ROAD REHABILITATION AND SAFETY PROJECT

MAIN DESIGN FOR HEAVY MAINTENANCE OF THE STATE ROAD IA1

LOT 2: IA1, section: Interchange Ražanj - Interchange Aleksinac, from km 385+067 to km 408+712,

L=23.645km,

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

ENVIRONMENTAL MANAGEMENT PLAN

Final

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1. CONTENT

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
MoCETI	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

Environmental management plan was prepared within Road rehabilitation and safety project, for suggested heavy maintenance of State Road IA class, No. 1 section: Ražanj – Aleksinac 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.

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 highlight the 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 the 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 the types of allowed constructive and traffic measures.

For the suggested section, the Environmental Management Plan is focused on urgent maintenance and eliminating damages and it is a part of corresponding construction works contract. The activities connected to the regular section maintenance, even though they are not brought into focus of this plan, will be included in short in order to make the plan complete. Preparation for the development of EMP was performed through theoretical studies and site research, including the consultations with the representatives at the regional level and local authorities.The EMP was mainly based on the site research conducted during April and May 2018.

SUMMARY

Project description

Road Rehabilitation and Safety Project (RRSP) is the project in which IFIs (World Bank, European Investment Bank and European Bank for Reconstruction and Development) provide support to the Government of the Republic of Serbia in implementing the National Program for State Road Network Rehabilitation. This project represents the realization of the 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 Ražanj – Interchange Aleksinac.

Location description

The subject section belongs to the Nišava Administrative District. Section Aleksinac-Ražanj in the length of 25,373 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 Horgoš) and the southern part of Serbia, i.e. with the country border with Macedonia (border crossing Preševo). Also, the subject section is a part of the Project envisaged for heavy maintenance within the Third and Fourth 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 envisaged by this project will be completed within the existing road zone to the extent that the existing road zone 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.

Rehabilitation works description

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

The type of works planned mainly involves the reinforcement of the existing pavement structure (in some places up to a depth of 50-60 cm from the existing carriageway), within the boundaries of the road zone. Works on the improvement of the existing drainage system and all related elements are foreseen. The works include design of all elements that prolong the durability of done works and improve the system of traffic safety. They are completely regulated by the provision (Article 69) of the Law on Roads ("Official Gazette of RS", No. 41/2018).[1]

In accordance with the Terms of Reference and the site visits, the design will foresee the construction of appropriate solutions for rehabilitation and development of the structures in the road base. The width of 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 Natural Monuments of Niš and the Public Enterprise “Roads of Serbia” (PERS).

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

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 protection procedure has been performed or

[1] https://www.paragraf.rs/propisi/zakon-o-putevima.html

initiated. Therefore, the project holder is **not required to make the Environmental Impact Assessment** (Appendix 6).

Lender requirements will also apply to this project and include the following Environmental Policies:

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

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

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 55 culverts on the section (18 slab, 25 pipe, 6 arched, 1 combined, 1 slab pedestrian culvert and 4 culverts of unknown shape), 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:

- Ražanj Creek Viaduct at km 386+425
- Ražanj Viaduct at km 388+163
- The Bridge over the Rujška River at km 392+249
- The Bridge over Drenovački Creek at km 394+029
- The Bridge over Suvi Creek at km 396+525
- The Bridge over Rutevački Creek at km 398+480
- The Bridge over the Moravica River at km 407+758

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

- Overpass across local road at km 385+949
- The bridge over the road Đunis – Ražanj at km 389+947
- Overpass intersection Deligrad at km 393+248
- Overpass at km 394+182
- Overpass at km 405+110
- Overpass at km 405+460
- Overpass at km 407+625

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 Ražanj - Aleksinac). Concerning the longest part of the carriageway, ditches are neatly maintained and covered with grass.

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

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

The main role of these channels is to lead runoff from the carriageway to the closest culvert. Generally, channels 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 Niš (No. 1015/2 from Avgust 28th, 2017), no archaeological resources are registered.

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.

The Institute for Nature Conservation of Serbia (03 No. 020-1999/3 from September 18th, 2017; amendment solution 03 No. 020-1999/5 from July 19th, 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.

There are two petrol stations along the observed section:

- Petrol station „OMV“ at km 390+100
- Petrol station „Lukoil“ at km 408+650

Figure 2. Petrol station on the subject section

Current traffic load (AADT) for the road section 1092 is 15427 vehicles per day, while for the section 1094 is 15814 vehicles per day in 2017.[2]

Summary of environmental impacts

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

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

EMP refers to the phase of the execution of works and their implementation is a future obligation of the Contractor. During the execution of construction activities, there may be disturbances in the traffic flow, movement of the inhabitants of the surrounding settlements, reduced traffic safety, damages on the access roads, noise production, dust, waste and air pollution, impact on soil, water, plant and animal life. The works which are performed outside the location of the building site, such as quarries, asphalt bases and borrow pits can cause local negative impacts. Therefore, it is necessary to manage those works properly.

Environmental Management Plan

Environmental impacts of the project for heavy maintenance on the section Interchange Ražanj - Interchange Aleksinac 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.

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

PE "Roads of Serbia" is in charge of designing, supervision and the execution of works applying 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, Institute for Protection of Cultural

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

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

Monitoring plan (observing the impacts)

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

- Defining the environmental elements that need to be followed and the manner in which they should be followed
- Special areas, locations and parameters that need to be monitored;
- Application of valid standards and criteria;
- Monitoring noise levels near populated areas;
- Monitoring material supply (verification of valid licenses);
- Duration, frequency and evaluation of monitoring costs, and
- Institutional responsibility for monitoring and supervision.

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

Stakeholder engagement –information disclosure, consultation and participation of public

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

All the 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 Aleksinac („Official Gazette of the municipality of Aleksinac“, No. 4/11)
- General Regulation Plan of Aleksinac („Official Gazette of the municipality of Aleksinac“, No. 6/14)
- Spatial plan of the municipality of Ražanj („Official Gazette of the municipality of Ražanj“, No. 4/2012)
- General Regulation Plan of Ražanj („Official Gazette of the municipality of Ražanj“, No. 11/2012)

- The first amendment to the General Regulation Plan of Ražanj („Official Gazette of the municipality of Ražanj“, 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 the Security Council. EMP and other information connected to the project were presented to public on October 18th, 2018 in Municipality Ražanj. The entire documentation was delivered to the municipalities, published on the website, placed on the PERS internet presentation and published in the media.

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

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

The grievance mechanism will be established in order to properly consider all the grievances of the local societies, apply the corrective measures and inform the grieving party about the results. This is to be applied to all types of grievances. Grievance form is in Appendix 4, and the printed versions will be available in the local community centers.

2. 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 Ražanj – Interchange Aleksinac.

Section description

The subject section belongs to the Nišava Administrative District. Section Aleksinac-Ražanj in the length of 25,373 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 Horgoš) and the southern part of Serbia, i.e. with the country border with Macedonia (border crossing Preševo). 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 label	Label of the initial	Label of the final	Name of the initial node	Name of the final node	Length of the section

	section*		node	node			(km)
1		1094	147	146	Aleksinac	Aleksinački Rudnik	4.973 3.245 (**)
2		1092	146	145	Aleksinački Rudnik	Ražanj	20.400 20.400 (**)
						Total :	**25.373** **(**23.645)**

* *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 given section belongs to the state road of IA class no.1 (country's border with Hungary (border crossing Horgoš) - Novi Sad - Belgrade - Niš - Vranje - country's border with Macedonia (border crossing Preševo)).

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

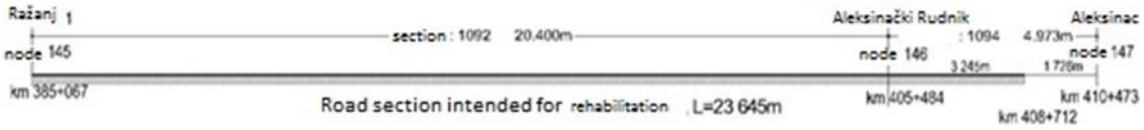


Figure 4. The length of the road section intended for rehabilitation (heavy maintenance)

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 was defined at the chainage of km 408+712 (the node 033 Aleksinac 1 according to the reference system in 2008) (Figure 5), and the end was defined at the chainage of km 385+067 at the node 0145, intersection Ražanj (the node 031 Ražanj 1 according to the reference system in 2008) (Figure 6).

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 Ražanj - Interchange Aleksinac, L = 23,645 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 Ražanj – Interchange Aleksinac	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 channels, channels with concrete bottom, drain flumes or channels 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 channels, concrete channels, 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.

Considering the fact that current traffic load (AADT) for the section 1092 is 15427 vehicles per day, while the ADDT for the section 1094 is 15814 vehicles per day in 2017, 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).

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.

3. 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 55 culverts on the section (18 slab, 25 pipe, 6 arched, 1 combined, 1 slab pedestrian culvert and 4 culverts of unknown shape), 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:

- Ražanj Creek Viaduct at km 386+425
- Ražanj Viaduct at km 388+163
- The Bridge over the Rujška River at km 392+249
- The Bridge over Drenovački Creek at km 394+029
- The Bridge over Suvi Creek at km 396+525
- The Bridge over Rutevački Creek at km 398+480
- The Bridge over the Moravica River at km 407+758

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:

- Overpass across local road at km 385+949
- The bridge over the road Đunis – Ražanj at km 389+947
- Overpass intersection Deligrad at km 393+248
- Overpass at km 394+182
- Overpass at km 405+110
- Overpass at km 405+460
- Overpass at km 407+625

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 Ražanj - Aleksinac). 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 channels on the left side of the carriageway were indicated.

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

Figure 9. Concrete channels 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 channels 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 ruonff 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 channels, gullies or direct discharge into the final recipients.

Figure 10. Gutters on the subject section

There are not archaeological sites regarding the monuments of culture and protected resources on the section, according to the data from the conditions of the Institute for the Protection of Cultural Monuments of Niš (No. 1015/2 from September 29th, 2017).

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.

There are two petrol stations along the subject section. Their chainages are:

- Petrol station “OMV“ at km 390+100 (Figure 11. Petrol station “OMV“ at km 390+100)
- Petrol station "Lukoil" at km 408+650 (Figure 12)

Figure 11. Petrol station “OMV“ at km 390+100

Figure 12. Petrol station "Lukoil" at km 408+650

Settlements

The municipality of Ražanj is located in southeastern Serbia and belongs to the Nišava district. It covers an area of 289 square kilometers and borders with the municipalities of Aleksinac, Sokobanja, Kruševac, Paraćin, Ćićevac and Boljevac. Mountain Bukovik is located in the northeast and fold Mečka is in the north of Ražanj. This municipality is at the intersection of Velika and Južna Morava and Carpathian and Balkan part of Serbia. It consists of 23 settlements: Braljina, Varoš, Vitoševac, Grabovo, Lipovac, Mađere, Maletina, Maćija, Novi Bračin, Pardik, Podgorac, Pretrkovac, Poslon, Praskovče, Ražanj, Rujište, Skorica, Smilovac, Stari Bračin, Cerovo, Crni Kao, Čubura and Šetk. 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 Ražanj and they connect it with neighboring municipalities and Belgrade-Niš highway. To the west of Ražanj, regarding Belgrade-Niš railway, there are railway stations Đunis and Braljin, which are 10 km away from the settlement. Ražanj is 55 km away from Niš.

The Municipality of Aleksinac is located in Southeast Serbia and belongs to the Nišava District. It is located on the borders of Kruševac, Niš and Sokobanja and covers an area of 707 square kilometers. Furthermore, 65% is related to arable land while the other 35% is related to mountainous area. Aleksinac borders with the municipality of Ražanj in the north, Sokobanja in the northeast, the municipality of Merošina and Niš in the south, the municipality of Crveni Krst, Svrljig in the southeast and Kruševac in the west. The municipality of Aleksinac consists of settlements: Aleksinac (since 1955 includes the settlement Konjska Poljana), Aleksinački Bujmir (until 1950 included the settlement Bujmir), Aleksinački Rudnik, Bankovac, Beli Breg, Belja, Bobovište, Bovan, Bradarac, Vakup, Veliki Drenovac, Vitkovac, Vrelo, Vrćenovica, Vukanja, Vukašinovac, Glogovica, Golešnica, Gornja Peščanica, Gornje Suhotno, Gornji Adrovac, Gornji Krupac, Gornji LJubeš, Gredetin, Grejač, Dašnica, Deligrad, Dobrujevac, Donja Peščanica, Donje Suhotno, Donji Adrovac, Donji Krupac, Donji LJubeš, Draževac, Žitkovac, Jakovlje, Jasenje, Kamenica, Katun, Koprivnica, Korman, Kraljevo, Krušje, Kulina, Lipovac, Loznac, Loćika, Lužane, LJupten, Mali Drenovac, Mozgovo, Moravac, Moravski Bujmir, Nozrina, Porodin, Prekonozi, Prćilovica, Prugovac, Radevce, Rsovac, Rutevac, Srezovac, Stanci, Stublina, Subotinac, Tešica, Trnjane, Ćićina, Crna Bara, Česta, Čukurovac and Šurić.

The territory of Aleksinac municipality is between latitude 43°27' and 43°44' N latitude and longitude 21° 29' and 21° 56' E. The Turija, South Morava and Sokobanjska Moravica rivers build Bovan Lake in the village Bovna and al rivers flows through the municipality. The regional roads Kruševac-Niš and Aleksinac-Sokobanja, Belgrade-Niš highway, as well as Belgrade-Niš-Skopje-Thessaloniki railroads pass through the municipality.

The subject section goes through the following cadastral municipalities:

- MO Ražanj
- MO Poslon
- MO Jasenje
- MO Deligrad
- MO Vukašinovac
- MO Rutevac
- MO Ćićina
- MO Bobovište
- MO Kraljevo
- MO Aleksinac outside the settlement

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

- Ražanj
- Jasenje
- Deligrad
- Vukašinovac
- Rutevac
- Bobovište
- Aleksinački rudnik
- Aleksinac

Natural resources and cultural heritage

There are not archaeological sites regarding the monuments of culture and protected resources on the section, according to the data from the conditions of the Institute for the Protection of Cultural Monuments of Niš (No. 1015/2 from August 29th, 2017).

The following facilities were determined during the visit of subject section:

- Monument on the right side of the carriageway on the subject section at km 390+790 (Figure 13)
- Cemetery on the right side of the carriageway on the subject section at km 397+340 (Figure 14)
- Cemetery on the left side of the carriageway on the subject section at km 401+760 (Figure 15)

Figure 13. Monument on the right side of the carriageway on the subject section at km 390+790

Figure 14. Cemetery on the right side of the carriageway on the subject section at km 397+340

Figure 15. Cemetery on the left side of the carriageway on the subject section at km 401+760

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. 020-1999 / 3 dated from September 18th, 2017, amendments to decision 03 No. 020-1999 / 5 from July 19th, 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.

Watercourses

This section is intersected by watercourses at the following locations:

- Ražanj Creek Viaduct at km 386+425 (Figure 16)
- Ražanj Viaduct at km 388+163 (Figure 17)
- The Bridge over the Rujška River at km 392+249 (Figure 18)
- The Bridge over Drenovački Creek at km 394+029 (Figure 19)
- The Bridge over Suvi Creek at km 396+525 (Figure 20)
- The Bridge over Rutevački Creek at km 398+480 (Figure 21)
- The Bridge over the Moravica River at km 407+758 (Figure 22)

Figure 16. Ražanj Creek Viaduct at km 386+425

Figure 17. Ražanj Viaduct at km 388+163

Figure 18. The Bridge over Rujška River at km 392+249

Figure 19. The Bridge over Drenovački Creek at km 394+029

Figure 20. The Bridge over Suvi Creek at km 396+525

Figure 21. The Bridge over Rutevački Creek at km 398+480

Figure 22. The Bridge over the Moravica River at km 407+758

By amending originally issued conditions, the Institute for Nature Conservation of Serbia (No. 020-1999 / 5 dated from July 19th, 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 1092 is 15427 vehicles per day, while the ADDT for the section 1094 is 15814 vehicles per day in 2017, 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 55 culverts on the section (18 slab, 25 pipe, 6 arched, 1 combined, 1 slab pedestrian culvert and 4 culverts of unknown shape), as well as a certain number of abutment walls (different types and different dimensions).

Table 3. The list of recorded culverts on the subject section

No.	Chainage	Shape	Cross section	Material
1	385+366	Pipe	Ø1000mm	Concrete pipe
2	386+792	Pipe	Ø1000mm	Concrete pipe
3	388+810	Slab	L: H=3900mm B=5000mm D: H=4950mm	Concrete
4	388+932	?	1000mm	Concrete
5	389+456	Pipe	Ø1000mm	Concrete pipe
6	389+706		Ø1000mm	
7	390+078	Pipe	Ø1000mm	Concrete pipe
8	390+200	Pipe	Ø1000mm	Concrete pipe
9	391+140	Pipe	Ø1000mm	Concrete pipe
10	391+622	Slab	H=4000mm B=5000mm	Concrete
11	391+937	Pipe	Ø1000mm	Concrete pipe
12	392+435	Pipe	Ø1000mm	Concrete pipe
13	393+010	Pipe	Ø1000mm	Concrete pipe
14	393+189	Slab	H=1100mm B=1000mm	Concrete
15	393+541	Arched	H=1000mm	Concrete
16	394+384	Slab	H=750mm	Concrete

			B=1000mm	
17	394+824	Arched	H=1000mm	Concrete
18	395+516	Slab	H=4000mm B=4000mm	Concrete
19	396+114	Slab	H=1200mm B=1000mm	Concrete
20	397+055	Slab	H=1200mm B=1000mm	Concrete
21	397+310	Slab	H=1150mm B=1000mm	Concrete
22	397+918	Pipe	Ø1000mm	Concrete pipe
23	399+114	Slab	H=1350mm B=1000mm	Concrete
24	399+440	Slab	H=1350mm B=1000mm	Concrete
25	399+853	Pipe	Ø1000mm	Concrete pipe
26	400+128	Slab	H=1350mm B=1000mm	Concrete
27	400+352	Slab	H=1350mm B=1000mm	Concrete
28	400+641	Slab	H=3500mm B=4000mm	Concrete
29	401+044	Slab	H=B=1000mm	Concrete
30	401+404	Pipe	Ø1000mm	Concrete pipe
31	401+614	Slab	H=4000mm B=4000mm	Concrete
32	401+933	Pipe	Ø1000mm	Concrete pipe
33	402+203	Arched	H=3000mm B=4000mm	Concrete
34	402+500	Arched	H=1000mm B=900mm	Concrete
35	402+612	R: Arched	H=2100mm B=1500mm	Concrete
		Pipe	Ø1000mm	Concrete pipe
		L: Arched	H=2000mm B=1600mm	Concrete
36	403+201	Pipe	Ø1000mm	Concrete
37	403+348	?	1000mm	Concrete
38	403+710	Slab	H=1000mm B=1000mm	Concrete
39	404+216	Pipe	Ø1000mm	Concrete pipe
40	404+218	Slab	H=2100mm B=1500mm	Concrete
41	404+603	Pipe	Ø800mm	Concrete pipe
42	405+058	Pipe	Ø1000mm	Concrete pipe
43	405+164	Pipe	Ø1000mm	Concrete pipe
44	405+327	Pipe	Ø1000mm	Concrete pipe
45	405+503	Pipe	Ø1000mm	Concrete pipe
46	405+828	Pipe	Ø1000mm	Concrete pipe
47	405+877	Slab	Under water, inaccessible	Concrete
48	406+227	?	Under water and overgrown with vegetation, inaccessible	Concrete
49	406+441	Pipe	Ø1000mm	Concrete pipe
50	406+574	Arched	H=1000mm B=1000mm	Concrete
51	406+709	Pipe	Ø1000mm	Concrete pipe
52	407+053	Pipe	Ø1000mm	Concrete pipe

53	407+982	Arched	H=1000mm B=1000mm	Concrete
54	408+209	Slab pedestrian culvert	H=2050mm B=1500mm	Concrete
55	408+482	Pipe	Ø1000mm	Concrete pipe

Figure 23. Arched culvert at km 402+203

Figure 24. Slab culvert at km 391+622

Figure 25. Pipe culvert at km 374+858

Figure 26. Slab pedestrian culvert at km 408+209

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:

- Overpass across local road at km 385+949
- The bridge over the road Đunis – Ražanj at km 389+947 (Figure 27)
- Overpass intersection Deligrad at km 393+248 (Figure 28)

- Overpass at km 394+182 (Figure 29)
- Overpass at km 405+110 (Figure 30)
- Overpass at km 405+460 (Figure 31)
- Overpass at km 407+625 (Figure 32)

Figure 27. The bridge over the road Đunis – Ražanj at km 389+947

Figure 28. Overpass intersection Deligrad at km 393+248

Figure 29. Overpass at km 394+182

Figure 30. Overpass at km 405+110

Figure 31. Overpass at km 405+460

Figure 32. Overpass at km 407+625

Air

There are not current resources of air pollution within the observed section Interchange Ražanj - Interchange Aleksinac. The data on the values of air pollution which were measured on the observed corridor were not available.

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

Noise

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

4. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Relevant institutions

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

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

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

- Institute for Protection of Cultural Monuments of Niš No. 1015/2 dated from August 29th, 2017
- Institute for Nature Conservation of the Republic of Serbia 03, No. 020-1999/3 dated from September 18th, 2017
- Opinion of the Ministry of Environmental Protection, No. 011-00-00180/2018-03 dated from March 12th, 2018
- PWMC Srbijavode, WMC Sava-Danube No. 1885/2 dated from March 22nd, 2018
- Correction of conditions provided by Institute for Nature Conservation of Serbia 03 No. 020-1999/5 from July 19th, 2018.

Existing Serbian legislation

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

The Procedure of Environmental Impact Assessment in the Republic of Serbia

In the legal system of the Republic of Serbia, the procedure for environmental impact assessment is regulated by the Law on Environmental Impact Assessment (Official Gazette No. 135/2004, 36/2009), which is completely in accordance with the European Directive EIA - 85/337/EEC. According to this, the EIA study is not necessary for road rehabilitation projects, except for those sections which are located within or nearby protected natural and cultural areas. In this case the proposer of the design needs to submit to the relevant ministry the request for making a decision about the need for making the environmental impact assessment. Depending on the 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 elimination of road damages **are not** on the prescribed Lists of projects for which an impact assessment is required or for which an environmental impact assessment can be required (Official Gazette 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 be applied to all of the works:

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

EBRD and EIB request that the design should be made in correspodence with the laws of the Republic of Serbia and EU standards. However, the regulations of the Republic of Serbia do not provide the design for an EMP for this type of investment, while the World Bank guidelines require a partial Environmental Impact Assessment and EMP for each section.

5. SUMMARY OF ENVIRONMENTAL IMPACTS

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

Impact	Significance	Comment
Impacts on the use of land /settlements	Low	There will be no land expropriation during the implementation of the design according to OP 4.12.
underground and surface water	Low	Due to low amount of water that can come to the recipient by drainage, the consequential impact is minimal to negligible
air quality	Low	Temporary impact during the execution of works
flora and fauna (protected areas and species)	Low	Temporary impact during the execution of works
noise	Low	Temporary impact during the execution of works
access to/intersections of the main road and the local roads	Low	Rehabilitation won't have a negative impact on the existing intersections.
soil management	Low	With the application of appropriate measures of waste management
waste management	Low	According to the plan of waste and waste water management
cumulative impacts	Moderate / Low	Temporarily, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only

The works on road rehabilitation on the section Interchange Ražanj – Interchange Aleksinac 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.

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

Overview of Key Impacts

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

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

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

Noise and Air Pollution in Residential Areas

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

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 a location defined in the Law on Water ("Official Gazette RS", No. 30/2010, 93/2012 and 101/2016).

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 Ražanj – Interchange Aleksinac 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 Ražanj and Aleksinac should be done according to the Regional Waste Management Plan for the municipalities of Niš.[3]

[3] http://www.aleksinac.org/index.php/strategije-razvoja/regionalni-plan-upravljanja-otpadom

6. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the section Interchange Ražanj - Interchange Aleksinac 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 and the Institute for the Protection of Cultural Monuments of Niš), 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.

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 EMP conditions have been included into the bid price;
- The Contractor has a qualified and experienced person in a team who will be responsible for the environmental compliance requirements of the EMP.
- The Contractor and its sub-contractors will comply with Republic of Serbia national laws, EU standards and Lender requirements.

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 deposing 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 Niš region.[4]
- After the completion of the works, all areas that have been degraded in any way by road rehabilitation works must be rehabilitated as soon as possible (levelling and resoiling degraded surfaces up to the level and condition in which this area was found before the commencement of works);
- During the works, the planned road sections and corridors around it must be followed, so that the earthworks and machinery do not affect the surrounding areas.
- During the works on the road that is located in the immediate visinity of 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 (bridges over the Vapa and Kladnica rivers) 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, rehabiliated and reinstated;

[4] http://www.aleksinac.org/index.php/strategije-razvoja/regionalni-plan-upravljanja-otpadom

- The works must be performed only during the day from 7 am to 5 pm on the parts where the section is located in a populated area to minimize the impact of noise from local construction machines and vehicles;
- The installation of protective barriers, pedestrian crossings and passageways should be foreseen on places where it is useful, especially at locations near the existing settlements;
- Maintain the maximum level of communal hygiene throughout the works along the entire route. Define the locations for placement of containers for temporary disposal of waste 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 Niš region.[5]

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

[5] http://www.aleksinac.org/index.php/strategije-razvoja/regionalni-plan-upravljanja-otpadom

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.

- Sewerage 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

[6] http://www.aleksinac.org/index.php/strategije-razvoja/regionalni-plan-upravljanja-otpadom

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;
- 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 (the Kladnica and Vapa 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 them construction site. All construction sites and work areas will be rehabilitated, in order to be reinstated as much as possible. This includes stabilization and landscaping of all sites. In compliance with the Law on Environmental Protection (RS Official Gazette No 135/2004, 36/2009 – st.law, 72/2009 – st.law, 43/2011-CC decision and 14/2016), when the works are completed, waste must not remain on the construction site. If waste is not removed by the Contractor, PERS is entitled to withhold payment and organize cleaning of the area and then deduct the cleaning costs and administrative costs from the final payment.
- Plan of Environmental Grievances (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 reocurring on some locations, and marking them as “black spots”. Regular road maintenance consists of the following: grass mowing, cleaning the drainage system, road patching and various repairs and regular checks and maintenance of drainage structures. Seasonal maintenance, regular maintenance of safety characteristics and road signs shall be performed as needed. Primary road maintenance, which includes asphalting and major repairs, is usually planned for a period of a few years.

B. MONITORING PLAN (FOLLOWING THE IMPACTS)

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 were held on October 18th, 2018 and the report is presented within the Appendix 5.

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.

7. STAKEHOLDER ENGAGEMENT – INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

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

A detailed report on the public consultation process is shown in Appendix 5 to this document and contains a list of identified participants.

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

Before the 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.

8. 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.

9. 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, Institute for Cultural Monuments Protection of Niš and PWMC 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	The location must be approved by PERS. • It is forbidden to form the location (construction site) for temporary disposal i.e. storage of required construction and other material and storage, in the coastal zone of 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.	• minimum distance must be kept (buffer zone) between the site and the nearest populated area • influence of the local conditions must be taken into account (wind) to avoid or minimize harmful effects • the contractor's EMP defines health and safety and environmental measures • independent water and electricity supply, in addition to a medical service station with a trained employee on the construction site must be planned	Contractor	PERS	
	Safety of pedestrians and suitable crossings	According to the plan, a suitable pedestrian crossing must be provided, equipped with curb ramps that allow the use of wheelchairs, trolleys, bicycles and prams.	Main Design Designer	Technical control / PERS	
	Informing stakeholders	Details of the proposed road section, access points and safety features will be disclosed at the location of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered will be attached to the Main Design.	PERS/ Main Design Designer	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 to use PPE properly.	The Contractor's expert for H&S and environmental issues	Supervising authority	
	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: – 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 suppliier / 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	– 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	Measures to be introduces: – avoiding/reducing to a minimum dust emission, – wetting/ spraying the construction site – construction site access, – material landfills during loading / discharging activities – covering the vehicles which carry dusty materials; – spraying/cleaning wheels on the vehicles; – limiting the speed of movement for vehicles, – Cleaning the construction site.	Contractor	Supervising Authority	
	Vibrations	To limit activities to daylight working hours (without works between 08:00 pm and 07:00 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	– 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	– To organize and cover material storage areas; – To isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers; – Washing the trucks for concrete and asphalt, as well as washing other machinery is to be done exclusively in registered car washes – To organize the construction site so as to minimize the risk of generating sediments and accumulating waste water, which could cause pollution of the surrounding soil and water (consider situations such as drainage for atmospheric water, waste water collected from the structures on the construction site such as the structure for washing the wheels). – The Soil Management Plan must be prepared to control removal, storage and re-use of humus. – To use local controlled measures to prevent sediment flowing into surface water and drainage canals. Some of the measures include physical obstacles such as fences for sediments, checking barriers, mulch barriers, e.g. protective leaves cover, geotextile, rock groynes, and sediment basin), marking them in order to make the roadt slope optimal and the slope edges sharp (steep), – To prevent sediment flowing into surface water, slope of the soil and protection form wind erosion must also be considered, by installing fences, covers etc.	Contractor	Supervising Authority	

	Soil and water pollution from improper material storage, management and use	– To dispose waste material at a location protected from washing out, on a marked location, if not on the site, then on an authorized landfill (in order to choose location, use the Regional Waste Management Plan of Niš region[7]). – 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	
	Potential contamination of soil and water from improper maintenance and fueling of equipment	– 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	– provide workers with safety instructions and PPE – provide a safe alternative traffic flow	Contractor	Supervising Authority	
	soft/hard landscaping	– Take measures to gradually establish vegetation again by covering crops and natural endemic species and monitoring their effectiveness. – In places where the initial planting failed, plant replacements will be made. – Avoid invasive and allergenic species	Contractor	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 Niš), he is obliged to stop the works immediately and inform the relevant Institute for Protection of Cultural Monuments and PERS.	Contractor	Supervising Authority	
Operation	**Special measures defined by the conditions of relevant institutons**				

[7] http://www.aleksinac.org/index.php/strategije-razvoja/regionalni-plan-upravljanja-otpadom

	The Institute for Nature Conservation of Serbia	– The project should foresee such solutions and measures that will provide conditions for the preservation of air, soil, underground and surface waters. – 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 channels 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 recepient 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 – Given things should be defined and provided by the Project: - Preservation of the coastal zone, since it is not allowed to destroy coastal vegetation, disturbance of wild species and their habitats, - it is not allowed to dispose any waste, especially construction waste in the coastal zone and riverbed, - temporary locations for the storage of the necessary construction and other materials and equipment, which must be located outside 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. - 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 the works, take all precautions to ensure that all individual trees along the carriageway are maximally protected from possible damage, such as breakage of the branches and removal of the bark from the trunk while driving machinery, or in any other way disrupting their essential properties. - Certain intake pipes and separators of grease and oil for water collected on the carriageway should be foreseen, in order to protect environment from pollution. Before discharging it into the recepient or sewage system, it is necessary to control their quality. - 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, the road area must be cleaned and rehabiliated. In that sense, appropriate measures must be foreseen to prevent pollution from spreading, the protection of flora and fauna in water and land recultivation, replacement and grassing.		

	The Institute for Protection of Cultural Monuments of Niš	- The Applicant is obliged to provide all the conditions and enable constant monitoring during the execution of works done by an archaeological team - archaeological supervision; - The applicant is obliged to notify the competent institution within 8 days prior to commencement of the works in order to organize the supervision. - If during the execution of works archeological sites or archaeological objects are found out, the Contractor is obliged to immediately, without any delay, inform the Institute for Protection of Cultural Monuments of Niš, interrupt works and take protective measures so that the finding would not be destroyed and damaged and preserved in the place and position in which it was discovered. - In case the works are performed on the surface of an archaeological or historical site whose existence has not been registered so far, the applicant is obliged to provide funds for archaeological research, protection, preservation, publication and presentation of it, which will be regulated by a special agreement between the Applicant and the Institute.			
Operation	**Maintenance**				
	negative impact of noise on local residents, animals and workers	– limit activities to daylight working hours (no works between 8pm and 7am or in accordance with the public consent); – use the equipment with noise mufflers installed	Contractor of works on maintenance	Contractor of works on maintenance	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	– 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	– 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	– 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	– 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	

10. APPENDIX 2

MONITORING PLAN (FOLLOWING THE IMPACTS)

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	Ensure compliance of the plant with the environmental protection and health and safety at work	Plant manager
Quarry	Possession of an official approval or valid (operating) license	Quarry	Inspection / Supervising engineer	Prior to the commencement of works		Quarry manager
Sand and gravel borrow-pit	Possession of an official approval or valid (operating) license	Sand and gravel borrow-pit	Inspection / Supervising engineer	Prior to the commencement of works		Borrow-pit or separation facility manager
Concrete plant	Possession of an official approval or valid (operating) license	Concrete plant	Inspection / Supervising engineer	Prior to the commencement of works		Manager of a concrete plant
Construction	**Material Transport**					
Asphalt	Covered truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor’s supervision
Stone	Covered or wet truckload	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Ensure the compliance of the plant with the health and safety and environmental requirements. Minimal disruptions of traffic	Contractor’s supervision

Phase	Which parameters to be monitored?	Location where the parameter is 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	– Once, at the beginning of the project – quarterly, – due to grievances. – If the tracking results are not satisfactory, it is to be prepared on a monthly level	Ensure the compliance of the plant with the health and safety and environmental requirements.	Contractor's supervision (monitoring)
Water and soil pollution resulting from improper material storage, management and use	soil and water quality (suspended solids, oils, PH values, conductivity)	Watercourses near the storage places	– Unannounced sampling; – analysis in a certified laboratory possessing the required equipment	Monitoring should be performed prior to the construction (at the reference point upstream from the construction site) and once during the rehabilitation works. If the tracking results are not satisfactory, it should be performed at a monthly basis until the works on the site are finished	Minimal disruptions of traffic	Contractor's supervision (monitoring)
Dust	Air pollution (solid particles)	On and near the construction site, quarry, inhabited settlements...	Inspection and visual observation	Unannounced inspections during the delivery of materials and construction	Ensure the compliance of the plant with the health and safety and environmental requirements.	Contractor's supervision (monitoring)

Phase	Which parameters to 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	– 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 ❑ No ❑	If no, please provide details of any material non-compliances:
Is the project compliant with all applicable environmental and social laws and regulations?	Yes ❑ No ❑	If no, please provide details of any material non-compliances:
Are there any accidents or incidents that have caused damage to the environment, brought about injuries or fatalities, affected workers, local communities or cultural property? Has it created liabilities for the company?	Yes ❑ No ❑	If yes, please describe, including details of actions to repair and prevent reoccurrence:
Are there any changes to environment, social, labor or health and safety laws or regulations that have materially affected the company?	Yes ❑ No ❑	If yes, please describe:
How many inspections were carried out by the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of 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 ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	If yes, please describe:
Please describe any environment or social programs, initiatives or sub-projects undertaking during the reporting period to improve the company's environmental or social performance and/or management systems: Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Action Plan, or to any other initiative:		

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

3. Environmental Monitoring Data 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_2O				

[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 ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	If yes, please provide details and summarize engagement with them during reporting period:		
Were there any changes in the status of Collective Agreements?	Yes ❑ No ❑	If yes, please provide details:		
Have employees expressed any grievance regarding the project during the reporting period?	Yes ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved
Were there any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:
Were there any changes to the following policies or terms and conditions during the reporting period in any of the following areas: • Union recognition • Collective Agreement • Non-discrimination and equal opportunity • Equal pay for equal work • Gender Equality • Bullying and harassment, including sexual harassment • Employment of young persons under age 18 • Wages (wage level, normal and overtime) • Overtime • Working hours • Flexible working / work-life balance • Grievance mechanism for workers • Health & safety	Yes ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	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 ❑ No ❑	If yes, specify how many persons effectively made use of the legal support.
Have all outstanding land and/or resource claims been settled?	Yes ❑ No ❑ Not applicable ❑	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 ❑ No ❑	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❑ No❑	If yes, please state how many meetings were held and how many participants attended those meetings
New Land Acquisitions If the company acquired any new land for the project during the reporting year, please provide documents to show closure of land acquisition transactions. 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.		
Are there any persons that have been physically displaced?	Yes❑ No❑	If yes, how many?
Are there any persons that have been economically displaced?	Yes❑ No❑	If yes, how many?
Will the government assist that resettlement?	Yes❑ No❑	

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:

11. 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. Manualof 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).

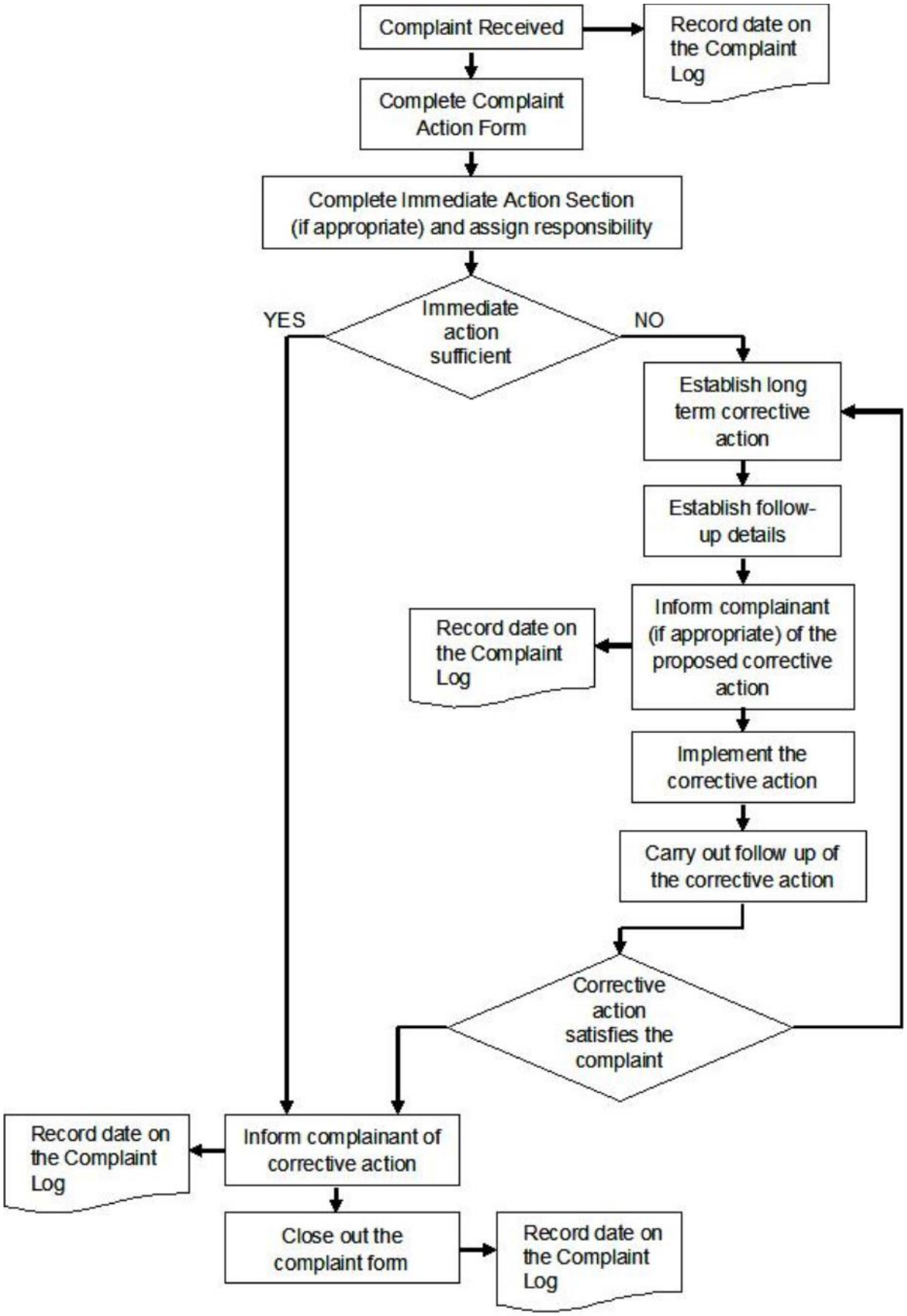
Other relevant Serbian legislation

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);

12. APPENDIX 4

THE GRIEVANCE MECHANISM AND FORM

The algorithm of the grievance flow / Complaint procedure



<table>
<tr><td colspan="5">Reference number of a grievance:</td></tr>
<tr><td rowspan="3">Contact details</td><td colspan="4">Name:</td></tr>
<tr><td colspan="4">Address:</td></tr>
<tr><td colspan="4">Tel:</td></tr>
<tr><td></td><td colspan="4">e-mail:</td></tr>
<tr><td>How would you prefer to be contacted?
Please tick a box</td><td>by post</td><td>by phone</td><td colspan="2">by e-mail</td></tr>
<tr><td colspan="5">Name and personal information (a unique master citizen number from identity card)</td></tr>
<tr><td colspan="5">Details of your grievance. Please describe the problems, whom they occurred to, when, where and how many times, as relevant</td></tr>
<tr><td colspan="5">What is your proposal for resolving the grievance?</td></tr>
<tr><td rowspan="3">How to submit this form to the authorized persons</td><td colspan="4">By post:</td></tr>
<tr><td colspan="4">by hand:
please drop this form at:</td></tr>
<tr><td colspan="4">by e - mail: Please e-mail your grievance, proposed resolution and contact details to the following e – mail address:</td></tr>
<tr><td>Signature</td><td colspan="2"></td><td>Date</td><td></td></tr>
</table>

13. APPENDIX 5

PUBLIC CONSULTATIONS

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

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

Environmental Management Plan was prepared within Road Rehabilitation and Safety Project, for suggested heavy maintenance of State Road IA class, No. 1 section: Razanj interchange – Aleksinac 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 23.645 km. The beginning of the section intended for rehabilitation is defined on the chainage km 408+712 at the node 0147 Aleksinac interchange and the end of the section is defined on the chainage km 385+067 at the node 0145 Razanj 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 class No.1, Section: Razanj interchange- Aleksinac 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- Aleksinac interchange on September 28th, 2018. The call was published on the PE Roads of Serbia's website (September 28th, 2018), as well as in ''Politika'' newspapers (October 1st, 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 Razanj and Aleksinac. Municipal representatives informed the public through local media and municipality's website about the time and place of the public discussion.

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

- the headquarters of PE "Roads of Serbia", Sector for Investments, Vlajkoviceva 19a Street, Belgrade, on the first floor, every working day from 11:00 AM to 01:00 PM, within 14 days from the date of publication of this notice;
- within the premises of 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 the Conference room of Municipal Assembly of Aleksinac, Prince Milos 169 street, 18220 Aleksinac, on working days from 8:00 AM to 3:00 PM (local time), 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 a small conference room of Municipal Assembly of Razanj, on October 18th, 2018, from 12:00 AM to 1:00 PM. The list of questions and answers is in Chapter „***COMPLAINTS, QUESTIONS AND ANSWERS*”.**

REPORT ON PUBLIC CONSULTATION, RAZANJ OCTOBER 18th, 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 class No.1, road section: Razanj interchange – Aleksinac interchange, in length of 23.645 km, has been prepared.

Environmental Management Plan was made publicly available on September 28th, 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 Razanj and Aleksinac. Document was posted on the website of PE Roads of Serbia.

Representatives of local self-government informed the public through local media about the time and place of the public consultation. The insight into the draft of the Environmental Management Plan was completed on October 18th, 2018, when public consultations were held in Razanj.

Public consultations, held in Razanj on October 18th, 2018, were attended by 6 people[17]. The representatives of the Municipality of Razanj, Administration Sector, as well as 2 representatives of Main Design Designers were among the participants.

[17] The list of participants is in Chapter *„**LIST OF PARTICIPANTS“***.

People who participated on public consultations were:

No.	Name and Surname	Working organization-institution
1.	Ivan Ivanovic	Municipality of Razanj, Administration Sector
2.	Jovana Marinkovic	„MHM“ Projekt
3.	Vesna Zivkovic	Municipality of Razanj, Administration Sector
4.	Marko Dinic	Municipality of Razanj, Administration Sector
5.	Snezana Milutinovic	Municipality of Razanj, Administration Sector
6.	Miroslav Stojanovic	„MHM“ Projekt

***Figure 1**. Public Consultations Held in a Small Conference Room of the Municipality of Razanj on October 18th, 2018*

***Figure 2**. Public Consultations Held in a Small Conference Room of the Municipality of Razanj on October 18th, 2018*

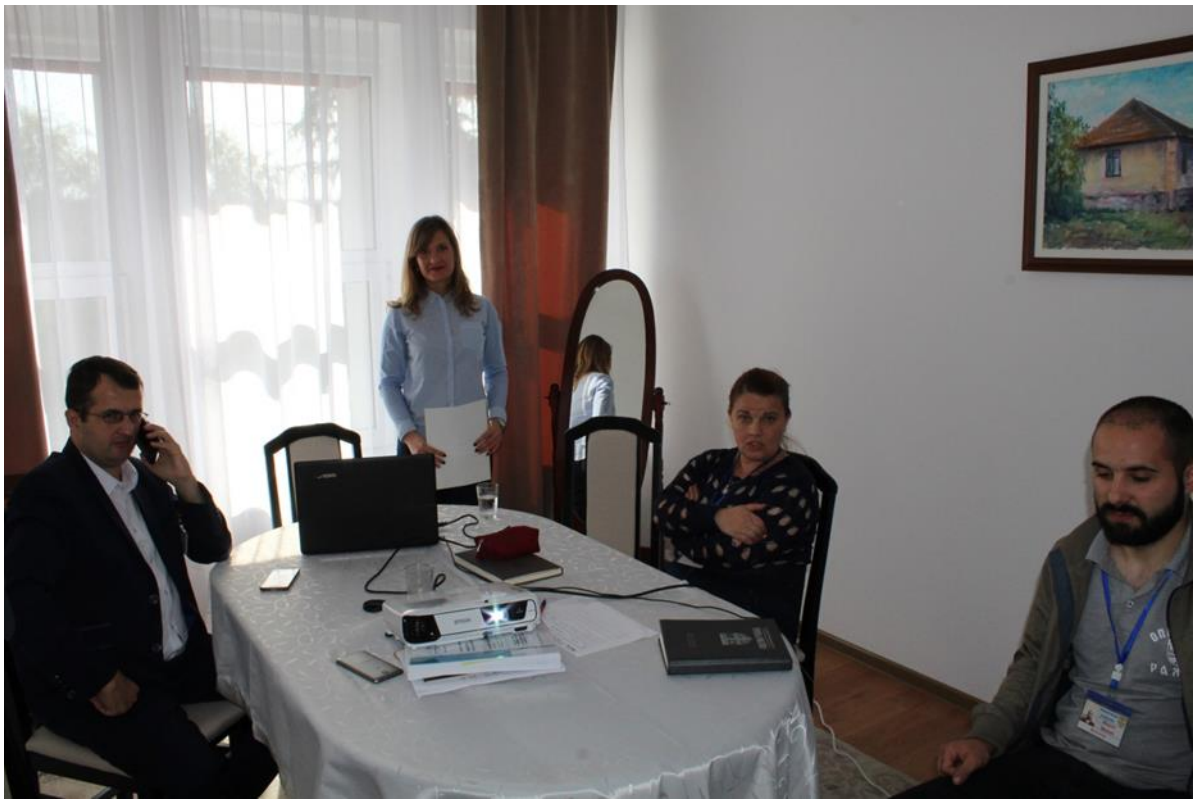


***Figure 3.** Public Consultations Held in a Small Conference Room of the Municipality of Razanj on October 18th, 2018*

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 – Aleksinac interchange started at 12:00 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 „***COMPLAINTS, QUESTIONS AND ANSWERS***“.

COMPLAINTS, QUESTIONS AND ANSWERS

Question 1: Were the noise barriers foreseen by the Project?

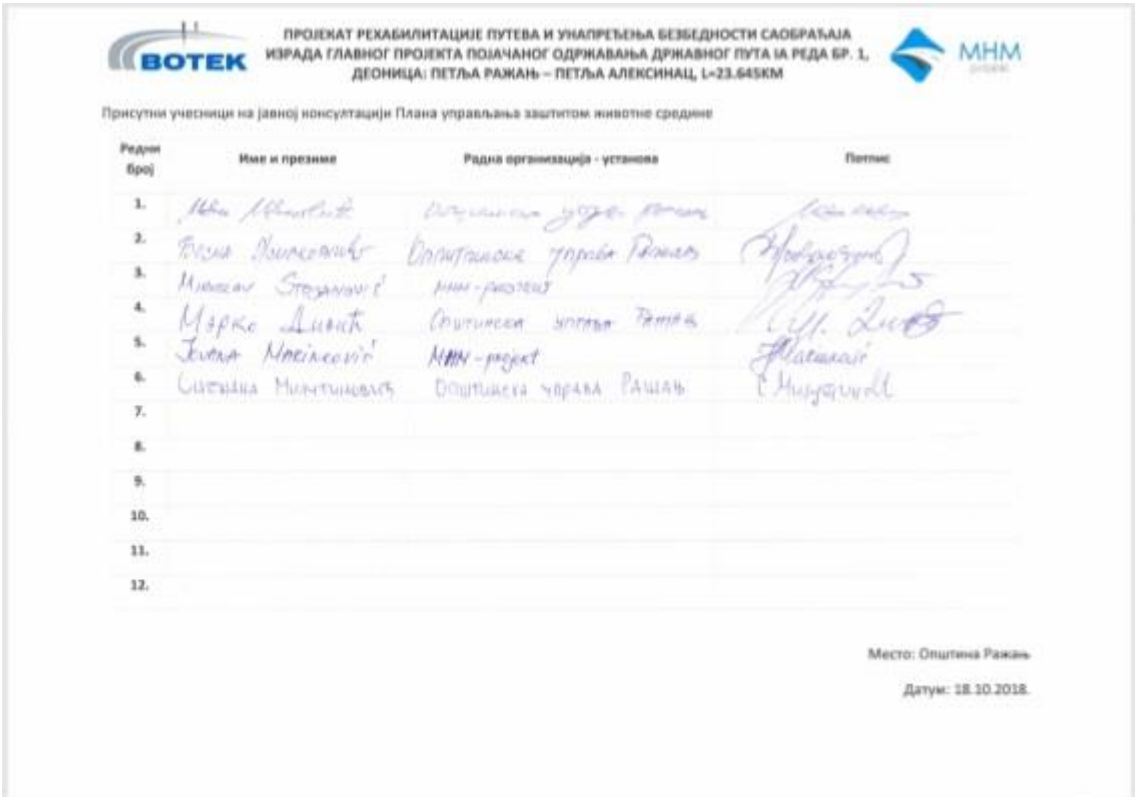
Answer 1: The designer foresaw the installation of noise barriers in the phase of the execution of works, in places where there is need for their installation. The Contractor is obliged to define in the Contractor's Environmental Management Plan the exact location of the installation of noise barriers.

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

Question 2: Where will the collected runoff from the carriageway be purified?

Answer 2: The collected runoff will be purified on places where the observed section is intersected by the registered watercources.

LIST OF PARTICIPANTS



ПРОЈЕКАТ РЕХАБИЛИТАЦИЈЕ ПУТЕВА И УНАПРЕЂЕЊА БЕЗБЕДНОСТИ САОБРАЋАЈА
ИЗРАДА ГЛАВНОГ ПРОЈЕКТА ПОЈАЧАНОГ ОДРЖАВАЊА ДРЖАВНОГ ПУТА IA РЕДА БР. 1,
ДЕОНИЦА: ПЕТЉА РАЖАЊ – ПЕТЉА АЛЕКСИНАЦ, L=23.645KM

Присутни учесници на јавној консултацији Плана управљања заштитом животне средине

Редни број	Име и презиме	Радна организација - установа	Потпис
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

Место: Општина Ражањ

Датум: 18.10.2018.

Figure 4. *A List of People Present at Public Consultations Held in a Small Conference Room of the Municipality of Razanj*

DOCUMENTATION

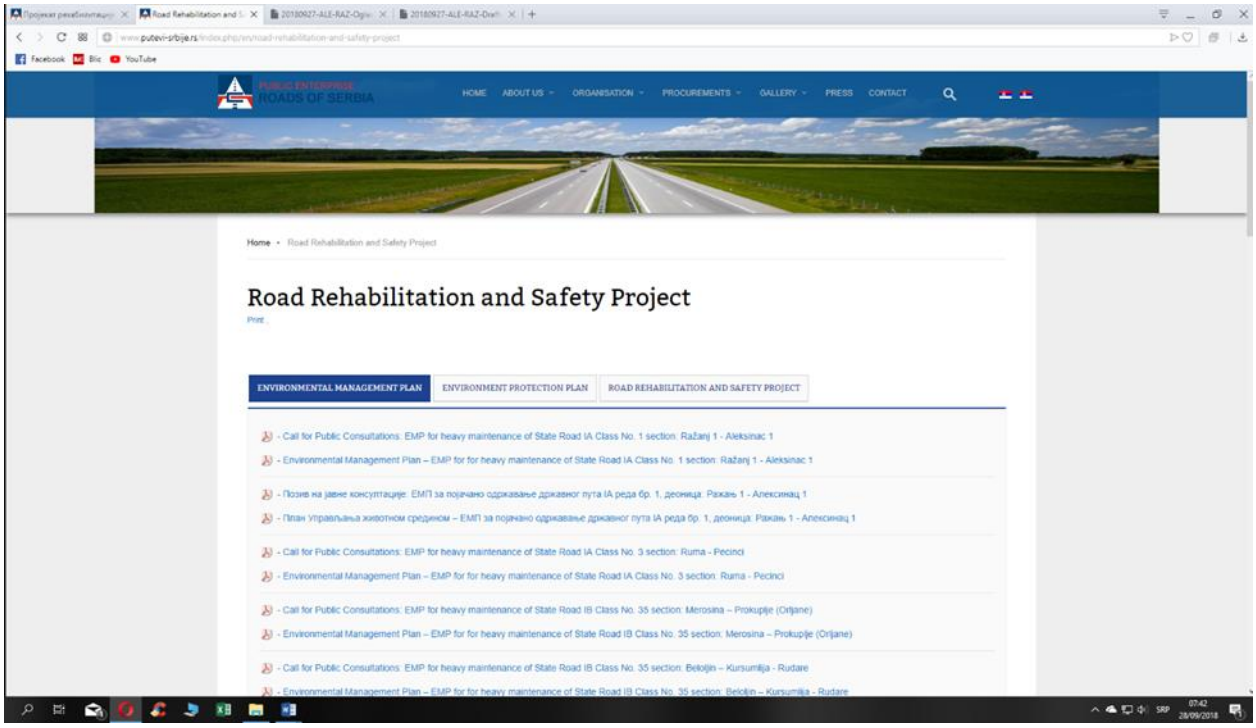
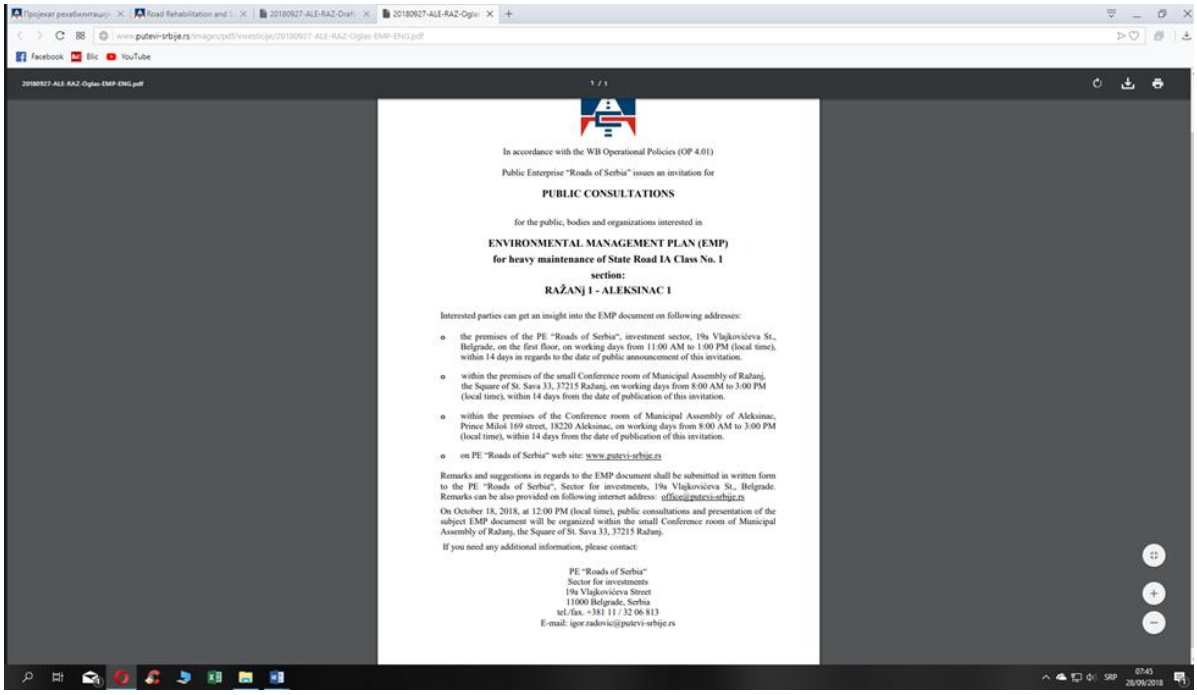


Figure 5. *Call for Public Consultations Posted on the website of PE ''Roads of Serbia''*


In accordance with the WB Operational Policies (OP 4.01)

Public Enterprise "Roads of Serbia" issues an invitation for

PUBLIC CONSULTATIONS

for the public, bodies and organizations interested in

ENVIRONMENTAL MANAGEMENT PLAN (EMP)
for heavy maintenance of State Road IA Class No. 1
section:
RAŽANJ 1 - ALEKSINAC 1

Interested parties can get an insight into the EMP document on following addresses:

- the premises of the PE "Roads of Serbia", investment sector, 19a Vlajkovićeva St., Belgrade, on the first floor, on working days from 11:00 AM to 1:00 PM (local time), within 14 days in regards to the date of public announcement of this invitation.
- within the premises of the small Conference room of Municipal Assembly of Ražanj, the Square of St. Sava 33, 37215 Ražanj, on working days from 8:00 AM to 3:00 PM (local time), within 14 days from the date of publication of this invitation.
- within the premises of the Conference room of Municipal Assembly of Aleksinac, Prince Miloš 169 street, 18220 Aleksinac, on working days from 8:00 AM to 3:00 PM (local time), within 14 days from the date of publication of this invitation.
- on PE "Roads of Serbia" web site: www.putevi-srbije.rs

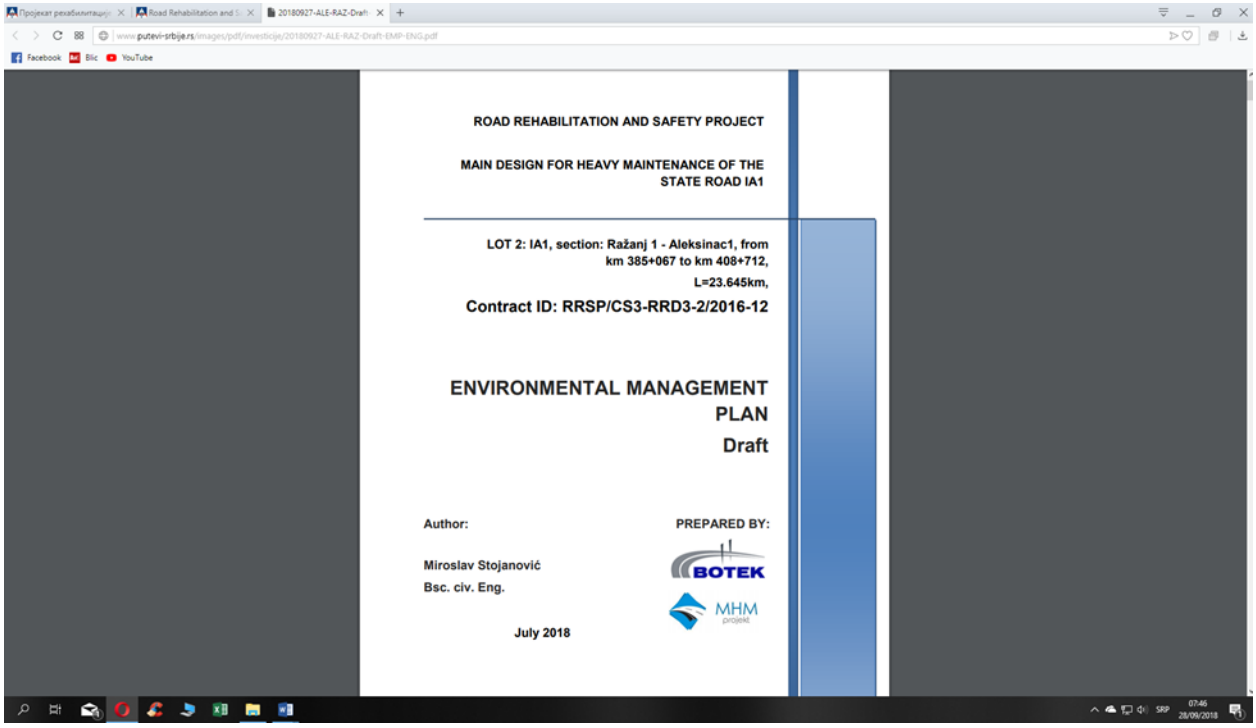
Remarks and suggestions in regards to the EMP document shall be submitted in written form to the PE "Roads of Serbia", Sector for investments, 19a Vlajkovićeva St., Belgrade. Remarks can be also provided on following internet address: office@putevi-srbije.rs

On October 18, 2018, at 12:00 PM (local time), public consultations and presentation of the subject EMP document will be organized within the small Conference room of Municipal Assembly of Ražanj, the Square of St. Sava 33, 37215 Ražanj.

If you need any additional information, please contact:

PE "Roads of Serbia"
Sector for investments
19a Vlajkovićeva Street
11000 Belgrade, Serbia
tel./fax. +381 11 / 32 06 813
E-mail: igor.radovic@putevi-srbije.rs

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



ROAD REHABILITATION AND SAFETY PROJECT

MAIN DESIGN FOR HEAVY MAINTENANCE OF THE STATE ROAD IA1

LOT 2: IA1, section: Ražanj 1 - Aleksinac1, from km 385+067 to km 408+712, L=23.645km,

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

ENVIRONMENTAL MANAGEMENT PLAN

Draft

Author:

Miroslav Stojanović
Bsc. civ. Eng.

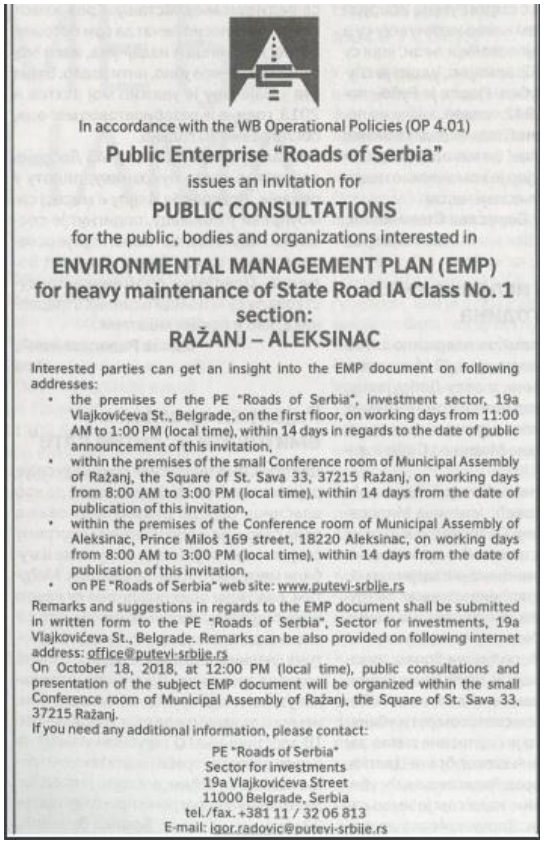
July 2018

PREPARED BY:

BOTEK

MHM

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



In accordance with the WB Operational Policies (OP 4.01)

Public Enterprise "Roads of Serbia"

issues an invitation for

PUBLIC CONSULTATIONS

for the public, bodies and organizations interested in

ENVIRONMENTAL MANAGEMENT PLAN (EMP)
for heavy maintenance of State Road IA Class No. 1
section:
RAŽANJ – ALEKSINAC

Interested parties can get an insight into the EMP document on following addresses:

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- within the premises of the small Conference room of Municipal Assembly of Ražanj, the Square of St. Sava 33, 37215 Ražanj, on working days from 8:00 AM to 3:00 PM (local time), within 14 days from the date of publication of this invitation,
- within the premises of the Conference room of Municipal Assembly of Aleksinac, Prince Miloš 169 street, 18220 Aleksinac, on working days from 8:00 AM to 3:00 PM (local time), within 14 days from the date of publication of this invitation,
- on PE "Roads of Serbia" web site: www.putevi-srbije.rs

Remarks and suggestions in regards to the EMP document shall be submitted in written form to the PE "Roads of Serbia", Sector for investments, 19a Vlajkovićeva St., Belgrade. Remarks can be also provided on following internet address: office@putevi-srbije.rs

On October 18, 2018, at 12:00 PM (local time), public consultations and presentation of the subject EMP document will be organized within the small Conference room of Municipal Assembly of Ražanj, the Square of St. Sava 33, 37215 Ražanj.

If you need any additional information, please contact:

PE "Roads of Serbia"
Sector for investments
19a Vlajkovićeva Street
11000 Belgrade, Serbia
tel./fax. +381 11 / 32 06 813
E-mail: igor.radovic@putevi-srbije.rs

Figure 8. *Announcement Published in „Politika" Newspapers*

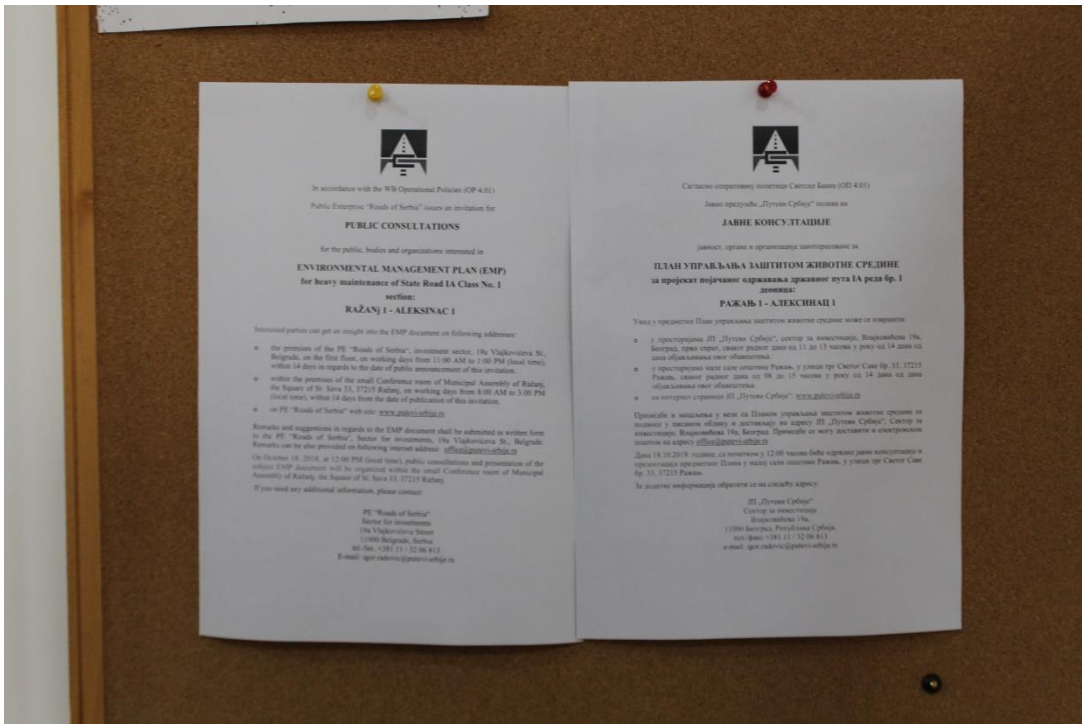

Figure 9. *Notice of a Public Consultation Meeting Hung on the Bulletin Board in the Municipality of Razanj*

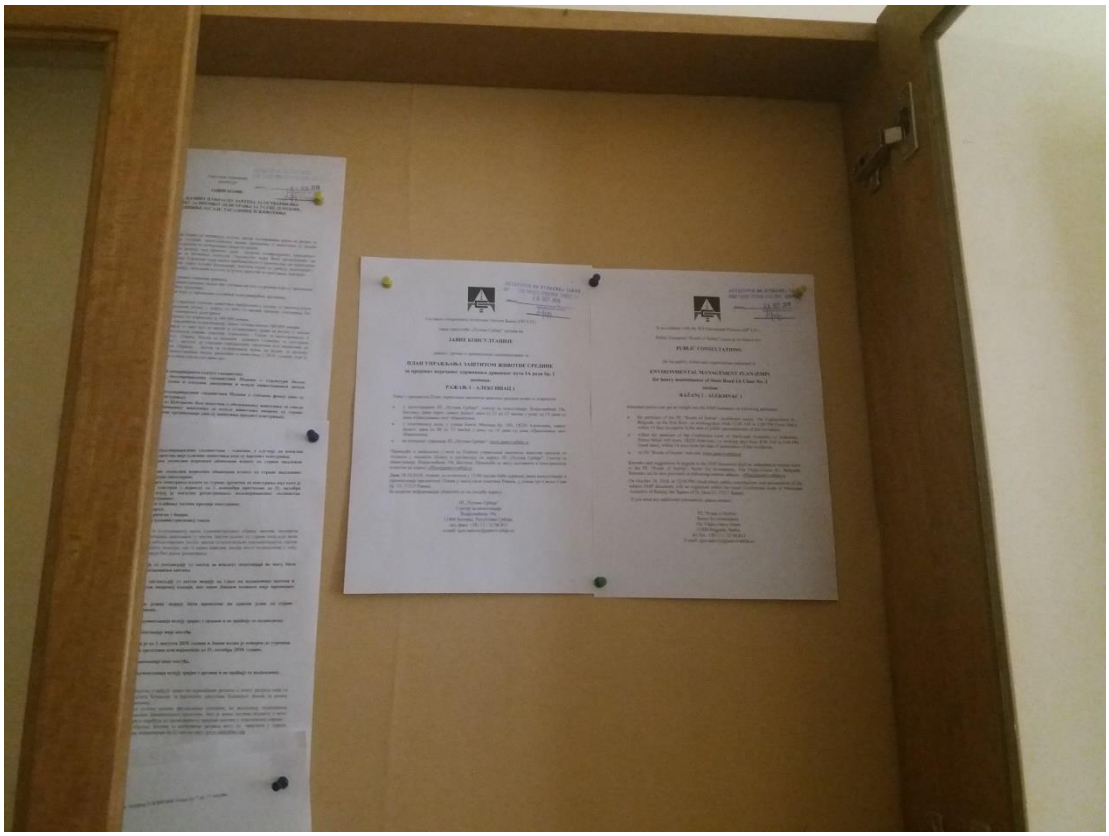

Figure 10. *Notice of a Public Consultation Meeting Hung on the Bulletin Board in the Municipality of Aleksinac*

14. APPENDIX 6

CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS

Р е п у б л и к а С р б и ј а
ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ СРБИЈЕ
Нови Београд, Др Ивана Рибара бр. 91
Тел: +381 11/2093-802; 2093-803
Факс: + 381 11/2093-867

ЈАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"
Број 953-17205/17-1
Датум 19-09-2017
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 бр. 953-17205 од 18.08.2017. године Јавног предузећа „Путеви Србије" из Београда, Булевар Краља Александра бр. 282, 11050 Београд, 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 Алексинац, дана 11.09. године под 03 бр. 020-1999/3, доноси

РЕШЕЊЕ

1. Предметно подручје се не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите, не налази се у просторном обухвату еколошке мреже нити у простору евидентираног природног добра. Сходно томе, издају се следећи услови заштите природе:
   1) Пројектом предвидети таква решења и мере који ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода.
   2) Предвидети противерозионе 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 дренирање воде са површине коловоза.
   6) Пројектом дефинисати и обезбедити следеће:
      - очување обалског појаса, односно није дозвољено уништавање приобалне вегетације, нарушавање дивљих врста и њихових станишта,
      - није дозвољено трајно одлагање/депоновање било каквог отпада, посебно грађевинског у обалском појасу и самом кориту реке,
      - привремене локације за складиштење потребног грађевинског и другог материјала и опреме, које је неопходно планирати ван обалског појаса, као и простора са високом вегетацијом, и ограничити их искључиво на време трајања радова,
      - привремене или трајне локације (постојеће уређене комуналне објекте/депоније) за одлагање и депоновање шута и другог отпада укључујући и комунални настао у току извођења радова,
      - строго се придржавати трасе и коридора пута како се при манипулацији возилима и машинама не би оставиле последице на шири простор,

– користити постојећу путну мрежу без изградње нових путева, у циљу спречавања фрагментације простора и постојећих станишта.

7) Током извођења радова предузети све мере предострожности како би се евентуална појединачна стабла уз трасу пута максимално заштитила и сачувала од могућег оштећења, као што је ломљења грана и скидање коре са дебла при кретању механизације, или на било који други начин нарушила њихова битна својства.
8) Предвидети таложнике и сепараторе масти и уља за воде које настају спирањем са коловоза, у циљу заштите од загађења. Пре испуштања у реципијент или канализацију, обавезна је контрола њиховог квалитета.
9) Није дозвољено сервисирање возила и машина дуж трасе и коридора пута. Уколико дође до хаваријског изливања горива, уља/мазива и других штетних материја обавезна је санација површине. У том смислу, морају се предвидети одговарајуће мере спречавања ширења загађења, заштите живог света водотока и рекултивације земљишта, заменом и затрављивањем.
10) Извођење радова у току ноћних сати није дозвољено због могућег негативног утицаја буке грађевинских машина на животињски свет.
11) Предвидети превентивне мере ради спречавања акцидентних ситуација, као и одговарајуће активности уколико до њих дође, уз обавезу обавештавања надлежних инспекцијских служби.
12) Након окончања свих грађевинских радова обавезно санирати све деградиране површине и уклонити све вишкове грађевинског материјала и опреме, машине и др. Потребно је планирати ревитализацију полуприродних или природних станишта и вегетације након изградње објекта.
13) Уколико се током радова наиђе на геолошко-палеонтолошка документа или минералошко-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, као и да предузме све мере заштите од уништења, оштећења или крађе до доласка овлашћеног лица.

2. Ово Решење не ослобађа подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима.
3. У случају измене Пројекта, потребно је Заводу за заштиту природе Србије поднети нов захтев за издавање услова заштите природе.
4. Уколико подносилац захтева у року од две године од дана достављања овог решења не отпочне радове и активности за које је ово решење издато, дужан је да поднесе захтев за издавање новог решења.
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.

О б р а з л о ж е њ е

Завод за заштиту природе Србије примио је дана 21.08.2017. године захтев 03 бр. 020-1999/1 Јавног предузећа „Путеви Србије“ из Београда 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.

На основу достављеног захтева и пратеће документације подносиоца захтева, утврђено је да је планирана израда пројекта Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Алексинац. Предметни Пројекат је саставни 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. Почетак деонице је петља Ражањ на Е-75, крај деонице је петља Алексинац на Е-75. Врста радова која се планира углавном обухвата радове ојачања постојеће коловозне конструкције (на појединим местима до дубине 50-60 cm 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.

Увидом у Централни регистар заштићених природних добара Србије 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, не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите, не налази се у просторном обухвату еколошке мреже нити у простору евидентираног природног добра.

Законски основ за доношење решења: Закон о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010-исправка и 14/2016); Закон о заштити животне средине („Службени гласник РС“, бр. 135/2004, 36/2009, 72/2009, 43/2011 и 14/2016); Уредба о еколошкој мрежи („Службени гласник РС“, бр. 102/2010).

Планирани радови на изради техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Алексинац могу се реализовати под условима дефинисаним овим Решењем, јер је процењено да неће утицати на 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 писмено или изјављује усмено на записник Заводу за заштиту природе Србије.

ДИРЕКТОР

Александар Драгишић

Достављено:
- Подносиоцу захтева
- Архива x 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

ЈАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"
Број: 953-14877/18-1
20-07-2018
Датум
БЕОГРАД, Булевар Краља Александра бр. 282

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 број: 953-14877 од 06.07.2018. године ЈП „Путеви Србије" из Београда, ул. Булевар Краља Александра бр. 282, за исправљање грешке у Решењу 03 бр. 020-1999/3 од 18.09.2017. године, дана 19.07. 2018. године, под 03 бр. 020-1999/5 доноси

Р Е Ш Е Њ Е

1. У Решењу 03 бр. 020-1999/3 од 18.09.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута 1А реда бр.1 (аутопут Е-75), деоница петља Ражањ - петља Алексинац, исправљају се грешке, 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 и 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).";

   - тачка 1. подтачка 8) се брише.

2. У свему осталом предметно Решење остаје непромењено.

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

О б р а з л о ж е њ е

Завод за заштиту природе Србије примио је дана 06.07.2018. године захтев заведен под 03 бр. 020-1999/4 ЈП „Путеви Србије" из Београда за исправљање грешке у Решењу Завода 03 бр. 020-1999/3 од 18.09.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута 1А реда бр.1 (аутопут Е-75), деоница петља Ражањ - петља Алексинац.

У току писања наведеног решења у тачки 1. подтачка 4) диспозитива направљена је очигледна грешка прописивањем мера које се односе на обавезно прикупљање вода 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 количине 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.

Додатно, подтачка 8) у оквиру исте тачке понавља подтачком 4) прописан услов, па ју је стога и потребно уклонити.

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

Република Србија
ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ НИШ
Ниш, Добричка 2, тел. 018/523-414, факс 018/523-412
E-mail: kontakt@zzsknis.rs
Број: 1015/2
Датум: 29.08.2017.

ЈАВНО ПРЕДУЗЕЋЕ "ПУ" Р СРБИЈЕ
Број: 953-17208/17-1
20 -09- 2017

АА

Завод за заштиту споменика културе Ниш, на основу чл. 104 "Закона о културним добрима" (Сл. гласник РС бр. 71/94) и чл. 131 "Закона о општем управном поступку" (Сл. лист СРЈ бр.33/97, 31/01) и на основу чл. 104, а у вези са чл. 100 "Закона о културним добрима" (Сл. гласник РС бр. 71/94) решавајући по захтеву ЈП "Путеви Србије" 11050 Београд, Сектор за инвестиције, Београд, Влајковићева 19а, доноси

Р Е Ш Е Њ Е

О утврђивању услова за предузимање мера техничке заштите за израду техничке документације пројекта *Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Алексинац*

I Мере техничке заштите: израда техничке документације пројекта *Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Алексинац*, може се предузети уз неизоставно поштовање следећих услова:

1. Подносилац захтева је дужан да обезбеди све услове и омогући неометано и константно праћење радова, за све време трајања радова од стране археолошке екипе – археолошки надзор;

2. Подносилац захтева је дужан да благовремено, односно најкасније у року од 8 дана пре почетка радова, о томе званично обавести овај Завод;

3. Ако се у току извођења радова наиђе на археолошке и/или историјске локалитете или археолошке предмете, односно предмете из прошлости, извођач радова је дужан да одмах, без одлагања на том месту обустави радове и обавести надлежни Завод за заштиту споменика културе Ниш 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, као и да обезбеди услове за заштитна археолошка истраживања;

4. У случају да се радови обављају на површини на којој се налази археолошки или историјски локалитет чије постојање до сада није регистровано, подносилац захтева је дужан да обезбеди средства за археолошка истраживања, заштиту, чување, публиковање и презентацију истог, а што ће се регулисати посебним уговором између Подносиоца захтева и Завода.

II Подносилац захтева је дужан да изради пројекат у свему у складу са издатим условима из тачке I овог Решења.

III Инвеститор је у обавези да по изради пројектне документације исту достави Заводу ради добијања сагласности да је урађена према прописаним условима. Један примерак пројектне документације доставља се за потребе Завода.

IV Ово Решење не ослобађа подносиоца захтева прибављања услова о заштити природе и других решења предвиђених прописима.

V Ово Решење важи годину дана.

VI Жалба на Решење не одлаже извршење.

О б р а з л о ж е њ е

ЈП "Путеви Србије" 11050 Београд Булевар краља Александра 282, Сектор за инвестиције, Београд, Влајковићева 19а, поднело је захтев наш бр. 1015/1 од 21.08.2017. године за добијање услова **за израду техничке документације пројекта *Појачаног одржавања деонице државног пута државног пута IA реда бр. 1 (аутопут Е-75), деоница петља Ражањ – петља Алексинац***, на територији општина Ражањ и Алексинац.

Разматрајући захтев, у току поступка установљено је да на наведеном простору није извршена систематска проспекција непокретних културних добара.

У циљу заштите археолошких локалитета и добара која уживају претходну заштиту, ЈП "Путеви Србије" 11050 Београд Булевар краља Александра 282, Сектор за инвестиције, Београд, Влајковићева 19а дужно је да поступи по мерама прописаним овим Решењем.

Имајући у виду наведено, као и одредбе "Закона о културним добрима" (чл. 7, 8, 12, 27, 109, и 110) које прописују обавезу предузимања мера техничке заштите у циљу очувања добара која уживају претходну заштиту, донето је решење као у диспозитиву.

На основу чл. 104 став 3. "Закона о културним добрима" прописано је да уложена жалба не одлаже извршење решења.

ПРАВНИ ЛЕК: Против овог решења може се изјавити жалба Републичком заводу за заштиту споменика културе Београд у року од 15 дана од дана пријема решења. Жалба се непосредно предаје или шаље поштом доносиоцу овог решења.

В.Д.ДИРЕКТОРА ЗАВОДА,

Елена Васић Петровић

Доставити:

- Подносиоцу захтева
- Документацији

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 саобтаћаја (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. & MHM –PROJEKT 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 "Морава" Ниш
Бр.1885/2
Датум: 22 .03.2018. год.
Ниш
НИ.

Јавно водопривредно предузеће "Србијаводе" Београд, Водопривредни центар "Морава" Ниш, на основу Закључка Министарства пољопривреде и заштите животне средине, Републичке дирекције за воде, бр.325-службено од 27.09.2016.год., решавајући по захтеву JV BOTEK Bosphorus Technical Consulting Corp. & MHM-PROJEKT D.O.O. NOVI SAD, бр:11-230218/2 од 23.02.2018.год., који је по овлашћењу Јавног предузећа "Путеви Србије" Београд, Бул.Краља Александра бр.282, (пиб. мбр.) издаје

М И Ш Љ Е Њ Е
у поступку издавања водних услова ради израде Главних пројеката појачаног одржавања на деоницама државних путева LOT 2: IA1, деоница:Алексинац 1- Ражањ 1, L=23,645км.

1. Општи подаци

1.1. Назив
- објекат: државни пут IA1 реда, деоница: Алексинац 1- Ражањ 1, л=23,645 км;
- општина: Алексинац, Ражањ;
- управни округ: Нишавски;
- радови: израда главног пројекта појачаног одржавања државног пута IA1, деоница Алексинац 1- Ражањ 1, л=23,645 км;

1.2. Хидрографски подаци

- Постојећи државни пут IA реда (аутопут), деоница: Алексинац-Ражањ пружа се паралелно са током реке Јужне Мораве од које је удаљен 2-3км. На деоници која је обухваћена пројектом предвиђени су радови на 10 локације:
  1. Мост преко реке Моравице, стац.407+758,
  2. Мост преко Рутевачког потока, стац.398+480,
  3. Мост преко Сувог потока, стац.396+525,
  4. Мост преко Дреновачког потока, стац.394+029,
  5. Надвожњак у петљи Делиград, стац.393+248,
  6. Мост преко Рујишке реке, стац.392+249,
  7. Надвожњак преко пута Ђунис-Ражањ, стац.389+947,
  8. Вијадукт код Ражња, стац.388+163,
  9. Вијадукт код Ражањског потока, стац.386+425,
  10. Надвожњак преко локалног пута, стац.385+949.

- Наведене стационаже се не слажу са стационажама из достављене ситуације (нпр. мост преко р.Моравице стац. на ситуацији 407+400). Такође за р.бр.2,3,4,5,6 и 7.
- Редни бр.2 је мост преко Мозговачке реке (наведено Рутевачки поток);

- После Сувог потока (пр.229, стац.396+500) изостављен је Бели поток (на пр.209, стац.395+500);
- Редни бр.9 Вијадукт је код Ражањске реке.

- слив: Јужна Морава;
- водно подручје: Морава;

1.3.Хидролошки подаци

1. Мост преко реке Моравице, стац.407+400, ПР.447.
   Река Моравица је у Оперативном плану одбране од поплава за 2017.год. на сектору М.8.1.8 и М.8.1.9, леви и десни насип уз Моравицу од ушћа у Јужну Мораву, 2,7км. У току фебруара 2016.год. извођени су радови на заштити косина корита у зони моста каменим набачајем (Извођач ВП"Смедеревска Паланка", инвеститор ЈП"Путеви Србије"). Разлог поткопавања стубова моста је депресија која се јавља због непосредне близине ушћа Моравице у Јужну Мораву (око 400м низводно од моста) па је мишљење стручне службе да заштиту стубова моста треба урадити изградњом прага непосредно низводно.

2. Мост преко Мозговачке реке (Рутевачког потока), стац.398+450, ПР.268.
   Мозговачка река је у Оперативном плану одбране од поплава за 2017.год. на сектору М.8.1.6 и М.8.1.7, леви и десни насип уз Мозговачку реку од ушћа у Јужну Мораву, 1,2км. односно до с.Рутевац. Деоница Мозговачке реке од с.Рутевац до аутопута (л=700м) није регулисана.

3. Мост преко Сувог потока, стац.396+500, ПР.229. и мост преко Белог потока, стац.395+500, ПР.209.
   Суви и Бели поток су бујични водотоци. Приликом израде пројекта канала за одводњавање у оквиру пројеката за комасацију у општини Алексинац (1982.год.), рачунате су површине слива и протицаји Сувог потока (до аутопута 7,7км^2, $Q_{2\%}$= 9,7 м^3/с, $Q_{1\%}$= 11,6 м^3/с) и Белог потока (до аутопута је 1,5км^2, $Q_{2\%}$=4,4 м^3/с, $Q_{1\%}$=5,3 м^3/с) и ови подаци се, због застарелости дају као орјентациони.

4. Мост преко Дреновачког потока, стац.394+029, ПР.394+000
   Дреновачки поток је бујични водоток. Такође је регулисан у оквиру комасационих радова (1984.год) од паралелног пута Деligрад-Вукашиновац до ушћа у Јужну Мораву. Налази се у Оперативном плану одбране од поплава за 2017.год. на сектору М.8.1.5 и М.8.1.6, леви и десни насип уз Дреновачки поток, 4,24км. Деоница од око 400м од аутопута до паралелног пута није регулисана. Није познато да ли су извођени регулациони радови у зони аутопута у време изградње и по којој документацији.
   У "Генералном пројекту система за заштиту од поплава насеља Ђунис, Малетина и Прасковче од реке Јужне Мораве, Рибарске реке и Послонске реке односно до улива Рујишке реке", који је урадио Институт за водопривреду "Јарослав Черни" а.д., фебруара 2018.год. дати су протицаји Дреновачког потока узводно од ушћа у Рујишку реку, $Q_{2\%}$ = 40 м^3/с и $Q_{1\%}$= 48 м^3/с и ови подаци се дају као орјентациони.

6.Мост преко Рујишке реке, стац.392+200, ПР.143.
   Рујишка река је бујични водоток. Регулисана је у оквиру комасационих радова (1984.год) од паралелног пута Прасковче-Јасење-Деligрад до ушћа у Јужну Мораву. Налази се у Оперативном плану одбране од поплава за 2017.год. на сектору М.8.1.3 и М.8.1.4, леви и десни насип уз Рујишку реку, 2,08км. Деоница од око 750м од аутопута до паралелног пута није регулисана а извођени су регулациони радови у зони аутопута али ми у архиви немамо документацију.

У наведеном "Генералном пројекту...", дати су протицаји Рујишке реке узводно од ушћа у Дреновачки поток $Q_{2\%}$=55 м^3/с и $Q_{1\%}$=66 м^3/с и ови подаци се дају као орјентациони.

8. Вијадукт код Ражња, стац.388+163, ПР.62-63.
Колико је стручној служби познато, узводно од вијадукта, на десној обали била је урађена сува депонија, претпостављамо у циљу заштите ножице косине аутопута. Немамо података.

9. Вијадукт код Ражањске реке, стац.386+425, ПР.27-28.
Ражањска река је бујични водоток. Регулисана је по "Главном пројекту за уређење дела тока Ражањске реке кроз градско подручје". Пројектант је била "Реонска секција за заштиту земљишта од ерозије и уређење бујица Крагујевац", Крагујевац, 1973.год. Корито је димензионисано на петстогодишње велике воде , $Q_{max\ 500}$= 44,2 м^3/с). Овим пројектом била је предвиђена регулација до аутопута и колико је стручној служби познато изведена је до аутопута али се не одржава (водоток II реда у надлежности локалне самоуправе). Регулисано корито је ширине у дну 3,0м, висине 1,4м са нагибом косина 1:1.

1.4.Остали подаци

- По Уредби о категоризацији државних путева ("Сл.гласник РС", бр.105/13 и 119/13) предметна деоница је део државног пута I-А1 реда, државна граница са Мађарском - Нови Сад - Београд - Ниш - Врање - државна граница са Македонијом.
- Пројекат рехабилитације путева и унапређења безбедности саобраћаја је пројекат подршке међународних финансијских институција (Светске банке, Европске инвестиционе банке и Европске банке за обнову и развој) Влади Републике Србије у имплементацији Националног програма рехабилитације државне путне мреже. Овај пројекат представља реализацију прве фазе Владиног програма за период 2014-2019. година и обухвата:
  - унапређење стања државне путне мреже кроз рехабилитацију око 1100км постојећих путева,
  - подизање нивоа безбедности на путевима кроз примену мера за унапређење безбедности саобраћаја у свим фазама имплементације Пројекта и
  - јачање капацитета и унапређење институционалне координације у области безбедности саобраћаја кроз имплементацију већег броја различитих услуга.

2. Подаци од значаја за издавање водних услова

- Циљ израда техничке документације појачаног одржавања државног пута је израда Главног пројекта којим се обезбеђује:
  - повећање употребне вредности и трајности пута,
  - унапређење безбедности саобраћаја,
  - укључење захтева локалне заједнице (социјални аспект) и поштовање захтева заштите животне средине у максималној могућој мери у датим условима просторног ограничења (контекст деонице)
  - ограничења која произилазе из врсте дозвољених грађевинских и саобраћајних интервенција (законски основ).
- Главним грађевинским пројектом појачаног одржавања пута планира се да се дефинишу:
  - елементи ситуационог плана, подужног и попречног профила (радијусе хоризонталних и вертикалних кривина, скретне углове, подужне и попречне нагибе и др.), који обезбеђују прописану прегледност пута;
  - геометријска пројектна решења рехабилитације коловоза (санација оштећења површине коловоза, корекција облика постојећег коловозног застора или коловоза, наношење нових слојева, прерада застора, стругање и наношење нових слојева и др.) и предетавити у адекватној размери;

  - решење одводњавања коловоза;
  - решење одводњавања трупа пута,
  - решења прикупљања и одвођења кишних и процедних вода са околног терена,
  - нивелациона решења пратећих садржаја (прикључака осталих путева, аутобуских стајалишта, бензинских станица и паркиралишта) у путном појасу пројектоване деонице.
- Сви планирани радови су у оквиру постојећег путног појаса без експропријације нових површина земљишта. Изузетно, уколико пројектоване мере неопходне за отклањања опасних места на микролокацијама предметне деонице захтевају експропријацију нових површина, односно излазе изван постојећег путног појаса, пре усвајања коначног решења обавезно је прибављање претходне сагласности Наручиоца.
- Инвеститор планира да са гледишта одводњавања изврши оцену функционалног стања: банкина, ригола, каналета, ивичњака, јаркова, пропуста дренажа и осталих елемената система за одводњавање. Оцена стања састоји се у прикупљању индикатора стања визуелним прегледом и оцени стања сваког елемента система за одводњавање која подразумева евидентирање:
  - топографије терена (усек/насип);
  - нагиба коловоза и банкина;
  - геометрију и стање канала и јаркова;
  - ефикасност система за одводњавање.
- На елементима система за одводњавање планира се евидентирање постојање структурних оштећења. Са становишта одводњавања хидрауличким прорачуном планира се провера капацитета система за одводњавање уз коришћење података из хидролошких и хидротехничких истражних радова.
- Планира се давање оцене врсте и степена утицаја постојећег стања система за одводњавање на појаву уочених структурних и површинских оштећења пута, и на основу оцене стања предлажу се решења за унапређење система за одводњавање.
- Наведене регулације нису у зони аутопута али због непосредне близине, габарити и начин регулације могу користити пројектанту у циљу изналажења прихватљивих решења.

На основу наведених података урадити пројектну документацију:

- У свему према постојећим важећим законским прописима, као и важећим нормама за ову врсту радова;
- За све хидрауличке прорачуне који се односе на одводњавање атмосферских вода као и хидротехничке грађевине (мостови, пропусти, канали за одводњавање и др.) треба користити хидролошке податке добијене у Мишљењу РХМЗ-а, а уколико се прибављају водни услови од Републичке дирекције за воде;
- Приликом рехабилитације не вршити смањење светлог отвора мостова и пропуста и извршити рачунску контролу пропусне моћи ових објеката. Мостови и пропусти треба да задовоље меродавну рачунску велику воду појаве једном у 100 година $Q_{1\%}$, (РХМЗ).
- Уколико се планирају радови већег обима који подразумевају значајне радове у постојећим водотцима, а који могу имати већи утицај на режим вода инвеститор се мора обратити посебним захтевом за сваки такав објекат посебно.
- У пројектној документацији у графичким прилозима потребно је уцртати положај моста, попречне и подужне пресеке као и остале детаље из којих се може сагледати утицај евенуалних радова на рехабилитацији, на режим вода као и утицај вода на објекат - радове;
- Пројектом предвидети технологију извођења радова у зони водотока којом се не ремети нормалан режим течења (постављање скела и других препрека у водоток).
- У случају да се планира реконструкција мостова-пропуста или неке друге интервенције на њима које подразумевају промену конструктивних карактеристика или смањење

протицајног профила, неопходно је да се обратите посебним захтевом какао би за те радове дали своје мишљење;
- Приликом изградње није дозвољено депоновање, одлагање било каквог материјала у водотоцима нити смањења њиховог протицајног профила;

Сагледавајући изложено, стручна служба овог предузећа издала је Мишљење на основу наведеног Закључка (бр.325-службено од 27.09.2016.год.). Стручна служба напомиње да су у међувремену вршене измене и допуне Закона о водама ("Сл.гласник.РС" бр. 30/2010, 93/12 и 101/16).

Уз захтев је достављена следећа документација:
- Прегледна карта државни пут IA1 реда, деоница: Алексинац 1- Ражањ I, л=23,645 км;

доставити:
- Инвеститору,
- Министарству,
- архиви.

директор

.....

мр Драгољуб Миљојковић, дипл.грађ.инж.