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Road Rehabilitation and Safety Project

Rehabilitation and maintenance of I and II category State roads in the Republic of Serbia

ENVIRONMENTAL MANAGEMENT PLAN

for

Main Design for Heavy Maintenance
of the State Road IB no. 35
(old road mark M-25),
section: Merosina – Prokuplje (Orljane)
Chainage: km 207 + 502 – km 219 + 005
Length: 11.503 km

- Environmental Category B -

Draft
Belgrade, May 2018

CONTENTS

ABBREVIATIONS AND ACRONYMS

CEP	Contractor's Environmental Plan
CM	Cadastral Municipality
EMP	Environmental Management Plan
BoQ	Bill of Quantity
WB	The World Bank
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ESAP	Environmental and Social Action Plan
EHS	Environmental, Health and Safety
H&S	Health and Safety
IFIs	International Financing Institutions
INC	Institute for Nature Conservation
IPCM	Institute for Protection of Cultural Monuments
MoEP	Ministry of Environmental Protection
MoCTI	Ministry of Construction, Transport and Infrastructure
NGOs	Non-Governmental Organisations
OP	Operational Policy
PERS	Public Enterprise "Roads of Serbia"
PPE	Personal Protective Equipment
PSC	Project Supervision Consultant
RE	Resident Engineer
RRSP	Road Rehabilitation and Safety Project
SE	Site Engineer
SLMP	Safety and Labour Management Plan
SSIP	Site Specific Implementation Plan
ToR	Terms of Reference
RAP	Resettlement Action Plan

INTRODUCTION

The Environmental Management Plan (EMP) has been prepared for the proposed Design for heavy road maintenance of the State Road IB no. 35, section Merosina – Prokuplje (Orljane), in order to ensure application of the good environmental practice and document compliance with the requirements of the International Financing Institutions (IFIs) which will finance this Project.

The road section is 11,503 km long, between chainages km 207+502 and km 219+005. The Project has been classified as Environmental Category B. i.e. a project requiring an EMP pursuant to IFIs Safeguard Policies.

The Project Proponent is the Government of Serbia, acting through its Ministry of Environmental Protection (MoEP). 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: Mitigation Plan and Monitoring Plan.

Project will comply with Serbian legislation, procedures and policies, international conventions and IFIs safeguard policies.

The activities related to subsequent regular maintenance of this section are not the main focus of this EMP, but are presented here with for the purpose of completeness.

The preparation of this EMP was undertaken through a desk study and field investigations, including consultations with regional level representatives and local stakeholders. The EMP is based primarily on field investigations performed during October 2017.

EXECUTIVE SUMMARY

Project description

Road Rehabilitation and Safety Project (RRSP) represents the implementation of the first phase of the Government's National Road Rehabilitation Program, which is expected to rehabilitate about 1100 km of national roads across the country, from 2014 to 2019. The subject section is a part of the RRSP planned for heavy maintenance during the second year of the Project implementation.

Subject section is located in south - southeastern Serbia, Nisavski and Toplicki administrative districts and passes through the territory of the Municipality of Merosina and the municipality of Prokuplje. The section belongs to the State Road IB no. 35 (old road mark M-25) ("Official Gazette of RS", No. 93/2015). It is an important traffic connection between border crossing Djerdap (State border with Romania) and southern Serbia, and with the province of Kosovo and Metohija as well. The section Merosina - Prokuplje (Orljane) connects the Municipality of Merosina with nearby villages Jugbogdanovac and Nova Bozurna, as well as with the Municipality of Prokuplje (Figure 0.1).

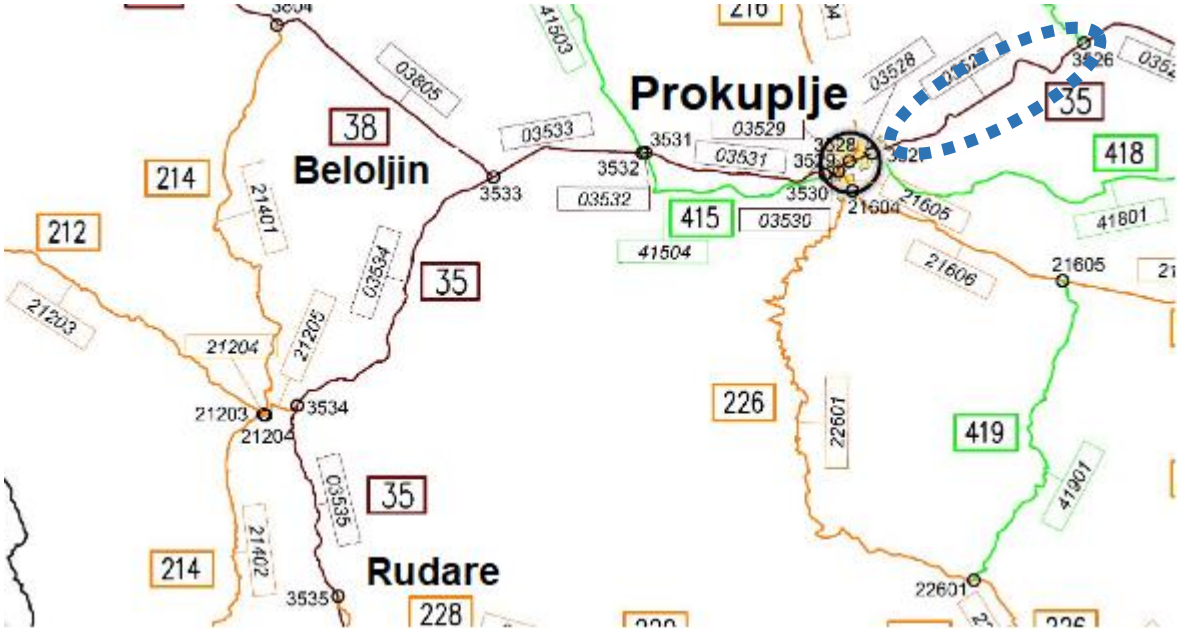


Figure 0.1: Extract from the state roads reference system map, December 2015

The beginning of the section is defined 500 m before the node 3526 Merosina (M.Jastrebac), observed in direction opposite of chainage increase (chainage km 207+502, figure 0.2). The end of the section is defined 800 m before the node 3527 Prokuplje (Orljane) observed in direction of chainage increase, i.e. at the end of the traffic lane for slow vehicles at the entrance in Prokuplje (chainage km 219+005, figure 0.2). The traffic lane for slow vehicles is in direction of Prokuplje – Merosina (direction opposite the chainage increase).

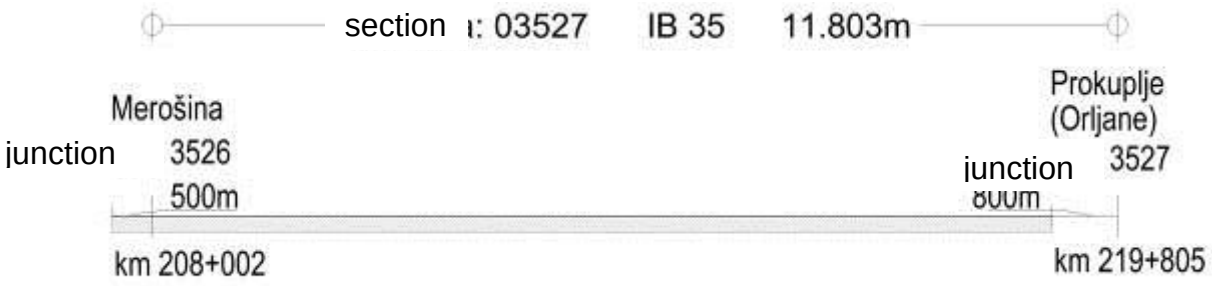


Figure 0.2: Scheme of the section foreseen for rehabilitation

The road section foreseen for rehabilitation is in the length of 11 503 m.

The subject section is located in south - southeastern Serbia, Administrative Districts of Nis and Toplica. It passes through the territory of the Municipality of Merosina Cadastral Municipality (CM) of Merosina, CM of Jugbogdanovac) and the territory of the Municipality of Prokuplje (CM of Nova Bozurna).

The main characteristic of the project area is hilly terrain, with an elevation of 300-350 m above sea level, with frequent variations in exposition. The terrain is naturally overgrown with forests and meadows, but over time, the forests have been cleared in order to create fertile land that is now used for agricultural production.

The economic strengths of the Municipality of Merosina are in a number of industrial plants which are based on the use of local natural resources. The most promising economic sector in the mentioned municipality is agriculture.

The Terms of References (ToR) state that the elements of a cross section, such as traffic lanes, edge strips, shoulders, gutters and benches, should be adopted in accordance with the applicable regulations and specific requirements of this ToR. By checking the existing condition, a predominant width of the carriageway exceeding 7 m was observed on the subject section, and since there are no spatial i.e. topographic limits, the width of the designed road will be 7.2 m.

During the determination of the axis of the road, the designer has been forming the axis which as much as possible corresponds to the existing status. The existing status should not be changed. The geometric elements of the alignment of the road should be integrated with each other and comply with the regulations.

The works foreseen by this design will be implemented within the right-of-way of the existing road.

The project entails no resettlement and land acquisition as defined by OP 4.12, nor long lasting disruptions to the natural environment and human settlements and activities.

Policy, legal and administrative framework

MoEP is the key institution in the Republic of Serbia responsible for formulation and implementation of environmental policy matters.

The environmental legislation currently in force in Republic of Serbia is summarized in Appendix III.

In the Republic of Serbia, the Environmental Impact Assessment (EIA) procedure is regulated by the Law on EIA, which is completely in line with European EIA Directive - 85/337/EEC. PERS has submitted a Request for an opinion on the assessment of the project's impact on the environment to the MoEP. Based on the obtained condition (no. 011-00-381/2017-02 Appendix V - Conditions from relevant public institutions), the EIA Study is not required.

Based on the decision (no. 020-751/3) issued by the Institute for Nature Protection (INC) of Serbia (Appendix V - Conditions from relevant public institutions), the section Merosina - Prokuplje (Orljane) is not located within the protected area for which the protection procedure has been implemented or initiated. Subject works can be implemented under the conditions defined by this decision.

Based on the decision (no. 404/3) issued by the Institute for Protection of Cultural Monuments (IPCM) Nis (Appendix V - Conditions from relevant public institutions), there are no registered archaeological sites or cultural monuments, on the road alignment. Likewise, works on heavy maintenance of the State Road IB No. 35, section Merosina - Prokuplje (Orljane) can be implemented under the conditions defined by the above decision.

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

- Operational Policy OP (4.01) Environmental Assessment;
- Environmental and Social Policy (2008), European Bank for Reconstruction and Development (EBRD);
- European Investment Bank (EIB): Statement of Environmental and Social Principles and Standards (2008).

EBRD and EIB will require that the project complies with the Republic of Serbia national laws and EU standards.

Baseline conditions assessed during route survey

Directly on the route Merosina - Prokuplje (Orljane), there is no protected natural good for which the protection procedure has been implemented or initiated. Based on the decision issued by the Institute for Nature Conservation of Serbia, works on heavy maintenance can be carried out in accordance with the issued conditions of nature protection. The IPCM Nis did not register archaeological sites or cultural monuments on the subject section. The Employer shall protect national cultural properties and archaeological sites, and act in accordance with the issued Conditions set forth by the IPCM Nis.

During the Project implementation, there will be no land acquisition, as defined by OP 4.12.

The total length of the road is 11,503 km. The section crosses the Krajkovacka River and the Jugbogdanovacka River as well.

The INC of Serbia has issued conditions which require that the Project foresees the placement of catch basins and separators of grease and oil for waters generated by leaching from the pavement, in particular on the parts of the section where it crosses the watercourses.

Therefore, in order to protect against pollution, the Design envisages controlled discharge of water from the carriageway by setting up separation systems at places where the section of the State Road IB No. 35 is in direct contact with the watercourse, i.e. in the area of bridges, and where purification of rainwater will be carried out.

There are no stations for the monitoring of surface water quality on Krajkovacka and Jugbogdanovacka rivers, as they are smaller watercourses. Due to the nature of the works on heavy road maintenance and with the construction of a drainage system that is in accordance with the required conditions of the INC of Serbia, the mentioned watercourses will not be under negative influence.

For the observed project area, there are no industrial facilities that would cause an increase in the level of pollutants in the atmosphere.

The existing traffic load (PGDS) for 2016 on the section Merosina - Prokuplje (Orljane) is 5685 vehicles/day.

The node named Merosina is located on the observed section (no. 3526 according to the reference system) and it represents the crossing of roads IB no. 35 and IIB no. 417 thus establishing a connection with the Oblacina Lake. The end node called Prokuplje (Orljevo) and marked 3527, represents a crossing with the road IIB No. 418.

The dominant noise source in the observed area is the existing road IB no. 35, as a linear source of noise.

Summary of environmental impacts

The possible temporary adverse impacts reslting from construction activities would consist of: disruption of current traffic flow, reduced roadway safety, damage to access roads, dust, and gaseous emissions, potential pollution of soils and water resources, brief disturbance to biota, and momentary interference to neighboring settlements through various operation activities. Off-site activities include quarry, borrow pit and asphalt plant operations, which if not managed properly, may cause localized adverse impacts. The Contractor’s yard and workers’ camp can be potential sources of temporary adverse impacts on the environment.

No relocation and resettlement issues are anticipated by OP (4.12).

In respect to future use, the section is an important traffic connection between border crossing Djerdap (State border with Romania) and southern Serbia, and with the province of Kosovo and Metohija as well. The section Merosina - Prokuplje (Orljane) connects the Municipality of Merosina with the nearby villages Jugbogdanovac and Nova Bozurna, as well as with the Municipality of Prokuplje. As a result of the rehabilitation, road traffic is not expected to increase. In respect to impact of the potential increase of vehicle speed on rehabilitated roads, this issue will be addressed through the project's road safety component, which will

include implementation of active and passive measures to control vehicle speed on rehabilitated road sections.

Local residents will be affected with air and noise pollution during the heavy road maintenance works.

Various cases of water contamination can occur during the rehabilitation of the road and future operation. Wastewater discharged during the construction works can jeopardize the quality of surface and underground water. Adequate mitigation measures and monitoring activities are planned, in accordance with the Law on Water ("Official Gazette of the RS", 30/10 and 93/12). As for the potential pollution during operation, these are limited to accidents only. In such a case, procedures for action in incidental situations, as defined by the Ministry of Interior and in the Law on Water, will apply.

The drainage of water is planned with piping systems where necessary, as well as by free overflowing over the shoulder of the State Road on the rest of the section. The treatment of rainwater is planned with separators that will be installed in all places where rainwater is discharged into local watercourses, so that the existing biological balance would not be disturbed.

All gutters and drainage channels are directed towards the culverts.

Based on the forecasted traffic load, the expected quantities of drained water, as well as based on the method of drainage and treatment of rainwater, the impact on the water quality of the Krajkovacka and Jugbogadanovacka River is expected to be minimal to negligible.

The proper implementation of the EMP measures, as listed in Appendix I (Mitigation Plan) would offset or minimize any impact on local human and biotic environment that might be related to any long-term cumulative negative effects.

Environmental management plan

Possible environmental impacts will be mitigated during the design, works, and road operation phases, as summarized in the EMP as shown in Appendix I.

Based on the assessment of the proposed heavy maintenance project, it was concluded that the adverse impacts will be negligible if the mitigation measures are properly implemented. The EMP consists of 3 parts, Mitigation Plan (Appendix I), Monitoring Plan (Appendix II) and Stakeholder Engagement and reporting from public consultations (Appendix IV).

Before commencing the work, the Contractor will prepare a Contractor‘s Environmental Plan (CEP). During the heavy maintenance, the Contractor will execute the works according to the requirements of the CEP (based on the EMP). The CEP explains in detail how the Contractor will address the activities in the heavy maintenance section of the EMP. The contractor will submit the CEP to PERS for approval.

The findings and proposed mitigation measures have been compiled into the Mitigation Plan (Appendix I). It summarizes all the anticipated environmental impacts and its associated mitigation measures during the design, works and operational phases. It makes reference to the laws and contract documents, approximate location, timeframe, and the responsibility for its implementation and supervision.

It is the Contractor's obligation to include implementation of environmental mitigation measures in his overall cost. The Contractor will be required to provide a short statement that confirms that:

- The EMP has been included into the bid price.
- The Contractor has a qualified and experienced person on the Contractor's 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.

PERS is in charge of issuing and enforcing fines and penalties for any non-compliance with the contract.

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

1. Environmental issues to be monitored and the means of verification;
2. Specific areas, locations and parameters to be monitored;
3. Applicable standards and criteria;
4. Duration and frequency;
5. Institutional responsibilities for monitoring and supervision.

Stakeholder engagement - Information disclosure, consultations and public participation

As required by IFIs Safeguards Policies, public consultations will be undertaken during the preparation of EMP.

Summary of public disclosure process

The EMP will be submitted for public review and public consultations will be held as well. Upon completion, report from the public consultations will be added to this EMP document.

1. PROJECT DESCRIPTION

RRSP represents the implementation of the first phase of the Government's National Road Rehabilitation Program for the period of 2014-2019 from which it is expected to rehabilitate about 1100 km of national roads across the country. The subject section is a part of the RRSP planned for heavy maintenance during the second year of the Project implementation.

The main objective of the RRSP is to provide support to the Government of the Republic of Serbia in improving the efficiency and safety of traffic within the network of arterial and regional roads. This will be achieved through improvement of one part of the road network, proportional to the increase of implementation of efficient solutions in the management of the resources of the road economy, through the institutionalization of the principles of road safety design and control of traffic safety as well as by strengthening the institutional capacities of the PERS.

Location Description

The proposed section belongs to the Nisavski and Toplicki Administrative district, and is located in the southeast and south part of the Republic of Serbia.

The section belongs to the state road of IB category no. 35. All chainages are provided in accordance with the Reference System from December 2015.

The Main Design for Heavy Maintenance is performed in the length of 11,503 km. The beginning of the section is defined 500 m before the node 3526 Merosina, observed in direction opposite of chainage increase (chainage km 207+502). The end of the section is defined 800 m before the node 3527 Prokuplje (Orljevo) observed in direction of chainage increase, i.e. at the end of the traffic lane for slow vehicles at the entrance in Prokuplje (chainage km 219+005). The traffic lane for slow vehicles is in direction of Prokuplje – Merosina, direction opposite the chainage increase (Figure 1.1).

Figure 1.1 - Location of the section of the State Road IB no.35

The following settlements are located along the section: Merosina, Jugbogdanovac (Municipality of Merosina) and Nova Bozurna (Municipality of Prokuplje).

Merosina is located in the western part of the Nis basin (Niska kotlina). The municipality is known for its agriculture, especially for the cultivation of Sour Cherry of Oblacina. The municipality has 27 settlements where, according to the 2002 census, there are 14 812 inhabitants. Its area is among the smallest municipalities in Serbia, which is not the case with the population density. With an average density of 130 inhabitants/km^2, it ranks among the densely populated areas. It is located on the valley sides of the Krajkovacka River, the left tributary of South Morava (230-260 m above sea level).

Figure 1.2 – Beginning of the section

Jugbogdanovac is a settlement in the Municipality of Merosina in the Nisava administrative district. Farming, cattle-breeding and fruit-growing rural settlement on the valley sides of the Jugbogdanovacka River, the left tributary of South Morava. It is located at 300-320 m above sea level.

Nova Bozurna is a settlement in the Municipality of Prokuplje in the Toplica administrative district. It is a suburban farming settlement on the valley sides of the periodic Gradski stream, the left tributary of the Toplica River. It is located at 340-360 m above sea level.

Figure 1.3 – End of the section

From the beginning of the section, except in inhabited parts of the section, plough-lands, orchards and vineyards are predominant which are intersected by smaller lots where the autochthonous meadow vegetation is maintained. Near the Krajkovacka and Jugbogdanovacka rivers, there are degraded small forests, which spread along the banks.

On the observed section, there is an intersection with State Road IIB no. 417 (M.Jastrebac node) and an intersection with State Road IIB no. 418 (Orljane node).

From the beginning to the end of the subject section of the State Road IB no. 35, there are two smaller river courses that intercept it at the following chainages: ~ km 208+500 - Krajkovacka River and ~ km 215+400 - Jugbogdanovacka River (Figure 1.4).

Figure 1.4 – Position of the watercourses in relation to the subject State Road IB no. 35

Figure 1.5 – bridge over the Krajkovacka River

Figure 1.6 – bridge over the Jugbogdanovacka River

Existing state of drainage system requires thorough cleaning of ditches and culverts of accumulated waste and vegetation.

As for the potential pollution during operation, these are limited to accidents only. In such a case, procedures for action in incidental situations, as defined by the Ministry of Interior and in the Law on Water, will apply.

Description of rehabilitation works

Based on the analysis of traffic safety (primarily data analysis on the type of traffic accidents) and the structure of traffic flow, the causes of traffic accidents are primarily:

- the disregard of traffic regulations and

- inadequate traffic signage.

On the largest part of the section, the width of the traffic lane tv = 3.25 m and the width of the edge lane tiv = 0.35m were adopted, which makes the total width of the carriageway equal 7.20 m. The extensions of the carriageway were performed at places where it was necessary to provide space for passing of two trucks. Design level was defined so it would be adapted as much as possible to the existing condition.

Based on determined condition of pavement, the following strategies of pavement rehabilitation have been adopted:

- partial repair that foresees removal of the existing pavement and construction of new asphalt layers;
- construction of new layers of pavement.

All culverts and bridge spans are of a satisfactory capacity. The only intervention from a hydro-technical aspect involves cleaning of the deposited material in the said zones, in order to achieve smooth drainage.

The design entails no resettlement and land acquisition, nor long lasting disruptions to the natural environment and human settlements and activities.

The drainage system maintains the existing concept (gutters, free runoff of atmospheric water from the carriageway over the shoulder), except at locations where tube systems for the reception of wastewaters and separators for their treatment are foreseen.

Drainage of atmospheric water from the pavement surfaces is provided in both directions, from the uphill side, longitudinally by gutters and drainage ditches, and transversally through the culverts below the carriageway up to the recipient.

It is envisaged that the wastewater is conducted from the pavement to the recipient in a controlled manner through tube systems, where necessary, and is treated using separators. On the rest of the section, atmospheric waters from the pavement surfaces will runoff freely over the edge of the carriageway.

The treatment of wastewater is planned with separators that will be installed in all places where rainwater is discharged into local watercourses, so that the existing biological balance would not be disturbed. In these places, separation systems will be installed, in accordance with the Conditions issued by INC of Serbia. The extent of purification at the plants should be such to provide the existing water quality of the rivers Krajkovacka and Jugbogdanovacka. Separation systems are envisaged at chainages: km 208 + 462.82 and km 215 + 339.83.

2. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORKS

Relevant Institutions

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

The other aspects of environmental management related to road rehabilitation projects are dealt by several other institutions, among which are the INC of Serbia and the IPCM of the Republic of Serbia, as well as the PERS.

Existing Serbian legislation

Environmental protection in the Republic of Serbia is regulated by several national laws and by-laws. The environmental legislation in force in Serbia is summarized in Appendix III.

EIA procedure in the Republic of Serbia

In the juridical system of the Republic of Serbia, the EIA procedure is regulated by the Law on EIA, which is completely in line with European EIA Directive - 85/337/EEC. Therefore, EIA is not required for road rehabilitation projects unless their alignment is placed within or in the vicinity of natural/cultural protected areas. The Designer, on behalf of PERS, shall acquire the conditions of the INC (Insitute for Nature Conservation) of the Republic of Serbia and the competent IPCM under which the project can be carried out. After that, the Designer prepares and delivers to the PERS the Request for issuing an opinion on the need for EIA, together with the obtained conditions of the competent institutions, in order for the PERS to contact the competent ministry for the opinion. In the event that the ministry prescribes the obligation to implement the EIA procedure, the Designer is obliged to prepare and submit to the PERS a Request for decision on the need for EIA.

Based on the above mentioned criteria, the MoEP stated that this project does not require the Study on EIA (Appendix V).

Relevant IFIs Policies and Statements

As the road rehabilitation will be funded by IFIs the following Lender requirements will need to be applied to any works:

- The World bank (WB): OP 4.01 Environmental Assessment, which require partial EIA and development of site specific EMPs for projects belonging to Category B;
- EBRD: Environmental and Social Policy 2008;
- EIB: Statement of Environmental and Social Principles and Standards (2008).

EBRD and EIB will require that the project complies with the Republic of Serbia national laws and EU standards.

Accoridng to the WB guidelines, a partial EIA and EMP are required for the heavy maintenance projects such as the subject project.

3. BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY

Road section Merosina – Prokuplje (Orljane) in the length of 11,503 km goes through the territory of the municipalities of Merosina and Prokuplje.

The Highway Institute JSC Belgrade conducted a roadway investigation as an integral part of the design activities on several occasions during September and October 2017 and carried out a detailed assessment of the condition of the section Merosina – Prokuplje (Orljane).

Natural resources and cultural heritage

Directly on the section Merosina - Prokuplje (Orljane), there are no protected natural and cultural properties that could be affected by the heavy maintenance project.

Pursuant to the Decision of the INC of Serbia (no. 020 - 751/3 of 03.03.2017.) the conditions for nature protection were issued. Such solutions and measures that provide for the preservation of air, soil, underground and surface water should be implemented.

In the Conditions issued by the IPCM Nis (Decision number 404/3 from 20.04.2017.), the requirements for undertaking technical protection measures, in order to preserve the immovable cultural property and archaeological sites have been determined.

Technical protection measures can be implemented under the conditions that the design envisages excavation works on the route itself or on its widening. The Employer shall provide a constant archaeological supervision during the execution of earth works. In the event that, during earth works, an unrecorded archaeological site or its part is discovered, the Employer is obliged to immediately stop the works and inform the IPCM Nis without delay, to provide conditions for archaeological research, preservation and presentation. The Employer is obliged to provide funds for research, protection, preservation, publication and presentation of the same.

No new land acquisition is planned during the project implementation.

Settlements

The following settlements are located along the section: Merosina, Jugbogdanovac and Nova Bozurna.

Merosina is the center of the homonymous municipality and a gravitational center of secondary significance on both sides of the road Nis - Pristina (Figure 3.1).

Figure 3.1 - Entrance in the settlement of Merosina

After entering the settlement of Merosina, on the left side, there is a preschool institution "Poletarac". There is also a primary school "Jastrebacki partizani" (Figure Figure 3.2 and Figure 3.3).

Figure 3.2 - Primary school "Jastrebacki partizani" in Merosina

Figure 3.3 - Preschool institution "Poletarac"

After that, on the right side of the subject State Road IB no. 35, there is a gas station behind which an intersection with the road that leads to Oblacina Lake is located.

Municipal building of Merosina is in the continuation of the subject State Road IB no. 35 on the left side (Figure 3.4).

Figure 3.4 - Municipality of Merosina

Figure 3.5 - Tavern with accommodation

After the bridge, there is a catering facility called "Mackov konak" (Figure 3.5) and on the way out of the settlement of Merosina, on the left side of the State Road IB no. 35, there is a factory for repurchase and recycling of pet packaging (Figure 3.6) .

Figure 3.6 - Recycling of pet packaging

The road continues through agricultural land (plow-lands, orchards) without settlements and industry.

After several kilometers, there is Jugbogdanovac, which represents a farming /cattle-breeding and fruit-growing rural settlement, on the valley sides (most of it on the left) of the Jugbogdanovacka River, on both sides of the Nis - Pristina road. It is located in the Municipality of Merosina, 8 km southwest of Merosina, and according to the 2002 census it has 474 inhabitants.

Figure 3.7 - Entrance in the settlement of Jugbogdanovac

Figure 3.8 - Primary school in Jugbogdanovac - isolated class of Primary School "Jastrebacki partizani"

Before reaching the suburban settlement of Nova Bozurna, on the right side of the road, a smaller unauthorized landfill (municipal waste and detritus) was spotted, and on the left side of the road, a warehouse and a wholesale of tires. Immediately after there is "Agrotop Komerc d.o.o." -a wholesale store for pesticides, seed products, foliar and water-soluble fertilizers, as well as all other accompanying production materials for agriculture.

Figure 3.9 - Warehouse and a wholesale of tires

Figure 3.10 - "Agrotop Komerc d.o.o."

Figure 3.11 - Entrance in the settlement of Nova Bozurna

Nova Bozurna is a suburban farming rural settlement, on the valley sides of the periodic Gradski stream, the left tributary of Toplica, on both sides of the road Merosina - Prokuplje.

Watercourses

In the corridor of the observed section there are Krajkovacka and Jugbogdanovacka Rivers, which belong to the river basin of South Morava (Figures 3.12, 3.13 and 3.14). The mentioned rivers intercept the route of the State Road IB no. 35.

Figure 3.12 - Flow of Krajkovacka and Jugbogdanovacka Rivers

There are two bridges on the route that are planned for rehabilitation.

Structure name	Chainage (km)	length (m)	obstacle
Bridge over the Krajkovacka River (Figure 3.13)	208 + 470.80	16,70	river
Bridge over the Jugbogdanovacka River (Figure 3.14)	215 + 348	16,30	river

Figure 3.13 - Bridge over the Krajkovacka River

Figure 3.14 - Bridge over the Jugbogdanovacka River

Drainage of atmospheric water from the pavement surfaces is provided in both directions, from the uphill side, longitudinally by gutters and drainage ditches, and transversally through the culverts below the carriageway up to the recipient.

All gutters and drainage channels are directed towards the culverts. Wastewater is conducted in a controlled manner to the recipient and purified.

On the alignment of the road, there are several box culverts for occasional torrential streams.

There is no data available on the quality of surface waters on the subject section of the State Road, given that there are no measuring stations on Krajkovacka and Jugbogdanovacka rivers.

As a result of proper implementation of mitigation and monitoring plans, watercourses will not be affected by the works.

Air

In the corridor of the section Merosina - Prokuplje (Orljane), there are no point sources of air pollution. There are no industrial plants that affect air pollution.

PERS will monitor all Contractors activities, including possession of valid working permits and environmental approvals for all subcontractors.

Data on the measured values of air pollution in the observed corridor were not available.

Based on experience and expected traffic load, during and after the heavy road maintenance works, an increase of the current levels of air pollutants is not expected.

Roads and Railways

On the subject section of the State Road IB no. 35, there is Merosina node (number 3526, crossing with the road IIB no.417), then Prokuplje node (number 3527, crossing with the road IIB no. 418) as well as accesses from municipal roads and unclassified roads.

Noise

Based on experience and expected traffic load, the planned heavy maintenance works, and operation of road after heavy maintenance, will not increase the levels of noise within the proposed road section.

4. SUMMARY OF ENVIRONMENTAL IMPACTS

The following table provides a summary of the Environmental Impacts that are predicted for the project impact.	significance	comment
impacts on land use/ settlements	low	No land acquisition is planned within the project implementation.
ground and surface water	low	Due to low amount of drainage water, that can be drained into the recipient and with the installation of the separator, the consequential negative impact is minimal to negligible.
air quality	low	Temporary impact
flora and fauna (protected areas and species)	low	According to the recommendations prescribed in the framework of the conditions obtained from the INC of Serbia; There are no protected areas.
noise,	low	Temporary impact
access/crossing points of the main road and local roads	low	Heavy maintenance works won't affect existing crossing points.
land management	low	With the application of appropriate measures of waste management.
waste	low	Ensured through waste management - Waste and wastewater management plan will be prepared and

The following table provides a summary of the Environmental Impacts that are predicted for the project impact.	significance	comment
		implemented.
cumulative impacts etc.	moderate/low	Temporary, heavy maintenance works may cause a slight increase of noise levels and air pollutants concentration during the works.

Project for heavy maintenance works on the proposed section Merosina – Prokuplje (Orljane), will only have minor impacts on the environment (environmental category B). Most of the impacts are of temporary character and they disappear after the heavy maintenance works are completed.

In respect to future use of the rehabilitated road section - this section belongs to the local and regional roads network, on which significant increase of road traffic as a result of heavy maintenance works is not expected. In respect to impact of the potential increase of vehicle speed on the observed section, this issue will be addressed through the project's road safety component. The project's road safety component will include implementation of active and passive measures to control the vehicle speed.

The possible temporary adverse impacts as consequence of the construction activities will consist of: disruption of current traffic circulation; roadway safety; damage to access roads; noise, waste and dust nuisance; and air emissions; potential impacts of soils and water resources; momentary disturbance to biota, and interference to neighboring settlements. Off-site activities include borrow pit and asphalt plant operations, which if not managed properly, may cause localized adverse impacts. The Contractor's yard and workers' camp can be potential sources of temporary adverse impacts.

This site specific EMP is focusing more on the rehabilitation phase of the selected project, as it will become part of the respective Contract for the implementation of civil works, and as such, the future Contractor's obligation. The activities related to subsequent regular maintenance of this section are not the main focus of this EMP, but are presented here for the purpose of completeness.

Air and noise pollution within the residential areas

It is expected that the local population in the immediate vicinity of the subject section of the State Road IB no. 35 Merosina - Prokuplje (Orljane) will be exposed to air pollution and increased noise levels during the heavy maintenance works. The residential buildings are present on the section and they are located at the beginning of the section (settlement of Merosina), followed by the settlement of Jugbogdanovac (Figure 4.1) and the suburban settlement of Nova Bozurna. In the rest of the subject section of the State Road, individual structures are present, and these are mainly smaller service providers (building supplies shops, sale of animal

feed) or the wholesale of car and truck tires, as well as the wholesale of pesticides, seed products, foliar and water-soluble fertilizers ("Agrotop Komerc d.o.o.").

Figure 4.1 - Jugbogdanovac settlement with grouped structures

Local air quality may experience some moderate and temporary deterioration due to dust from construction traffic and elevated levels of nitrogen oxide (NOx) and sulphur oxide (SOx) from construction equipment exhaust as the primary pollutants. The dust may settle on vegetation, crops, structures and buildings.

Noise caused by the heavy maintenance works will only be a temporary impact. However, when it comes to planned works on heavy maintenance of the state road IB no. 35 it is required to limit the activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public authorities). Furthermore, the operation of equipment with built-in noise suppressors, sound barriers in noise-making works lasting for more than one day at the same location should be foreseen. The Contractor, as a mitigation measure, i.e. for avoiding/minimizing dust emissions on the construction site, is required to undertake wetting of problematic surfaces on the construction site, periodically and depending on weather conditions.

Potential water contamination

Cases of water contamination may occur during the rehabilitation of the road from site run off, spills of liquids from the equipment maintenance areas and sanitary wastewater effluent from the work camps.

As for the potential pollution during operation, these are limited to accidents only. In such a case, procedures for action in incidental situations, as defined by the Ministry of Interior and in the Law on Water, will apply.

Fuel and lubricant spills can, in most instances, occur at the Contractor's work camp and motorpool while maintaining and washing equipment and work vehicles. The oily wash-water should be passed through an adequately sized, gravity oil separator prior to discharge.

Should spills occur in any part of the road, especially where it crosses watercourses or comes in line contact with them, to mitigate the problem the Contractor should use absorbing materials, such as absorbent mats/fabrics, or sand and scrape off the contaminated soils and dispose them in approved facility, in accordance with the Law on water ("Official Gazette of RS", no. 30/10 and 93/12).

Potential cumulative impacts

During field investigation and development of the EMP, special attention was given to activities that potentially could lead to negative cumulative effects.

Since the potential source of pollution, in the observed area, is only the rehabilitated section of the State Road IB no. 35, there are no cumulative impacts.

5. ENVIRONMENTAL MANAGEMENT PLAN

Possible environmental impacts will be mitigated during the design, before and during the heavy maintenance and operation phase, as summarized in the EMP.

A basic assessment of the proposed road rehabilitation project concluded that the rehabilitation impacts would be minor, reversible and manageable if the mitigation measures as given in the EMP are properly implemented. The EMP (Appendix I and Appendix II) is based on the type, extent and duration of the identified environmental impacts. PERS (the Implementing Agency) will monitor the design, supervision engineers and Contractor on the implementation of the EMP.

A. MITIGATION PLAN

The findings and proposed mitigation measures have been compiled into an Environmental Mitigation Plan (Appendix I). It summarizes all the anticipated environmental impacts and its associated mitigation measures during the design, rehabilitation and operational phases. It makes reference to the law and contract documents, approximate location, timeframe, and the responsibility for its implementation and supervision.

Contractor Management

The recommendations and proposed mitigation measures are shown in Appendix I. Mitigation measures will be incorporated as an integral part of the design and execution of works on heavy maintenance, and as such, their costs will be included in the rehabilitation price.

Experience shows that inadequate application of the EMP by the Contractor may occur due to weak linkages of the EMP with the contract documents. The EMP is a part of the work program and as such, it must be addressed by the Contractor and carried out as required.

The Contractor will use this document to check his compliance with the EMP. It is the Contractor's obligation to calculate the implementation of environmental mitigation measures in his overall cost.

The Contractor will be required to provide a short statement that confirms that:

- The EMP conditions have been included into the bid price;
- The Contractor has a qualified and experienced person on the Contractor‘s 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.

Design Phase

Mitigation measures will be incorporated as part of the standard design and heavy maintenance practices and, as such, their costs will be included in the heavy maintenance cost.

Site Organization Plan

The Plan of construction site organization is the responsibility of the Contractor and the obligation is to comply with it.

The considered section is not located within the protected area for which the process of protection is implemented or initiated. Accordingly, the Office for Environmental Protection of Serbia has issued the requirements relating to the organization of the site (Appendix V) and which must be taken into account during preparation of Site Organization Plan.

Preparation of site and establishment of facilities, applies to all of the Contractor‘s facilities such as: storage areas, workshops, concrete batching areas, asphalt plant, etc. The location and development of the Contractors facilities will be approved by the RE.

Taking into account the conditions of nature protection, legislation and environmental requirements when choosing a location and organization of the construction site, as well as during the actual construction, the following must be respected:

1. temporary locations for storing the necessary construction and other material and equipment need to be located outside the space with tall vegetation, as well as outside the flooding zones of Krajkovacka and Jugbogdanovacka Rivers, and limited only to the duration of the execution of works;
2. prohibit the disposal of any kind of waste, in particular the construction waste (temporary or permanent locations) in the coastal belt and in the riverbed itself (Krajkovacka and Jugbogdanovacka Rivers), as well as in the area with high vegetation;
3. after the completion of the works, provide that all areas, which were in any way degraded by construction and other works, are remedied as soon as possible;
4. during the execution of works strictly adhere to the corridor of the road so that when handling vehicles and machines, no consequences are left to the wider area;
5. use the existing road network without the construction of new roads, with the aim of preventing the fragmentation of space and the existing habitats;
6. during the execution of works, take all precautionary measures in order to protect the tree rows in the settlement or individual trees along the route from possible damage, such as breakage of the branches and removal of the bark from the trunk during the movement of machinery;
7. during the execution of works, maximally preserve the coastal belt of the rivers (Krajkovacka and Jugbogdanovacka Rivers), i.e. prohibit the destruction of coastal vegetation;
8. during the execution of construction works, in the immediate vicinity of residential buildings, plan a dewing in order to prevent dust lifting and negative impact on people;

9. prohibit the servicing of machinery and vehicles along the road alignment and the corridor; in case of accidental spills of fuel, oils/lubricants and other harmful substances, the surface must be repaired and returned to its prior state;
10. it is not allowed to perform work during the night hours in the inhabited area due to the possible noise impact from construction machines and vehicles;
11. envisage the setting up of the protective fences and pedestrian crossings and passages at the places where it is most appropriate, especially on the locations near settlements;
12. during the construction along the whole alignment maximum level of communal hygiene should be maintained. Define locations for containers for temporary storage of municipal waste;
13. the size of Contractor‘s facilities are to be limited to absolute minimum to reduce unnecessary clearing of vegetation;
14. the Contractor‘s facilities shall be contained within an adequate security fence;
15. asphalt surfaces, including areas for parking vehicles, workshops and fuel stores, are to be properly drained (dewatered). Collected water must be treated through a separator that separates oil and petroleum.
16. fuel storage areas must not be located within 20 m of a water course;
17. where fuel in excess of 5,000 litres is stored on site, it will be stored in sealed tanks on a concrete base that is designed to hold 110% of the tank capacity;
18. all waste oil, oil and oil filters will be collected and disposed of in secure landfill areas; At the closure of the site, all contaminated soil will be excavated and replaced with fresh topsoil;
19. cleared material is to be piled into manageable sized heaps, according to disposal or re-use requirements;
20. limit the extent of excavation to reduce the possibility of soil erosion; the Contractor will be responsible for ensuring that the erosion is contained by soil conservation protection methods;
21. apply soil conservation protection methodology to susceptible areas in order to minimize storm water runoff carrying eroded materials off-site;
22. avoid excavation and operating machinery in wet ground conditions;
23. upon the completion of all works, it is necessary to remove the machinery, construction materials, containers, spare parts and other equipment, as soon as possible;
24. if there has been a disturbance of the area along the route, it should be repaired (cultivate the terrain, or establish a vegetation cover with the application of appropriate species that are biologically stable under given climatic conditions).

PERS shall check through the engaged consultant for monitoring/supervision whether the requirements of the EMP and Management Safety Organization Plan are implemented at the site.

Mobilisation – Contractor's EMP

During the execution of heavy maintenance works, the Contractor shall work according to the requirements of the CEP (based on the EMP) which has been approved by PERS. Supervision and monitoring of the CEP activities will be undertaken as follows:

- The Contractor has the initial responsibility for preparing and implementing the CEP as agreed;
- The Resident Engineer (RE) will refer the Contractor to comply with the CEP;
- The PERS will carry out independent monitoring of the work and can issue Defect Notices to the RE who will transmit these to the Contractor;
- The Contractor will have his own representative on site – the Site Engineer (SE) who will be responsible for implementing the contract and complying with the CEP.

Before commencing the work, the Contractor will prepare a CEP. The CEP will address the conditions of the heavy maintenance in the EMP that has been attached to Contract Documents including measures in accordance with national legislation and Lender requirements.

The CEP will detail how the Contractor will address the activities in the heavy maintenance section of the EMP. The Contractor will submit the CEP to the PERS for approval.

Following the approval of the CEP, the Contractor together with the person on the Contractor‘s staff designated for supervising the CEP, will meet the Project Supervision Consultant PSC (Environment) on-site. If the Plan is appropriate and implementable, the PSC will advise the PE that the Contractor can then commence work.

Works on heavy maintenance

Technical specifications for work execution, which address environmental, health and safety protection measures:

- Preliminary works
- Rehabilitation works on the existing pavement
- Earth works
- Drainage
- Traffic signage systems

Environmental Management during heavy maintenance works

Considering all the identified impacts, it becomes essential for the Contractor to prepare, and later conscientiously implement the Contractor's EMP, in order to ensure compliance with legislative and Lender requirements. The emphasis of the Contractor's EMP shall be on the following:

- Layout of the work camp and details of the proposed measures to address adverse environmental impacts resulting from its existence.

Description and layout of equipment maintenance areas and lubricant and fuel storage facilities, including distance from water sources/bodies.

- Sewage and septage management plan for provision of sanitary latrines and proper sewage collection and disposal system to prevent pollution of watercourses.
- A plan (mechanism and organizational structure), detailing the means by which local people and other project affected persons can raise grievances arising from the rehabilitation process and how these will be addressed (e.g. through dialogs, consultations, etc., see Appendix IV, Project grievance mechanism).
- Soil Management Plan detailing measures to be undertaken to minimize effects of wind and water erosion, measures to minimize loss of fertility of topsoil, time frames, haul routes and landfills.
- Dust management plan which shall include schedule for water spraying on access road and in nearby settlements along the project route, as well as list of equipment to be used; This applies to all of construction sites and haul roads. During rehabilitation, when dust may be generated, the Contractor will monitor the worksite conditions and apply dust control measures, which include reducing construction traffic movements and spraying water on exposed areas.
- A plan indicating the location of the proposed material extraction site, as well as rehabilitation measures to be implemented for the borrow areas and access roads upon project completion.
- Waste and wastewater management plan. Disposal of waste materials: All construction waste materials including drums, lumber, sand and gravel, cement bags etc. are to be suitably disposed of. If this can not restore the old value of the area, these materials should be taken to an approved landfill sites for safe disposal. Hazardous waste will be stored and removed from the construction site in accordance with the Law on Waste Management (“Official Gazette of the RS” no. 36/09, 88/10 and 14/16). The Contractor’s Site Specific Implementation Plan (SSIP) should cover all aspects of waste management, including implementation of practice and standards such as reduce, re-use and recycle.
- The Waste Management Plan will, as a minimum, include details of temporary waste storage, waste transfer and pre-treatment prior to final disposal or recycling. Licensed/approved facilities for solid and liquid waste disposal must be used and a duty of care and chain of custody for all waste leaving the site will be followed. As part of the Plan, the Contractor will be expected to produce waste handling forms for chain of custody, which will be used to control waste leaving site. Thus, the waste controller will keep a copy of the form and the driver will always carry a copy and will ensure that the load is signed for at the final disposal site. All records will be kept by the Contractor for audit purposes and to demonstrate that the project is complying with best practice and applicable legislation.
- Oil and fuel storage management plan. The Contractor’s SSIP should cover all procedures for storage, transportation and usage of oils and fuels, refuelling of plant and machinery and procedures for minimizing the

risk of ground and water contamination. All oils and fuels will be required to be stored within secondary containment of 110 % capacity and all spillages shall be cleaned up immediately. Re-fuelling vehicles will carry Spill Kits to enable spillages to be cleaned up as soon as possible. All categories of spillage will be reported in accordance with the Plan.

- In-river works management plan. The Contractor's SSIP should cover procedures and plans for safeguarding aquatic habitats during in-river works along the Krajkovacka and Jugbogdanovacka Rivers.
- Site management plan. The Contractor's SSIP should contain procedures for establishing and operating construction sites in order to safeguard nearby communities and environmental resources.
- Emergency response plan. The Contractor's SSIP should contain procedures for emergency response in the event of accidents or major incidents, in order to safeguard people, property and environmental resources. Details of the spill response equipment to be provided on site are to be specified.
- Noise – all equipment is to be licenced and approved in accordance with EU standards. This applies to all machinery, vehicles and construction sites where noise and vibration may affect susceptible receptors. The Contractor will be responsible for ensuring that noise and vibration do not affect the adjacent communities, in accordance with the Law on noise protection ("Official Gazette of RS" no. 36/09 and 88/10). The Contractor will limit all the works from 07:00 to 19:00 h.
- Rehabilitation Plan. Clearance and rehabilitation of construction sites and removal of Contractor's facilities. It is the Contractor's responsibility to address site clean-up. This includes the removal of all waste materials, machinery and any contaminated soil. The Contractor will develop a plan for handover, sale or removal of all plant, vehicles and machinery to ensure that no unserviceable items are left on the construction site, in accordance with the Law on Waste management ("Official Gazette of RS" no. 36/09, 88/10 and 14/16). All construction sites and work areas will be rehabilitated so that these can be returned as close as possible to their previous state and uses. This includes the stabilization and landscaping of all construction sites. In accordance with the Law on environmental protection ("Official Gazette of the RS" no. 135/04, 36/09, 36/09 - State Law and 72/09 - State Law, 43/2011-Decision of Constitutional Court and 14/16), after the end of the work, the waste will not remain on-site. Should the Contractor fail to remove the waste, the PERS is entitled to withhold payment and arrange the clean-up and deduct the cost of the clean-up and administrative charges from the final payment.

Safety

Safety and Hazard Assessment: Before commencing work, the Contractor will be required to identify potential hazards. Provisions for emergency responses are to be included in the Contractor's site safety plan which shall include nomination of a person who will be immediately contacted should an accident occur. The site safety plan will be submitted to the PSC for approval one week before the work starts.

- The Contractor will be required to keep the site free of drugs and alcohol.
- The Contractor‘s site safety plan will include provision for a safe work environment and provide safety measures and protective equipment to all workers including hand, head, eye and ear protection and safety footwear.
- The site Safety Plan will include provision for first aid facilities on-site and employ a trained first aid person, in accordance with the Law on Safety and Health at work (“Official Gazette of the RS”, 101/05 and 91/15);
- The Contractor will provide supplies of potable water, toilets and wash water to the workers;
- Safety and Labour Management Plan (SLMP) is necessary in order to ensure H&S provisions during rehabilitation works;
- Contractor shall perform all project activities by respecting SLMP recommendations and all Serbian laws and by-laws which are covering H&S issues;

The PERS and the Contractor together have responsibility for reporting and investigating incidents.

Local community safety from increased vehicle movements: This applies to all vehicles and particularly to haul trucks that pass through settlements. The Contractor will ensure that all vehicles which pass through settlements are operated safely, without endangering these communities. The Contractor is to ensure that:

- all trucks and equipment is maintained in a safe operating condition,
- all drivers and machinery operators are trained and act responsibly (to be stipulated in the Contractor‘s site safety plan),
- all loads are secured and all loads with potential dust generating materials (e.g. excavated soil and sand) will be covered with tarpaulins,
- safety and immediate removal of any driver that ignore any of the community safety requirements,
- speed limits are respected.

Prior to commencement of construction activities/site works, all of the above plans will be submitted by the Contractor to the Sector for Investment within the PERS for approval.

Site restoration will follow the completion of works. It is Contractor's obligation to restore location of the project as it was at beginning of the project.

Operational Phase

People Safety: During operation, according to the assessment performed within the design phase, road safety features will include (1) measures to slow the traffic; e.g. decreasing of speed at selected places (e.g. settlements); (2) dust suppression by wetting; (3) improvements in road signage and pavement markings; and (4) attention to traffic accidents that are repeated in the same places by placing a "black spot" signs.

Road Maintenance: Routine maintenance (grass cutting, clearing of drainage systems, and pothole patching and various repairs, together with regular controls

and maintenance of drainage structures) will be undertaken on regular basis. Seasonal maintenance, regular maintenance of safety features and road signs will be undertaken as necessary. Major maintenance, that include resurfacing and bigger repairs are typically scheduled over periods of several years.

B. MONITORING PLAN

A monitoring plan for the proposed Project has been prepared (Appendix II). The main components include:

- Environmental issue to be monitored and the means of verification,
- Specific areas, locations and parameters to be monitored,
- Applicable standards and criteria,
- Monitoring of noise levels near residential areas,
- Monitoring of the procurement of materials (checks that valid permits are in place),
- Duration, frequency and estimated monitoring costs, and
- Institutional responsibilities for monitoring and supervision.

A field monitoring checklist has been prepared based on the EMP and Monitoring plan (Appendix II). The field monitoring checklist will be used by the supervising field engineer. The signed checklists will be provided to the PERS, who will be responsible for the follow-up and compliance reporting.

The PERS will maintain a Complaints Database, which will contain all the information on complaints or grievances received from the communities or other stakeholders. This includes: the type of complaint, location, time, actions to address these complaints, and final outcome.

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING

Project Implementation

PERS is the Implementing Agency for the Project and will be responsible for the implementation and compliance with the EMP and Monitoring Plan. Day-to-day implementation of the Project and monitoring its compliance will be the task of PSC.

Prior to the commencement of works, the PERS will submit to the Bank for its approval this section specific EMP.

The Contractor will provide “Zero monitoring” results prior to commencement of earth works, during its own mobilization phase.

- To ensure that the proposed mitigation measures will be carried out by the Contractor during the construction stage, the Project Proponent will undertake the following:
- clearly set out in the tender and contract documents the Contractor’s obligation to prepare CEP and undertake environmental mitigation measures as specified in the Environmental Mitigation Plan in Appendix I;
- No compensation for the costs of the required environmental mitigation measures and monitoring activities in the form of the particular item in the

Bill of Quantity (BoQ) shall be given to the Contractor, except for the water quality analysis and noise measurement. It shall be regarded as if the Contractor has included these costs in the other items of the BoQ. The actual costs of analyzing water quality and noise measurement within the defined contract will be reimbursed to the Contractor in the form of a specific item in the total price. For non-compliance with the requested measures for mitigating the environmental impact and monitoring activities, the Contractor will receive a specific penalty in the form of demerit points. Demerit points are provided as a measure that should stimulate the Contractor to carry out his obligations in an organized and timely way and to perform his duty in a quality manner. Demerit points have in the same time two meanings - numeric and monetary. Each demerit point has associated monetary value which represents permanent payments reduction for determined noncompliance of the contracted obligations. The number of demerit points received will have a cumulative effect. If during the Contract the Contractor receives more than certain number of demerit points specified in the Contract, the Contractor will not be allowed, for a period of 2 years, to compete for any other PERS works contract. Also, if the Contractor is awarded over a specified number of demerit points, the Employer has a right to terminate the Contract. The monetary value of each demerit point, as well as the deadlines for other possible actions by the Employer must be clearly stated in the Contract. The explanation for the application of these two measures - compensation for specific costs and penalties for non-compliance, should ensure the implementation of all required measures to mitigation of environmental impact and monitoring activities.

- Explicitly require the Contractor to recruit an environmental specialist. The Contractor will be responsible for the implementation of environmental mitigation measures during construction and shall employ an environmental specialist who will supervise implementation of the Contractor's environmental responsibilities. He will coordinate between the Contractor, PERS and the competent Ministry, and will address any complaints during project implementation. During project implementation, the PERS shall monitor the compliance of the Contractor with the EMP provisions. It is proposed that the PSC employs an environment specialist (with civil engineering/environmental management background) to assist the environmental supervision.

Upon project completion, the PERS will be in charge of the operation and maintenance of the road project. Routine and random monitoring will be undertaken as scheduled in the Monitoring Plan.

The PERS is also responsible for:

- Implementation of requests for environmental protection given by: Government environmental authorities, IFIs and other institutions, Law on Environmental Protection ("Official Gazette of the Republic of Serbia", no.135/04, 36/09, 36/09 - State Law and 72/09 - State Law, 43/2011-Constitutional Court Decision and 14/16),
- Implementation of requests for environmental protection through Contractors specifications,

- Supervision of the project through the consulting services for supervision and implementation of the project,
- Supervision of environmental monitoring through the consulting services for environmental monitoring,
- Preparation of the final environmental reports.

The Contractor, during a pre-construction period, will make a proposal for environmental protection, including safety of persons associated with the works and the public, within the EMP. This proposal will be reviewed by PERS in order to obtain its acceptance. In this regard, attention will be given to:

- taking all reasonable steps to protect the environment on and off site and avoid damage or nuisance to persons or property arising from its operations,
- maintaining conditions of safety for all persons entitled to be on site,
- provision of all lights, guards, fencing, warning signs, traffic control, looking to protect the works and other property as well as the safety and public interests.

The Competent Ministry, MoEP, will have the authority for immediate suspension of works, if performance is not in accordance with environmental standards and regulations. Inspection will then inform the PERS about suspension and order to proceed according to its directive.

During the implementation of this design, the public has the right to participate directly or indirectly, thereby introducing the opportunity to present their interests and opinions in the decision-making process. In order to achieve the best options during this process, PERS presents this EMP to the stakeholders, such as the interested public, including local municipalities and Non-Governmental Organisations (NGOs). The draft Plan is placed on the PERS website (www.putevi-srbije.rs). During the process of public consultation, the interested public gathers all information about the design, including all environmental issues related to this design. Opinions and suggestions are incorporated into the final version of the EMP, which is an integral part of the tender design documentation. The grievance mechanism will be maintained by PEPS, through their website.

During rehabilitation works, a public communication officer will be appointed by the Contractor, who will establish communication with the local residents affected by the design and who will be responsible for informing them of all design activities, in particular with regard to the environmental impacts of the design and the planned mitigation measures.

Reporting Arrangements

A) Contractor – PERS

The Contractor will prepare his compliance reports in respect to this EMP and his SSIP as a Quarterly Progress Reports and submit them to PERS, in both Serbian and English language, in hard copy and electronic version.

The Contractor will provide quarterly reports to the PERS such as the environmental mitigation document and protection measures, together with prescribed monitoring activities carried out during that reporting period. The Contractor will take care of environment quality, according to the Mitigation and

Monitoring Plan, which are key components of the EMP (Appendix I and Appendix II), and will report quarterly to the PERS.

If some kind of accident or endangerment of environment happens, reporting will be immediate. Contractor is obliged to inform the project manager and local authorities about the accident immediately after it happened. In case that the project manager is not responding on a call, the Contractor is obliged to inform PERS about the accident (phone number +381113040701 or via E-mail on following address: office@putevi-srbije.rs).

The Contractor will monitor quality of environmental conditions according to the Monitoring Plan which is a consisting part of EMP (Appendix II) and will report quarterly to the PERS. These reports will encompass a list and explanation of all undertaken activities at the site and results of the field research, as well as recommendations for future field activities and protection measures.

B) Project Supervision Consultant – PERS

The findings of the regular monitoring activities, including activities specified in the Monitoring Plan (Appendix II) carried by the Contractor, will be included in the quarterly PSC progress reports.

If some kind of accident or endangerment of environment happens, reporting will be immediate.

C) PERS – Ministry of Construction, Transport and Infrastructure (MoCTI), WB, EBRD and EIB

Annual Environmental Health and Safety (EHS) report, including monitoring indicators and reporting on the implementation of the requirements set forth in the EMP, will be prepared by the PERS and submitted for IFIs review. IFIs will review the reports and verify their contents through periodic site visits. The PERS shall provide Annual reports to the MoCTI and IFIs regarding the status of implementation of mitigation measures by the Contractor, additional mitigation measures that may need to be implemented, incidents of non-compliance with applicable environmental permits, complaints received from local residents, NGOs, etc. and how these were addressed.

In case of fatalities or major incidents on site, PERS will immediately report to the Bank that is financing the road section.

6. STAKEHOLDER'S ENGAGEMENT - INFORMATION DISCLOSURE, CONSULTATIONS, AND PARTICIPATION

As required by the IFIs Safeguards Policies, public consultations will be held during the preparation of EMP. The EMP and other project information will be disclosed to the public and available to the local community.

PERS office	Investment sector, 19a, Vlajkoviceva St., Belgrade, first floor, on working days from 11:00 AM to 01:00 PM (local time), within 10 days of publication of notification
Community centres	Municipality of Merosina 17, Cara Lazara St., 18252 Merosina, on working days, within 10 days of publication of notification
PERS - web site	www.putevi-srbije.rs

Interested parties who may have an interest in the Project have been identified and listed in Appendix IV and may be consulted and informed on issues related to the project.

Detailed Report on Public Consultation process is presented within the Appendix IV of this EMP and includes a list of identified stakeholders, which shall be updated as necessary.

Beneficiary consultations will be conducted during the construction phase, and records of environmental and social issues raised and complaints received during consultations, field visits, informal discussions, formal letters, etc., will be followed up and the records will be kept in the project office at PERS.

Before the commencement of work, PERS will provide information through:

- Newspaper articles in one national and also in one local media,
- Posters on main notice board at all community centers of potential affected Communities,
- Radio announcement of road diversions,
- Provide contact details of community liaison officer who is appointed to work with local communities.

A Grievance Mechanism will be implemented to ensure that all complaints from local communities are dealt with appropriately, with corrective actions being implemented, and the complainant being informed of the outcome. It will be applied to all complaints from affected parties. A grievance form is attached in Appendix IV, and hard copies will be made available at community centers.

7. REFERENCES

1. Environmental Assessment Sourcebook no. 25, Environmental Management Plans, The World Bank Environment Department, January 1999.
2. Roads and the environment: Handbook, The World Bank Environment Department
3. EIB, Environmental and Social Practices Handbook, Environment and Social Office Projects Directorate Version 2 of 24/02/2010.
4. EBRD Environmental and Social Policy 2008
5. EIB, Statement of Environmental and Social Principles and Standards (2008).
6. Environmental Management Plan for rehabilitation of roads, bridges and tunnels under the World Bank road management and safety project, Republic of Srpska Road Directorate, Banja Luka, 2001.
7. Environmental Assessment REPORT & Environmental Management Plan for Serbian Transport Rehabilitation Project, Report no: E866, project name/ID: YF - Transport Rehabilitation Project – no. P075207, document date 30/11/2003.

Appendices

Appendix I
Mitigation Plan

MITIGATION PLAN

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
PRE-CONSTRUCTION	**Main Design**				
	The respect for the procedures related to the protection of the environment	The Highway Institute JSC Belgrade, based on the authorization given by the PERS, obtained the Conditions of the INC and the IPCM Nis, in order to avoid the risks to the environment in the period of heavy maintenance.	PERS, The Highway institute, JSC Belgrade,	PERS	
	The location and organization of construction site must be approved by the PE and chosen to fulfill the following:	- it is located outside of the flood zones of the rivers (Krajkovacka River and Jugbogdanovacka River); - They do not interfere with the environment and social well-being of the surrounding communities (e.g. noise, dust. vibration, etc.); - It is located outside of the area with tall vegetation; - The size of facilities is limited to absolute minimum to reduce unnecessary clearing of vegetation; - Sanitary waste and grey waters are treated before release into surface water systems, and in accordance with the Law on water ("Official Gazette of the RS" no. 30/10 and 93/12) these locations are properly drained; - Asphalt surfaces, including areas for parking	PERS Contractor	PERS	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		vehicles, workshops and fuel stores, are to be properly drained (dewatered). Collected water must be treated through a separator that separates oil and petroleum. Conducting of oil and water into separators and fuel storage; - Whenever possible, limit the area to be cleared and avoid excessive machine disturbance of the topsoil; - Cleared material is to be collected, removed and/or reused as needed. Prevention of soil erosion on construction site: - The Contractor will be responsible for implementation of the erosion protection measures; - The Contractor is obliged to limit the extent of excavation to reduce soil erosion; - The Contractor shall apply soil conservation protection methodology to susceptible areas to prevent/minimize storm water runoff carrying eroded materials off-site; - The Contractor should avoid excavation and operating machinery in wet ground conditions.			
	Site selection for construction camps, near or within existing settlements. Impact on public health and sociological setting.	Proper site selection, observing criteria which primarily protect the public interest. Observe a minimum distance (buffer zone) between camp site and nearest residential area. Observe local wind conditions to reduce nuisances. Work safety and environmental protection measures to be specified by the Contractor in his Site	Main Design Consultant and RC	PERS	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		Management Plan. Plan an independent water and electric supply network and a medical service station at the site.			
	Road safety issues associated with pedestrian crossing	Plan for safe and adequate pedestrian crossing facilities that will be equipped with ramps and structures that allow the use of wheelchairs, pushcarts, bicycles and prams.	Main Design Consultant and RC	Technical Control of Main Design, PERS	
	Stakeholder engagement	Details of the proposed road alignment, access points and safety features will be disclosed in the locality of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered in the final design will be recorded.	PERS Main Design Consultant and RC	PERS	
CONSTRUCTION	**Management Plans**				
	The Contractor provides the implementation of the following Plans as described in the EMP, in order to ensure compliance with legislative and Lender requirements. • Site organization plan; • Sewage and septage management; • Grievance mechanism; • Soil Management Plan; • Dust management plan; • Location of the proposed material extraction site, as well as rehabilitation measures to be implemented for the borrow areas and access roads upon project completion; • Waste and wastewater management plan in accordance with the Law on				

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
	Waste management ("Official Gazette of the RS", 36/09, 88/10 and 14/16); • Oil, fuel and lubricants storage management plan; • In-river works management plan; • Emergency response plan; • Rehabilitation Plan; • Safety and Hazard Assessment; • SLMP.				
CONSTRUCTION	**Site Induction**				
	All workers and visitors to site shall be referred to the SLMP and instructed in the need and use of PPE.				
CONSTRUCTION	**Material supply**				
	Asphalt plant: dust, fumes, workers health and safety, ecosystem disturbance	use existing asphalt plants; requirement for official approval or valid operating license	Asphalt plant	Asphalt plant	
	Stone quarry: dust, workers health and safety, ecosystem disturbance	use existing stone quarries, requirement for official approval or valid operating license	Stone quarry	Stone quarry	
	Sand and gravel borrow pit: disturbance of river bed, water quality, ecosystem disturbance	use the existing borrow pits or buy material at licensed separations; requirement for official approval or valid operating license.	Contractor or sand and gravel separation	Contractor or sand and gravel separation	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
CONSTRUCTION	**Material transport**				
	Asphalt: Dust, fumes	All trucks are to be covered. (this is a problem area through-out the region and it will be solved by proper selection of contractors operating trucks).	Truck operator	Truck operator	
	Stone: Dust	Wet the truck load.	Truck operator	Truck operator	
	Sand and gravel: Dust	Wet the truck load.	Truck operator	Truck operator	
	Traffic noise, vehicle exhaust, and road congestion management	Haul material at off-peak traffic hours (preferably between 9-14h); use alternative routes to minimize major traffic routs; it is necessary to ensure adequate signs of construction sites, in order to minimize 'wrong turn' chances causing even more congestion.	Transport manager; Truck operator	Transport manager; Truck operator	
	Chance to encounter an archaeological site i.e. geological - paleontological documents or mineralogical -petrological structures, which are presumed to have the characteristic of a natural good.	In case of chance finds, the Contractor is obliged to stop the works immediately and inform the IPCM and PERS about it, which will provide conditions for archaeological research, conservation and presentation. Likewise, if the geological-paleontological documents or mineralogical -petrological structures were encountered, the Contractor would be obliged to inform the Ministry in charge of environmental protection within 8 days, as well as to take all measures for protection from destruction, damage	Contractor, PERS	Contractor's Supervision	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		or theft until arrival of an authorized person.			
CONSTRUCTION	**Construction Site**				
	Noise disturbance to workers and neighbouring population	Limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public and authorities); equipment operating with noise mufflers and licenced and approved in accordance with EU standards; noise barriers for noisy works for those longer than one day in the same location/area. Noisy equipment will be located as far as possible from residential or other sensitive receptors.	Contractor	Contractor	
	Dust	Water the construction site and cover material storage areas and limit the speed of vehicles. Implementation of Dust Management Plan: measures to avoid/minimize dust emissions, including use of hoardings; dewing of all transport and manipulation surfaces of construction machinery, accesses, materials stockpiles and during loading/unloading activities, covering of vehicles carrying dusty materials; wheel washing/spraying of vehicles, etc. thus preventing the raising of dust and negative impact on people and planted crops within their households (curtilages) in the immediate vicinity of the State road alignment IB no. 35.	Contractor	Contractor	
	Vibrations	Limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public and authorities);	Contractor	Contractor	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		If any material damage proved to have been caused to local houses, buildings and other infrastructure (including access roads) by the works will be compensated for and subject to repair on a timely basis. Earthmoving equipment will be located as far away as possible from vibration-sensitive receptors.			
	Traffic disruption during construction activity	Traffic management plan with measures to redirect traffic, that are easily seen or easy to follow, including traffic police assistance if needed. Preparation of Traffic Management Plan that establishes a speed limit for construction vehicles and organizes traffic so that it is mostly performed outside the populated areas. During work execution, maximize the existing network of roads and avoid the construction of new roads for temporary use, which would further increase the fragmentation of space and existing habitats. Local residents will be kept informed about planned works. Adhere to the road alignment so that manipulation of vehicles and machinery would not leave any consequence on the wider area.	Contractor	Contractor	
	Reduced access to roadside activities	Provide alternative access to roadside activities at all times.	Contractor	Contractor	
	Vehicle and pedestrian safety when/where there	Take measures to protect the inhabitants from accidents.	Contractor	Contractor	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
	is no construction activity	- Lighting and well defined safety signs and protection measures. - The installation of protective barriers, pedestrian crossings and passages shall be foreseen in places where it is most appropriate, especially at locations near the existing settlements.			
	Water and soil pollution from improper material storage, management and usage	Temporary locations for the storage of the necessary construction and other material and equipment should be located outside the area with high vegetation as well as outside the flood areas of the rivers Krajkovacka and Jugbogdanovacka and limited exclusively for the duration of the works. Maximally preserve the bank area of the rivers, i.e. prohibit the destruction of bank vegetation. Organize and cover material storage areas; isolate concrete, asphalt and other works from watercourse by using sealed formwork or covers; isolate wash down areas of concrete and asphalt trucks and other equipment from watercourse by selecting areas for washing that are not free draining directly into watercourse. Asphalt and parking areas, workshops and fuel depots should be properly drained and the collected water treated through a separator that divides oil and petroleum. Operate construction site in a way to reduce the risk of generating sediments and wastewater that may pollute local soils or receiving water bodies (considering situations such as including storm water runoff, wastewater generated from facilities	Contractor	Contractor	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		on site). Soil Management Plan shall be prepared for the controlled removal of top soil, storage and reuse. Prevent sediments flowing into surface waters and drainage channels by localized control measures. Some of the measures are the placement of physical obstacles (e.g. fences, mulch barriers, geofabric, overflow cascades, sediment basins and rock barriers) in order to mitigate the waves. In order to prevent leaching of sediments is also necessary to take into account the slope of the terrain and protection from wind erosion by fencing, covers installation, etc. Depositing of surplus of earth, stone and similar may only be temporary and limited in time to the completion of the planned works. After the completion of works, all excesses of soil, stones and other waste materials should be removed and the full rehabilitation of degraded areas all over the degraded surfaces should be executed.			
	Water and soil pollution from improper disposal of waste materials	During the execution of works along the entire route, maintain the maximum level of public order. Define locations for placing containers for the temporary disposal of municipal waste. Disposal of waste material at location protected from washing out, should be marked in the site plan; if not on site, then at authorized landfill (Kostadinovac-field,~400 m^2; Merosina- next to the State Road IB, no. 35 Merosina – Prokuplje, ~	Contractor	Contractor	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		70 m^2; Jugbogdanovac – road to the field ~300 m^2; in the centre of Prokuplje near the city stadium by the Toplica River, once a municipal waste landfill and now building materials landfill). Storage of waste according to international best practice (International Finance Corporation, EHS - General Guidelines). Apply additional measures for storage of hazardous wastes (such as use of secondary containment, access restriction, provision of PPE etc.) as necessary to prevent harm to construction staff, environment and public. Appoint responsible persons for waste collection and its storage (hazardous and non-hazardous).			
	Potential contamination of soil and water from improper maintenance and fuelling of equipment	Temporary or permanent locations (existing regulated public utility structures/landfills) for disposal and dumping of building rubbish, and other waste construction material in any condition and municipal waste generated during the execution of works, as well as the prohibition of their disposal in the bank area of the rivers and on agricultural land, except at locations defined by the Design. Apply best engineering practice in handling and safe storage of lubricants, fuels and solvents, ensure proper loading of fuel and maintenance of equipment, collect all waste and dispose it to permitted waste recovery facilities. Servicing of vehicles and machines along the route is not permitted. If an accidental spilling of fuel, oil/lubricant and other harmful substances	Contractor	Contractor	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		occured, it would be necessary to repair the surface and restore it to its original condition.			
	Water and soil pollution from improper transport of waste materials	Transport of waste in marked vehicles designed to the type of waste, in order to minimize the risk of release of materials, hazardous and non. Training of drivers in handling and disposal of their cargo and the following documentation describing the nature of the load (waste) and its degree of hazard.	Contractor	Contractor	
	Potential pollution of water after completion of the Project and during the exploitation of the State Road IB no. 35.	The design shall envisage catch basins and separators of grease and oil for waters generated by leaching from the pavement, especially on the part of the road alignment along the rivers, in order to protect them from pollution. At defined locations for installing the separation systems for wastewater treatment, apply the best engineering practice in choosing the plant type and method of installation.	Contractor	Contractor's Supervision	
	Regulation of watercourses	In the zone of road (bridges) crossing over watercourses, the use of stone and other materials (as much as possible avoid the concreting of banks and waterbeds - the implementation of natural watercourse regulation), whereby maximum preservation of waterbeds themselves as well as the banks with the existing vegetation is necessary.	Contractor	Contractor's Supervision	
	Worker safety	Provide workers with safety instructions and protective equipment; provide safe organization of	Contractor	Contractor	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		bypassing traffic.			
	Temporarily occupied areas	Upon completion of works, all surfaces that are degraded in any way by construction or other works shall be repaired as soon as possible. In this sense, establish a plant cover (cultivate the terrain) in all endangered areas by using an appropriate flora that is biologically stable under given climatic conditions (resistant to harmful effects of exhaust gases), and make sure that the choice of species is in line with the surrounding area and its purpose. This means restoring vegetation with autochthonous species and following their development. Where the planting was not successful, make a replacement.	Contractor	Contractor	
OPERATION	**Maintenance**				
	Noise disturbance to human and animal population and workers	Limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public); Use of equipment operating with noise mufflers.	Maintenance Contractor	Maintenance Contractor	
	Possible air, water and soil pollution: Dust, vehicle exhaust, fuel, oil and lubricants spills.	Apply best engineering practice in handling and safe storage of lubricants, fuels and oils; ensure proper loading of fuel and maintenance of equipment; collect all waste and dispose it in accordance with the Law on Waste Management; Organize and cover material storage areas properly; isolate concrete, asphalt and other works from watercourse by using sealed formwork	Maintenance Contractor	Maintenance Contractor	

Phase	Issue	Mitigating measures	Institutional responsibility		Comments
			Implementation	Supervision	
		or covers; isolate wash down areas of concrete and asphalt trucks as well as the other equipment from watercourse by selecting areas for washing from which the water does not wash freely, directly or indirectly, into watercourses (Krajkovacka and Jugbogdanovacka rivers); dispose waste material at location protected from washing out.			
	Vibrations	Limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public and authorities).	Maintenance Contractor	Maintenance Contractor	
	Worker safety	Provide workers with safety instructions and protective equipment; safe organization of bypassing traffic. These measures can be extended.	Maintenance Contractor	Maintenance Contractor	
	Increased vehicle speed	Place traffic signs for speed limit	Maintenance Contractor	Maintenance Contractor	
	Erosion, rockfall, hazardous conditions	Install warning signs (rock fall, landslide, wet or slippery carriageway, dangerous curve, animal or pedestrian crossing, school, slow moving vehicles); reflective markers to indicate steep edge or convex mirrors to see oncoming traffic at blind curves; place warning signs at points considered necessary by good engineering practice, or as agreed in writing with public authorities.	Maintenance Contractor	Maintenance Contractor	

Appendix II
Monitoring Plan

MONITORING PLAN

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility / Implementation
CONSTRUCTION	**Material supply**					
Asphalt plant	possession of official approval or valid operating license	asphalt plant	inspection / supervising engineer	before work begins	assure plant compliance with environment, health and safety requirements	Plant Operator
Stone quarry	possession of official approval or valid operating license	Stone quarry	inspection / supervising engineer	before work begins	assure quarry compliance with environment, health and safety requirements	Quarry Operator
Sand and gravel borrow pits	possession of official approval or valid operating license	sand and gravel borrow pit or separation	inspection / supervising engineer	before work begins	assure borrow compliance with environment, health and safety requirements	Borrow pit or Separation Operator

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility / Implementation
CONSTRUCTION	**Material transport**					
Asphalt	truck load covered	job site	supervision	unannounced inspections during work, at least once per week	assure compliance with environment, health and safety requirements	Contractor's Supervision
Stone	truck load covered or wetted	job site	supervision	unannounced inspections during work, at least once per week	assure compliance with environment, health and safety requirements	Contractor's Supervision
Sand and gravel:	truck load covered or wetted	job site	supervision	unannounced inspections during work, at least once per week	assure compliance with environment, health and safety requirements	Contractor's Supervision

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility / Implementation
Traffic management	Hours and routes selected	job site	supervision	unannounced inspections during work, at least once per week	assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's Supervision
CONSTRUCTION	**Construction Site**					
Noise disturbance to workers and neighbouring population	noise levels	construction site; the nearest houses of the settlements of Merosina, Jugbogdanovac and Nova Bozurna.	hand-held analyzer with application software	once at the beginning of the project and later on quarterly basis, and on complaint; if the results of monitoring are not satisfactory, monitoring should be conducted on monthly basis.	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible.	Construction Contractor (monitoring)

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility: Implementation
Dust	air pollution (solid particles)	at and near job site, along all transport and manipulation surfaces of construction machinery.	inspection and visual observation	unannounced inspections during material delivery and construction	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's Supervision (monitoring)
Vibrations	limited time of activities	job site	supervision	unannounced inspections during work and on complaint	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible.	Contractor's Supervision
Traffic disruption during construction activity	existence of traffic management plan; traffic patterns	at and near job site	inspection; observation	before works commencement; once per week at peak and non-peak periods	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor's Supervision

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility: Implementation
Reduced access to roadside activities	provided alternative access	job site	supervision	random checks at least once per week during construction activities	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor's Supervision
Vehicle and pedestrian safety when there is no construction activity	visibility and appropriateness	at and near job site	observation	random checks at least once per week in the evening	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor's Supervision

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility / Implementation
Water and soil pollution from improper material storage, management and usage	water and soil quality (suspended solids, oils, pH value, conductivity)	on Krajkovacka and Jugbogdanovacka Rivers, downstream from the crossing point with the State Road IB no. 35.	unannounced sampling; analysis at accredited laboratory with necessary equipment	At least 3 times during project period, monitoring should be done prior construction (or on a referent point upstream of construction site) and during and after rehabilitation works.	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible. Likewise, by monitoring this parameter, control of the existing biological balance of watercourses is carried out and its disturbance is prevented.	Construction Contractor (monitoring)

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility / Implementation
Potential pollution of water and soil after installation of separation systems for treatment of atmospheric waste waters from the surface of the pavement and their improper management and maintenance	water and soil quality (suspended solids, oils, pH values, conductivity)	- downstream from the crossing point with the State Road IB no. 35 and point of waste water discharging after the purification treatment in separation systems wich are at next chainages: km 208+462.82 Krajkovacka River and km 215+339.83 Jugbogdanovacka River; - in the right-of-way of the State Road IB no. 35.	analysis at accredited laboratory with necessary equipment	water monitoring shall be carried out six months after the completion of the Project, which would also be a control of the functioning of the separation systems for treatment, while the future measurements of water quality shall be performed once a year; soil monitoring, after the completed measurements at the end of the Project (heavy maintenance on the State Road IB No. 35), is to be performed after 5 years.	Monitoring of these parameters is in line with the requirements of safety, health and environmental protection; Separation systems will be installed in these locations that should prevent any pollution of watercourses from the pavement surface during the future exploitation of the subject State Road IB no. 35, and in accordance with the Conditions of the Institute for nature conservation of Serbia, which foresee such measure of watercourses protection.	PERS (monitoring)

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility: Implementation
Potential destruction of vegetation by the movement of machinery	*vegetation along the road alignment*	Along the entire road	supervision	random checks at least once a week during construction activities	ensure that the works comply with the requirements of safety, health and environment, and minimize traffic disturbance	Contractor's Supervision
Immovable cultural property	Archaeological site	In the zone of foreseen earthworks - widenings (~ km 215.+355 - km 215+573).	Permanent supervision	During the execution of works, widenings	possibility of finding a new archaeological site	Contractor's Supervision, Archaeological supervision
Worker safety	protective equipment; organization of bypassing traffic	job site	inspection	unannounced inspections during work	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor's Supervision

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility / Implementation
OPERATION	**Maintenance**					
Noise disturbance to workers neighboring population	noise levels	job site; nearest homes	hand-held analyzer with application software	unannounced inspections during maintenance activities and on complaint	Assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	PERS
Vibrations	limited time of activities	job site	supervision	unannounced inspections during maintenance activities and on complaint	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	PERS
Worker safety	protective equipment; organization of bypassing traffic	job site	inspection	unannounced inspections during maintenance activities and on complaint	assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	PERS

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	*Why the parameter should be monitored (optional)?*	Institutional responsibility / Implementation
OPERATION	**Road Safety**					
Increased vehicle speed	condition of traffic signs; vehicle speed	road section included in project	visual observation; speed detectors	during maintenance activities; unannounced	enable safe and economical traffic flow	Maintenance Contractor; Traffic Police
Erosion, rockfall, hazardous conditions	condition of hazard signs	road section included in project	visual observation	during maintenance activities	enable safe and economical traffic flow	Maintenance Contractor, impact monitoring

Proposed template - additional data required that should be incorporated into monitoring plans:

1 General		
Is the project compliant with all relevant 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 materially compliant with all applicable environmental and social laws and regulations?	Yes ❑ No ❑	If No, please provide details of any material non-compliances:
Have there been any accidents or incidents that have caused damage to the environment, lead to injuries or fatalities, affected project labour or local communities, affected cultural property, or created liabilities for the company?	Yes ❑ No ❑	If yes, please describe, including details of actions to repair and prevent reoccurrence:
Have there been any changes to environment, social, labour or health and safety laws or regulations that have materially affected the company?	Yes ❑ No ❑	If yes, please describe:
How many inspections did you receive from the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
How many inspections did you receive from the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
How many inspections did you receive from the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
Have these visits resulted in any penalties, fines and/or corrective measures?	Yes ❑ No ❑	If yes, please describe, including status of implementing corrective measures:
Has the Company engaged any sub-contractors for project-related work?	Yes ❑ No ❑	If yes, please state for which types of work, and how the company has monitored the compliance of contractor's work with the Environmental and Social Action Plan (ESAP):
Were any of the violations stated above the responsibility of sub-contractor?	Yes ❑ No ❑	If yes, please provide details, including how the Company is ensuring that corrective actions are implemented by the Sub-contractor?
Have any operations been reduced, temporarily suspended or closed down due to environmental, health, safety or legislation reasons?	Yes ❑ No ❑	If yes, please describe:

Please describe any environment or social program, initiatives or sub-projects undertaken by the Company in order to improve 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 ESAP, or to any other initiative:

2 Status of the ESAP

Please provide information on the status of each item in the ESAP. If the ESAP has been updated during the reporting period, please attach a copy of the new plan.

3. Environmental Monitoring Data[1]

Please provide the name and contact details for your environmental manager:				
Parameter[2]	**Value[3]**	**Unit**	**Compliance Status[4]**	**Comments[5]**
Waste Water				
Total waste water generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				

[1] Please provide the results of any environmental monitoring carried out by the Company or its consultants. If you already have all the data requested available in another format (form), then this can be used instead.
[2] Not all parameters will necessarily apply. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.
[3] Please ensure that the units of measurement are clearly stated
[4] Please report on compliance against the standards for this project (typically local, EU and/or WB)
[5] 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[1]

Please provide the name and contact details for your environmental manager:				
Parameter[2]	**Value[3]**	**Unit**	**Compliance Status[4]**	**Comments[5]**
Air Emissions				
SO_2				
NO_X				
Particulates				
CO_2				
CH_4				
N_2O				
HFCs				
PFCs				
SF_6				
[Other]				
Other Parameters				
Noise				
[Other]				
Solid Waste				

3. Environmental Monitoring Data[1]

Please provide the name and contact details for your environmental manager:				
Parameter[2]	**Value[3]**	**Unit**	**Compliance Status[4]**	**Comments[5]**
Please provide details of the types and amounts of solid wastes generated by the project. Indicate where wastes are 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[6]
Fuels used			
Oil			
Gas			
Coal			
Lignite			
Grid Electricity			
Heat Purchased			
Feedstocks and raw materials consumed			
Name 1			
Name 2			
Product output			

[6] 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)

4. Resource Usage and Product Output

Parameter	Value	Measurement Unit	Comments[6]
Product 1			
Product 2			

5 Human Resources Management

Please provide the name and contact details of 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 summarise engagement with trade unions:
Were there any other worker representatives (e.g. in the absence of a trade union)?	Yes ❑ No ❑	If yes, please provide details and summarise 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 raised any grievances with the project during the reporting period?	Yes ❑ No ❑	If yes, please state how many, split by gender, summarise the issues raised in grievances and explain how the Company has addressed them:
Have employees raised any complaints about harassment or bullying during the reporting period?	Yes ❑ No ❑	If yes, please state how many, split by gender, summarise the issues raised in grievances and explain how the Company has addressed them:
Have there been any strikes or other collective disputes related to labour and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarise nature of, and reasons for disputes and explain how they were resolved by the Company:
Have there been any court cases related to labour issues during the reporting period?	Yes ❑ No ❑	If yes, please summarise the issues contested and their outcome:
Have there been any changes during the reporting period in any of the following areas: • Representative union, • Collective Agreement, • Non-discrimination and equal opportunity for everybody, • 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 work), • Overtime, • Working hours, • Flexible working / work-life balance, • Grievance mechanism for workers • Health and safety.	Yes ❑ No ❑	If yes, please give details, including any new initiatives, if they exist:

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:**
The amount of work that the average worker does in the reporting period in an hour:			Number of Fatalities[7]:		
Budget spent on OHS in this period (total amount and currency):			Number of disabling injuries:		
OHS training provided in this period (in person-days):			Number of Lost Time Incidents (including vehicular)[8]:		
Number of lost workdays[9] resulting from incidents:			Number of cases of occupational disease:		
Number of sick days:					
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 Banks, including total compensation paid due to occupational injury or illness (amount and currency):					
Please summarise any emergency prevention and response training that has been provided for company personnel during the report period:					
Please summarise any emergency response exercises or drills that have been carried out during the report period:					

[7] If you have not already done so, please provide a separate report detailing the circumstances of each fatality.
[8] Incapacity to work for at least one full workday beyond the day on which the accident or illness occurred.
[9] Lost workdays are the number of workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

7 Stakeholder Engagement

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

Please provide information on the implementation of the stakeholder engagement plan and summarise interaction with stakeholders during the reporting period, including:
- Meeting or other initiatives to engage with members of the public or public organisations during the report period;
- Information provided to members of the public and other stakeholders during the reporting period, relating to environmental, social or safety issues;
- coverage in media;
- interaction with any environmental or other community groups.

Please describe any changes to the Stakeholder Engagement Plan:

How many complaints or grievances did the Project receive from members of the public or civil society organisations during the reporting period? Please split by stakeholder group. Summarise any issues raised in the complaints or grievances and explain how they were resolved:

8 Status and Reporting on Resettlement Action Plan (RAP)

Existing Land Acquisitions

Please report any further progress made during this reporting period in the implementation of the RAP, using the monitoring indicators as detailed in the RAP, and complete the table below. Please provide the results of any other related monitoring and attach any additional information you think would be useful.

Have all the affected persons been fully compensated for their physical displacement and, if applicable, any economic losses resulting from the project?	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 payment 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 the 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.
Have there been any new land acquisition-related complaints or grievances?	Yes ❑ No ❑	If yes, please state how many and summarize their content.
Has the company regularly reported to the affected communities on progress made in implementing the RAP?	Yes ❑ No ❑	If yes, please state how many meetings were held and how many participants attended.
New Land Acquisitions If the company acquired any new land for the project during the reporting period, 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.		
Have any persons been physically displaced?	Yes ❑ No ❑	If yes, how many?

Have any persons been economically endangered?	Yes ❑	No ❑	If yes, how many?
Was it a government assisted resettlement?	Yes ❑	No ❑	

9 Community Interaction and Development

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

Appendix III
Legislation

MAIN SERBIAN LEGISLATION:

The main laws and regulations currently in force in Republic of Serbia which are relevant to the environmental protection during planning, design, construction and operating of this Project are listed below:

1. Law on Planning and Construction ("Official Gazette of the RS" no. 72/09, 81/09, 64/10, 24/11, 121/12, 42/13, 50/13, 98/132,132/14 and 145/14);
2. Law on nature protection (“Official Gazette of the RS”, no. 36/09 88/10, 91/10 and 14/16);
3. Law on environmental protection (“Official Gazette of the RS” no. 135/04, 36/09, 36/09, 72/09, 43/11 and 14/16);
4. Law on EIA (“Official Gazette of the RS” no. 135/2004 and 36/2009);
5. Law on Strategic EIA (“Official Gazette of the RS” no. 135/2004 and 88/10);
6. Law on Waste Management (Official Gazette RS no. 36/09, 88/10 and 14/16);
7. Law on Noise Protection ("Official Gazette of the RS", no. 36/09 and 88/10);
8. Law on Water ("Official Gazette of the RS", no. 30/10, 93/12 and 101/16);
9. Law on Forests ("Official Gazette of the RS", no. 30/10, 93/12 and 89/15);
10. Law on Air Protection (“Official Gazette of the RS”, 36/09, 10/13);
11. Law on Occupational Safety and Health ("Official Gazette of the RS", no. 101/05, 91/15 and 113/17);
12. Law on Public Roads ("Official Gazette of the RS" no. 101/05, 123/07, 101/11, 93/12 and 104/13);

Regulations formed based on the aforementioned Laws:

13. Decree on establishing the List of Projects for which the Impact Assessment is mandatory and the List of projects for which the EIA can be requested (“Official Gazette of the RS” no. 114/08);
14. Rulebook on the contents of requests for the necessity of Impact Assessment and on the contents of requests for specification of scope and contents of the EIA Study (“Official Gazette of the RS” no. 69/05);
15. Rulebook on the contents of the EIA Study (“Official Gazette of the RS” no. 69/05);
16. Rulebook on the procedure of public inspection, presentation and public consultation about the EIA Study (“Official Gazette of the RS” no. 69/05);
17. Rulebook on the work of the Technical Committee for the EIA Study (“Official Gazette of RS” no. 69/05)
18. Decree on noise indicators, limit values, method for assessment of noise indicators, disturbance and harmful environmental impact of noise ("Official Gazette of the RS", no. 75/10);
19. Regulation on watercourses categorization (“Official Gazette of SRS” no. 5/68, 33/75, 31/82);
20. Decree on limit values for priority and priority hazardous substances which pollute surface water and deadlines for their achievement (“Official Gazette of the RS” no. 24/14);

21. Decree on limit values of pollutants in groundwater, surface water and sediment and limits for their achieving (“Official Gazette of the RS” no. 50/12);

Other relevant Serbian legislation:

22. Strategy for the Implementation of the Convention on Access to Information, Public Participation in Decision-Making and the Right to Legal Protection in Environmental Matters - the Aarhus Convention ("Official Gazette of the RS" no. 103/11).

Appendix IV

Stakeholder Engagement and reporting from public consultations

Identified Stakeholders

Stakeholders can be defined as those people and organisations who may affect, be affected by, or perceive themselves to be affected by, a decision or activity. For the Project, the stakeholders range according to the following main groups:

Potential affected parties:

- Employees of PERS and Contractors;
    - Representatives of companies operating the area immediately adjacent to the Project;
- Residents from settlements within the zone of influence of the Project;
    - Statutory regulatory authorities, on local or regional level, such as: Local landowners and leaseholders; and Potentially affected industries/businesses.

Other interested parties:

- General public;
- Other companies operating on the National Grid;
- NGOs.

It is acknowledged that, as the Project develops, more stakeholders may be identified and engaged. In this regard, once identified, each stakeholder will be characterized in terms of their interests, concerns and requirements and will be included within this list.

Feedback from public consultation on EMP

1.BACKGROUND

Public consultations **will be** held in the future.

2.REPORT ON PUBLIC CONSULTATION, MUNICIPALITY OF ....., ...

3.PARTICIPANTS LIST

4.DOCUMENTATION

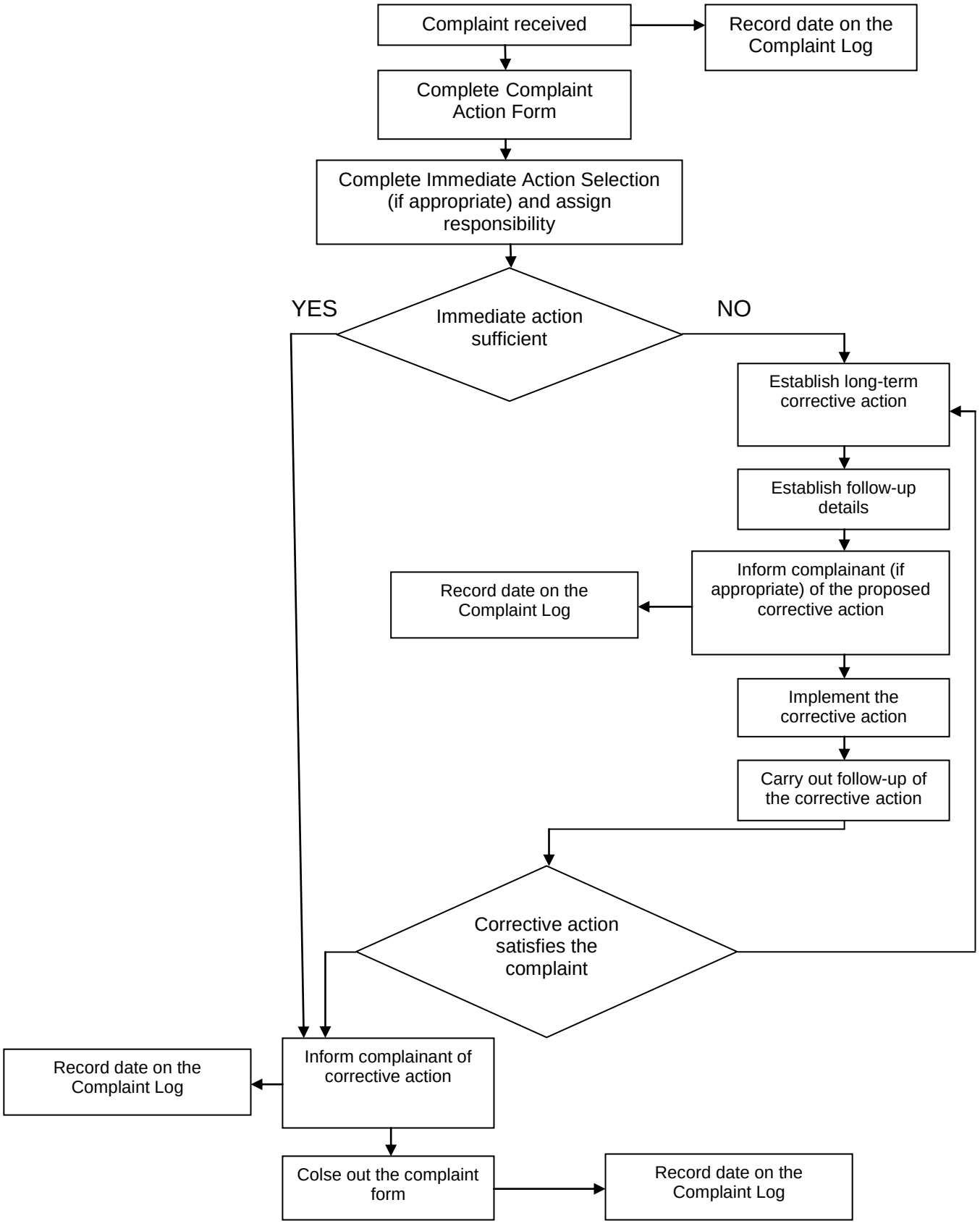
Figure 4.1: Announcement of public discussion in daily newspaper (“Politika” .....2018.))

Figure 4.2: Announcement of public consultation on the web site of PE "Roads of Serbia" (.....2018.)

Appendix V
Grievance mechanism

Grievance mechanism and form

Flowchart of Complaints/Grievance Procedure



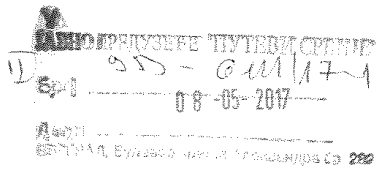
Grievances are to be resolved within 15 working days.

<table>
<tr><td colspan="5">Grievance Reference Number:</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 box</td><td>By post</td><td>By phone</td><td colspan="2">By e-mail</td></tr>
<tr><td colspan="5">Name and the identification information (from identity card).</td></tr>
<tr><td colspan="5">Details of your grievance. Please describe the problems, who it happened to, when, where and how many times, as relevant</td></tr>
<tr><td colspan="5">What is your suggested resolution for the grievance?</td></tr>
<tr><td rowspan="3">How to submit this form to /[name of concessionaire]</td><td colspan="4">By Post to:</td></tr>
<tr><td colspan="4">By hand:
please drop this form at:</td></tr>
<tr><td colspan="4">By e-mail:
Please email your grievance, suggested resolution and preferred contact details to e-mail:</td></tr>
<tr><td>Signature</td><td colspan="2"></td><td>Date</td><td></td></tr>
</table>

Appendix VI

Conditions from relevant public institutions

Република Србија
ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ СРБИЈЕ
03 Број: 020-751/3
Датум: 05.05.2017.
Нови Београд, Др Ивана Рибара бр. 91
Тел: +381 11/2093-802; 2093-803
Факс: + 381 11/2093-867



Завод за заштиту природе Србије, на основу члана 9. Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010 и 14/2016) и члана 192. став 1. Закона о општем управном поступку („Службени лист СРЈ“, бр. 33/1997 и 31/2001 и „Службени гласник РС“, бр. 30/2010), поступајући по захтеву Јавног предузећа „Путеви Србије“, Сектора за инвестиције, Београд за издавање услова заштите природе за израду техничке документације пројекта „Појачаног одржавања деонице државног пута ІБ реда бр. 35 (стара ознака: магистрални пут М-25), деоница Мерошина – Прокупље“, доноси

РЕШЕЊЕ

1. Предметно подручје, односно деонице пута се не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите. Сходно томе, издају се следећи услови заштите природе:

   1) Пројектом за појачано одржавање деонице државног пута ІБ реда, бр. 35, деоница Мерошина – Прокупље предвидети таква решења и мере које ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода (посебно Крајковачке, Југбогдановачке и Стржавачке реке, а и других водотокова).
   2) Саставни део предметног Пројекта треба да буде и део који се односи на организацију радилишта, при чему је неопходно дефинисати и обезбедити:
      - привремене локације за складиштење потребног грађевинског и другог материјала и опреме (уколико има потребе за тим) које не могу бити лоциране у обалском појасу река и на простору са високом вегетацијом, а ограничити их искључиво на време трајања радова;
      - привремене или трајне локације (постојеће уређене комуналне објекте/депоније) за одлагање и депоновање шута и другог отпадног грађевинског материјала у било каквом стању и комуналног отпада насталог у току извођења радова, као и забрану њиховог одлагања у обалском појасу река и пољопривредном земљишту, осим на локацијама дефинисаним Пројектом;
      - да се након завршетка предметних радова све површине које су на било који начин деградиране грађевинским и другим радовима, што пре санирају.
   3) При извођењу радова придржавати се трасе пута како манипулација возила и машина не би оставила последице на шири простор.
   4) На основу анализе постојећег стања и недостатака путног правца утврдити појачано одржавање кроз одговарајуће нивое и то: пресвлачење (ојачање) коловоза, обнову коловозне конструкције и обнову пута (коловоз и пратећи елементи коловоза) у границама постојећег путног земљишта.
   5) Пројекат појачаног одржавања путног појаса треба да обезбеди сигурност саобраћаја (видљивост, стабилност терена на путном правцу, итд.), угодну вожњу (оптичко усмеравање возача, призор, итд.), функционалност

(одржавање окружења пута, итд.) и минимално оштећење околног простора (спречавање ширење утицаја пута на околину).

6) Пројектом предвидети таложнике и сепараторе масти и уља за воде које настају спирањем са коловоза, посебно на траси пута дуж река, у циљу њихове заштите од загађења.
7) У зони прелаза пута (мостова) преко водотокова где је неопходно уређење, Пројектом предвидети употребу камена и других природних материјала, и у највећој могућој мери избећи бетонирање обала и корита водотокова (спровести тзв. натурално уређење водотокова) при чему је неопходно максимално очување самих корита, али и обала са постојећом вегетацијом.
8) Није дозвољено сервисирање возила и машина дуж трасе пута. Уколико дође до хаваријског изливања горива, уља/мазива и других штетних материја обавезна је санација површине и враћање у првобитно стање.
9) Предметне радове на траси пута која пролази кроз насељена места, изводити само у току дана због могућег утицаја буке од грађевинских машина и возила.
10) Предузети мере заштите становништва од удеса. У том смислу потребно је предвидети постављање заштитних ограда и пешачких прелаза и пролаза на местима где је то најцелисходније, нарочито на локацијама у близини постојећих насеља.
11) Током извођења радова дуж целе трасе одржавати максимални ниво комуналног реда.
12) По изведеним грађевинским радовима неопходно је што пре уклонити сву механизацију, грађевински материјал и друго. Уколико је дошло до нарушавања предметног подручја (терена дуж трасе) треба га санирати. У том смислу, успоставити биљни покривач (култивисати терен) на свим угроженим местима, применом одговарајуће флоре која је биолошки постојана у датим климатским условима (отпорна на штетне утицаје издувних гасова), као и да је избор врста усклађен са околним простором и његовом наменом (предлажемо аутохтону вегетацију која расте поред трасе пута).
13) Уколико се током радова наиђе на геолошко-палеонтолошка документа или минералошко-петролошке објекте, за које се предпоставља да имају својство природног добра, извођач радова је дужан да у року од осам дана обавести министарство надлежно за послове 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. За све друге радове/активности на предметном подручју, потребно је Заводу за заштиту природе Србије поднети нови захтев.

4. Уколико подносилац захтева у року од две године од дана достављања овог Решења не отпочне радове и активности за које је ово Решење о условима заштите природе издато, дужан је да од Завода прибави ново решење о условима.

5. Такса за издавање овог Решења у износу од 30.000,00 динара је одређена у складу са чланом 2. став 5. тачка 1. Правилника о висини и начину обрачуна и наплате таксе за издавање акта о условима заштите („Службени гласник РС“, бр. 73/2011, 106/2013). Подносилац захтева је дужан да наведену таксу уплати у корист рачуна Завода у року од 5 дана од дана достављања предрачуна.

Образложење

Јавно предузеће „Путеви Србије“ из Београда, Булевар Краља Александра бр. 282, Поштански фах 17, 11050 Београд обратило се Заводу дописом II бр. 953-6111 од 24.03.2017. године за издавање услова заштите природе за израду техничке документације пројекта „Појачаног одржавања деонице државног пута IБ реда бр. 35 (стара ознака: магистрални пут М-25), деоница Мерошина – Прокупље“ (укупне дужине деонице 11.503,0 km, почетак деонице 850,0 m пре уласка у Мерошину из правца аутопута а крај деонице је раскрсница улица Ратка Павловића и Вељка Миланковића Вука у Прокупљу).

На основу достављеног захтева и пратеће документације подносиоца захтева, утврђено је да је планирана рехабилитација пута и унапређење безбедности саобраћаја на државном путу IБ реда, бр. 35, деоница Мерошина – Прокупље. Предметни Пројекат је саставни део Пројекта рехабилитације путева и унапређења безбедности саобраћаја на мрежи државних путева која је подршка међународних финансијских институција Националном програму рехабилитације државних путева Републике Србије.

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

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

Планирани радови на изради техничке документације пројекта „Појачаног одржавања деонице државног пута IБ реда бр. 35 (стара ознака: магистрални пут М-25), деоница Мерошина – Прокупље“ могу се реализовати под условима дефинисаним овим решењем, јер је процењено да неће значајно 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, 57/2014 и 45/2015).

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

ДИРЕКТОР

Александар Драгишић

Достављено:
- Подносиоцу захтева
- Архиви 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: 404/3
Датум: 20.04.2017. год.

АА

Завод за заштиту споменика културе Ниш, на основу члана 104 Закона о културним добрима (Службени гласник РС бр. 71/94) и чл. 125, 131, 196, 197, 198, 199, 200 и 201 "Закона о општем управном поступку" (Сл. лист СРЈ бр.33/97, 31/01 и Сл. гласник 30/10) а у вези са чланом 99 и 27 Закона о културним добрима, решавајући по захтеву Јавног предузећа "Путеви Србије", са седиштем у Београду у Булевару краља Александра 282, доноси :

Р Е Ш Е Њ Е
О утврђивању услова за предузимање мера техничке заштите

I Мере техничке заштите: за израду техничке документације пројекта Појачаног одржавања деонице државног пута IБ реда бр. 35 (стара ознака: магистрални пут М-25), деоница Мерошина – Прокупље, могу се предузети под следећим условима:

- Уколико пројекат обухвата и земљане радове на ископу на самој траси пута или његовом проширењу, Инвеститор је у обавези да обезбеди стални археолошки надзор у току извођења земљаних радова;
- У случају да приликом земљаних радова открије до сада неевидентиран локалитет или његов део, инвеститор је дужан да одмах заустави радове и о томе без одлагања обавести Завода за заштиту споменика културе Ниш, обезбеди услове за археолошка истраживања, конзервацију и презентацију;
- Инвеститор је дужан да обезбеди средства за истраживање, заштиту, чување, публиковање и презентацију истог.

II Подносилац захтева дужан је 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 се доставља за потребе Завода.

IV Ово решење важи годину дана.

V Жалба на решење не задржава извршење.

2

Образложење

Јавно предузеће "Путеви Србије", са седиштем у Београду у Булевару краља Александра 282, поднело је захтев 953-6110 од 24.03.2017. године Републичком заводу за заштиту споменика културе Београд за утврђивање услова за израду техничке документације пројекта Појачаног одржавања деонице државног пута ІБ реда бр. 35 (стара ознака: магистрални пут М-25), деоница Мерошина – Прокупље. Републички завод за заштиту споменика културе Београд је овај захтев проследио дописом бр. 2/739 од 30.03.2017. и у Заводу за заштиту споменика културе овај допис је заведен под бр. 404/1 од 03.04.2017. године.

У циљу заштите н.к.д. и археолошких налазишта Јавно предузеће "Путеви Србије" дужно је да поступи по мерама прописаним овим решењем.

Имајући у виду наведено као и одредбе Закона о културним добрима које прописују обавезу предузимања мера техничке заштите у циљу очувања непокретног културног добра, донето је решење као у диспозитиву.

Чланом 104 став 3 "Закона о културним добрима" је прописано да жалба не задржава 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. ДИРЕКТОР ЗАВОДА

Елена Васић Петровић

Доставити:
- Подносиоцу захтева
- Документацији Завода

Република Србија
МИНИСТАРСТВО
ЗАШТИТЕ ЖИВОТНЕ СРЕДИНЕ
Број: 011-00-381/2017-02
Датум: 03.11.2017.
Београд

ЈП „ПУТЕВИ СРБИЈЕ“ БЕОГРАД

ул. Булевар Краља Александра 282
11000 Београд

Предмет: Допис у вези са захтевом за давање мишљења

Министарству заштите животне средине обратили сте се Захтевом за давање мишљења о потреби покретања процедуре у складу са Законом о процени утицаја животну средину („Сл.гласник РС“, бр. 135/04, 36/09) за пројекат појачаног одржавања државног пута IБ реда бр. 35 деонице: Мерошина – Прокупље (Орљане), дужина 11.503 км, стационажа: км 207+502 – км219+005, заведен под бројем 011-00-381/2017-02 од 31.10.2017 године.

У допису наводите да је предметни пројекат обухваћен и интегралним „Пројектом Рехабилитације путева и безбедности саобраћаја („Road Rehabilitation and Safety Project – RRSP”), који се финансира из међународног кредита. Пројекат подразумева грађевинско – путарске радове у оквиру трасе већ постојећег пута. Предметна деоница је у мрежи државних путева и представља део саобраћајне везе између граничног прелаза Ђердап и јужне Србије, као и Косова и Метохије.

Планирано је да се Главним пројектом за појачано одржавање путева обезбеди: повећање употребне вредности пута, трајност пута, побољшање безбедности саобраћаја, укључивање захтева локалне заједнице и усаглашеност са захтевима заштите животне средине у највећој могућој мери под датим условима просторног ограничења и ограничења који произилазе из типа дозвољених грађевинских и саобраћајних интервенција.

Сва решења приликом израде пројектне документације – Главни пројекат за појачано одржавање пута, морају бити у оквиру постојећег путног појаса (укупна ширина коловоза је 7.2 м), без експропријације нових површина земљишта. За рехабилитацију предметне саобраћајнице употребили би се уобичајени грађевински материјали за ову врсту радова (агрегат, цемент, бетонско гвожђе, итд.). Побољшање предметне деонице захтева коришћење енергената, укључујући електричну енергију и течна горива. Радови ће обухватити постојећу коловозну конструкцију, у постојећем путном профилу, са постојећим и санираним системом одводњавања уз пројектовање свих елемената који продужавају трајност радова и унапређују систем безбедности саобраћаја.

У току извођења радова неће се произвести никакви материјали који загађују животну средину и који би могли доспети у земљиште и подземне воде.

Грађевинске машине ће током радова производити буку повишеног нивоа али се тај утицај сматра привременим и неће представљати трајну сметњу за становништво у окружењу. Потенцијално загађење ваздуха ће се огледати у појави прашине током извођења радова и транспорта материјала као и кроз привремено загађење ваздуха услед рада мотора грађевинских машина

Уз Захтев је приложена и додатна документација:

- Закон о јавним путевима („Сл. гласник РС“ 101/2005), којим су дефинисане врсте радова, технички услови и начин извођења радова;
- Кратак опис пројекта;
- Решење о условима заштите природе бр. 020-751/3 од 05.05.2017. које је издао Завод за заштиту природе Србије;
- Решење бр. 404/3 од 20.04.2017. које је издао Завод за заштиту споменика културе Ниш;
- Графички прилог - прегледна карта;

На освову увида у захтев обавештавамо вас о следећем:

- У складу са члановима 3. и 4. Закона о процени утицаја животну средину („Сл.гласник РС“, бр. 135/04, 36/09) предмет процене утицаја на животну средину су пројекти који се планирају и изводе, промене технологије, реконструкције, проширење капацитета који могу имати значајан утицај на животну средину, а притом су садржани у Уредби о утврђивању Листе пројеката за које је обавезна процена утицаја и Листе пројеката за које се може захтевати процена утицаја на животну средину («Службени гласник РС», бр.114/08).

- Пројекат појачаног одржавања пута не представља предмет процене утицаја на животну средину и није сврстан у Листама пројеката из поменуте Уредбе, па сагласно томе *носилац пројекта није у обавези* да отпочне процедуру процене утицаја на животну средину у складу са чланом 8. Закона о процени утицаја на животну средину.

- Носилац пројекта је обавези да се приликом извођења радова на појачаном одржавању предметне саобраћајнице у потпуности придржава услова и мера заштите животне средине из 1) Решења о условима заштите природе и заштите животне средине бр. 020-751/3 од 05.05.2017 које је издао Завод за заштиту природе Србије, и 2) Решења са условима и мерама заштите непокретних културних добара бр. 404/3 од 20.04.2017. године које је издао Завод за заштиту споменика културе у Нишу.

ПОМОЋНИК МИНИСТРА
по решењу о овлашћењу
бр. 021-01-372/2017-01
од 26.07.2017.
Александар Весић

Доставити:
- Наслову
- Архиви

Designer:

Vladan Tasic, dipl-ing (Geol.)

Team Leader:

Goran Senica, M.Sc.C.E.