прописани услов не разматра функционалну везу између величине саобраћајног оптерећења, као емитера загађујућих материја, и количину загађујућих материја коју тај саобраћај емитује, нити помиње граничне вредности загађујућих материја које су дефинисане Уредбом о граничним вредностима емисије загађујућих материја у воде и роковима за њихово достизање („Службени гласник РС“, бр. 67/2011, 48/2012 и 1/2016), наведену и описану грешку у писању Решења је требало исправити.

Упутство о правном средству: Против овог решења може се изјавити жалба Министарству заштите животне средине у року од 15 дана од дана пријема решења. Жалба се предаје Заводу за заштиту природе Србије.

ДИРЕКТОР
Александар Драгишић



Достављено:
- Подносиоцу захтева
- Архива x 2

ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ
 КУЛТУРНО-ИСТОРИЈСКИ НАСЛЕЂЕ

Број: 1098-02/11

Датум: 22.09.2017

Завод за заштиту споменика културе Крагујевац, на основу члана 27, 99. став 2, тачка 1, 100. став 1. и 104. Закона о културним добрима („Сл. Гл. РС” бр. 71/94) и члана 104. Закона о општем управном поступку (“Службени гласник РС” бр.18/2016), а на захтев предузећа **Јавно Предузеће „ПУТЕВИ СРБИЈЕ“**, Булевар краља Александра 282, 11050 Београд 22, Сектор за инвестиције, Влајковићева 19а, Београд, дана 22.09.2017. год, доноси :

РЕШЕЊЕ

Београд, 05.10.2017

Београд

I Услови и мере техничке заштите, за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр.1 (аутопут Е-75), деоница петља Ражањ – Параћин (закључно са местом Дреновац, као крајње тачке надлежности Завода за заштиту споменика културе Крагујевац),

У близини достављених граница наведеног подручја налази се:

- регистровани археолошки локалитет **Слатина, Турска чесма – Дреновац**. Локалитет је смештен са леве стране ауто-пута Београд-Ниш, на благој коси која се спушта ка моравској тераси. Налази датовани у неолитски период.

Мере заштите археолошког локалитета:

1. На археолошком локалитету **обавезно је присуство стручњака надлежног Завода приликом извођења свих земљаних радова.**
2. Трошкови надзора над извођењем радова падају на терет инвеститора.
3. Инвеститор је дужан да обавести Завод за заштиту споменика културе у Крагујевцу 15 дана пре почетка планираних радова.
4. Уколико се током земљаних радова наиђе на археолошк материјал трошкови археолошких истраживања, конзервације откривених налаза, заштите и чувања евентуалних непокретних археолошких остатака падају на терет инвеститора, под условима које прописује надлежни Завод за заштиту споменика културе.
5. На осталом простору је обавезно поштовање чл. 109. Закона о културним добрима (Сл. гласник РС бр. 71/94) који гласи:

"Ако се у току извођења радова наиђе на археолошка налазишта или археолошке предмете, извођач радова је дужан да одмах, без одлагања, прекине радове и обавести надлежан Завод за заштиту споменика културе 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"

II. Пројекат и документација морају бити израђени у свему у складу са издатим условима из тачке I овог решења.

III. По изради пројекта и документације у складу са овим условима, подносилац захтева је дужан да на исте прибави сагласност Завода за заштиту споменика културе у Крагујевцу.

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

V. Ово решење важи годину дана од дана издавања.

VI. Жалба не одлаже извршење овог решења.

Образложење

Дана 25.08.2017. год. Заводу за заштиту споменика културе Крагујевац достављен је захтев број 953-17220 од 18.08.2017.године (заведено у Заводу под бр.1098-02 од 25.08.2017.год.) предузећа *Јавно Предузеће „ПУТЕВИ СРБИЈЕ“*, Булевар краља Александра 282, 11050 Београд 22, Сектор за инвестиције, Влајковићева 19а, Београд. Захтевом се траже услови потребни за израду техничке документације, Главни пројекат, који обухвата радове ојачања постојеће коловозне конструкције, (на појединим местима до дубине 50-60 цм од постојећег коловоза),у постојећим габаритима коловозне конструкције са постојећим и санираним системом одводњавања.

Почетак деонице је Ражањ на Е-75 а крај деонице је петља Параћин на Е-75. На основу свега наведеног решено је као у диспозитиву.

ПРАВНА ПОУКА: Против овог решења дозвољена је жалба Републичком заводу за заштиту споменика културе, Београд у року од 15 дана од дана његовог достављања. Жалба не задржава извршење овог решења.

Обрадили:

Александра Стефановић, дипл. ист. уметности

Зоран Јаглић, дипл.инж.арх

Славица Ђорђевић, дипл.археолог

Јелена Муњић, дипл.етнолог – антрополог

Предраг Вукашиновић, дипл. правник

ДИРЕКТОР

Марко Грковић

ДОСТАВИТИ

-подносиоцу захтева

-архиви завода

-досијеу



Републички завод за заштиту споменика културе - Београд
Institute for the Protection of Cultural Monuments of Serbia - Belgrade

Радослава Грујића 11 Radoslava Grujića 11
11118 Београд 11118 Belgrade
Србија Serbia
Тел. (011) 24 54 786 Phone +381 11 24 54 786
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e-mail: office@yuh heritage.com

Датум / Date:
Број / Ref.
мђ/мђ

24-08-2017

2/1760

ЈАВНО ПРЕДУЗЕЋЕ „ПУТЕВИ СРБИЈЕ“

Број 55-17220/17-1

Датум 25-08-2017

Београд, Београд, ул. Радослава Грујића бр. 11, 11118

ЈАВНО ПРЕДУЗЕЋЕ „ПУТЕВИ СРБИЈЕ“

Госпођа Гордана Суботицки Ђорђевић, извршни директор за инвестиције

Поштована госпођо Суботицки Ђорђевић,
Поводом Вашег захтева бр. П953-17220 од 18. августа 2017. године у вези издавања плана постојећих инсталација за израду техничке документације пројекта Појачаног одржавања деонице пута IА реда бр. 1 (аутопут Е-75), деоница Ражањ – петља Параћин, обавештавамо Вас да увидом у Централни регистар непокретних културних добара који води Републички завод за заштиту споменика културе – Београд је утврђено да на простору наведене деонице аутопута нема непокретних културних добара од изузетног значаја.

На катастарској општини Дреновац налази се истоимено археолошко налазиште са остацима праисторијских кућа из периода млађег неолита, које је делимично оштећено управо ранијом изградњом аутопута Е-75. Предлог одлуке о утврђивању археолошког налазишта Дреновац је у процесу доношења у Министарству културе и информисања РС. С тим у вези на катастарским парцелма бр. 94/1, 94/2, 96/1, 96/2, 97/1, 97/2, 98/1, 98/2, 99/1, 99/2, 100/1, 100/2, 101/1 и 101/2 КО Дреновац не може се вршити раскопавање, рушење, преправљање или било какви радови који могу да наруше својство културног добра.

Како наведена локација није у надлежности Републичког завода за заштиту споменика културе – Београд, допис прослеђујемо Заводу за заштиту споменика културе Крагујевац на даљи поступак.

С поштовањем,

Обрађивач Маја Ђорђевић, археолог

Maia Djordjevic

Директор

Мирјана Андрић

Mirjana Andric

Доставити:

- Наслову.
- Завод за заштиту споменика културе Крагујевац



Република Србија
МИНИСТАРСТВО ЗАШТИТЕ
ЖИВОТНЕ СРЕДИНЕ
Број: 011-00-00180/2018-03
Датум: 12.03.2018.
Београд

ЈП ПУТЕВИ СРБИЈЕ
Тим за имплементацију Пројекта
11 000 БЕОГРАД
Влајковићева 19а

Предмет: Допис у вези са захтевом

Министарству заштите животне средине обратили сте се Захтевом за давање мишљења о потреби израде студије о процени утицаја на животну средину пројекта појачаног одржавања и отклањања оштећења на државном путу IA1, деоница Алексинац 1 - Ражањ L=23,645 км и Ражањ 1-Параћин, L=24,781, заведен под бројем 011-00-00180/2018-03 од 06.03.2018.

У допису наводите да пројекат обухваћен и интегралним "Пројектом рехабилитације путева и безбедности саобраћаја (Road Rehabilitation and Safety Projekt – RRSP)" који се финансира из међународног кредита.

Пројекат подразумева грађевинско-путарске радове у оквиру трасе већ постојећег државног пута.

Уз Захтев је приложена и додатна документација:

- Правилник о ургентном одржавању државног пута („Сл. гласник РС“ 74/2014 и 87/2014), којим су дефинисане врсте радова, технички услови и начин извођења радова;
- Правилник о периодичном одржавању државног пута (на основу чл. 61 ст. 1 Закона о путевима,„Сл. гласник РС“ 101/05, 123/07, 101/11, 93/12 и 104/13)
- Кратак опис пројекта уз графички прилог;
- Решење бр. 020-1999/3 од 18.09.2017.и 2000/3 од 05.09.2017. које је издао Завод за заштиту природе Србије;
- Решење бр. 1098-02/1 од 22.09.2017. које је издао Завод за заштиту споменика културе Крагујевац;

- Решење бр. 2/1760 од 22.09.2017. које је издао Завод за заштиту споменика културе Београд;
- Решење бр. 115/2 од 29.08.2017. које је издао Завод за заштиту споменика културе Ниш;
- Пуномоћје бр. 953-1827 од 23.01.2018. за JV BOTEK Bosphorus Tehnical Consulting Corp. & МНМ –ПРОЈЕКТ doo Novi Sad, које је издало ЈП ПУТЕВИ СРБИЈЕ;

На основу члана 4. ст. 1. и 3. Закона о процени утицаја на животну средину („Сл. гласник РС“, 135/04 и 36/09) донета Уредба о утврђивању Листе пројеката за које је обавезна процена утицаја и Листе пројеката за које се може захтевати процена утицаја на животну средину („Сл. гласник РС“, 114/08), којом су утврђени пројекти за које се обавезно израђује процена утицаја-Листа I и пројекти за које се процењује значајан или могућ утицај на животну средину-Листа II.

Пројекат ургентног одржавања, рехабилитације и отклањања оштећења на путевима не налази се на прописаним Листама и, сагласно томе, *носилац пројекта није у обавези да уђе у процедуру процене утицаја, у складу са Законом о процени утицаја на животну средину* („Сл. гласник РС“ 135/04 и 36/09).

**Помоћник министра**
По решењу о овлашћењу
бр. 021-01-5/4/2017-09 од 11.12.2017.
Александар Весић

Доставити:

- наслову
- JV BOTEK Bosphorus Technical Consulting Corp,
211 000 Нови Сад, Јована Поповића 40 ✓
- архиви



Јавно водопривредно предузеће „Србијаводе“ Београд
 Водопривредни центар „Сава - Дунав“
 11070 Нови Београд, Бродарска 3; www.srbijavode.rs, vpcsavadunav@srbijavode.rs;
 Текући рачун: 200-2402180101045-97; ПИБ: 100283824; Матични број: 17117106;
 Наменски рачун трезора: 840-78723-57; ЈБКЈС: 81448; Телефон: 011/201-81-00, 311-
 43-25; Факс: 011/311-29-27

Број: 1885 /1

Датум: 16 MAR 2018

**JV BOTEK
 МНМ-ПРОЈЕКТ D.O.O.**

НОВИ САД
 Јована Поповића бр.40

ПРЕДМЕТ: Мишљење у вези извођења радова на рехабилитацији и појачаном одржавању – побољшању државног пута, ПА1-186, деоница РАЖАЊ 1- ПАРАЋИН 1

Решавајући по Захтеву **ПРОЈЕКТ JV BOTEK „МНМ-ПРОЈЕКТ D.O.O.NOVI SAD**, број 11-230218/4 од 23.02.2018. године,(наш број 1885 од 06.03.2018.) ЈВП „Србијаводе“, ВПЦ Морава“Ниш, даје услове у склопу мишљења за извођење радова на рехабилитацији и појачаном одржавању државног пута **ПА1-186, деоница РАЖАЊ 1- ПАРАЋИН 1.**

ЈВП „Србијаводе“ је сагласно да се приликом извођења радова на рехабилитацији пута могу користити парцеле на водном земљишту у јавној својини РС, којима управља ЈВП „Србијаводе“, уз испуњење следећих услова:

1. Све радове који се изводе у кориту водотока на траси пута треба извести у периоду малих вода и по завршеним радовима вратити у првобитно стање.
2. Радови у кориту потока не смеју да негативно утичу на водне објекте и режим вода. За време извођења радова не сме се депоновати материјал у кориту водотока, а по завршетку радова сав евентуално заостали материјал, уклонити ван корита водотока, терен испланирати, а евентуално оштећене водне објекте довести у првобитно функционално и безбедно стање.
3. Радовима на рехабилитацији пропуста не сме се погоршавати постојећи степен заштите од поплава. Наведени објекти лоцирани су преко водотока другог реда, (осим моста преко нерегулисаног корита Јовановачке реке, која је водоток I реда, али није у оперативном плану одбране од поплава), тако да се одбрана од поплава спроводи према Оперативном плану који доноси јединица локалне самоуправе, у чијој је надлежности и одржавање водних објеката на предметним водотоцима. Обавеза инвеститора је да у оквиру Оперативног плана за одбрану од поплава предвиди мере и средства за додатну заштиту приобаља у зони успора који се јавља због недовољне пропусне способности пропуста.
4. Приликом извођења радова на рехабилитацији и појачаног одржавања саобраћајнице мостова, пропуста и напутњака на предметним водотоцима, потребно је све постојеће и нове инсталације заштитити и поставити изнад коте меродавне велике, односно изнад доње ивице конструкције пропуста, како не би биле препрека услед наиласка великих вода.
5. Инвеститор је у обавези да благовремено пријави почетак радова ЈВП „Србијаводе“ ВПЦ „Морава“, Ниш као и да се у свему придржава наведених услова и Техничке документације на рехабилитацији и појачаном одржавању – побољшању локалног пута, на деоници Буковац-Пањевац.

Напомене:

Законом о водама („Службени гласник РС“ број 30/2010, 93/2012 и 101/2016) је утврђено да се водни услови за изградњу и реконструкцију путева и мостова се издају у обједињеној процедури, у поступку издавања грађевинске дозволе.

За ове објекте и радове није предвиђено издавање водне сагласности, већ се испуњеност водних услова проверава техничком контролом пројекта за грађевинску дозволу, у складу са чланом 129. Закона о планирању и изградњи.

За извођење радова на рехабилитацији и појачаном одржавању путева, који се врше у складу са чланом 59. Закона о јавним путевима, није предвиђено издавање водних услова и сагласности.

Доставити:

- *Подносиоцу захтева*
- *Водна књига*
- *Архива*

ЈВП „СРБИЈА ВОДЕ“, БЕОГРАД
ВФЦ „МОРАВА“, НИШ

Г-р Драгољуб Миљојковић дипл.инж

