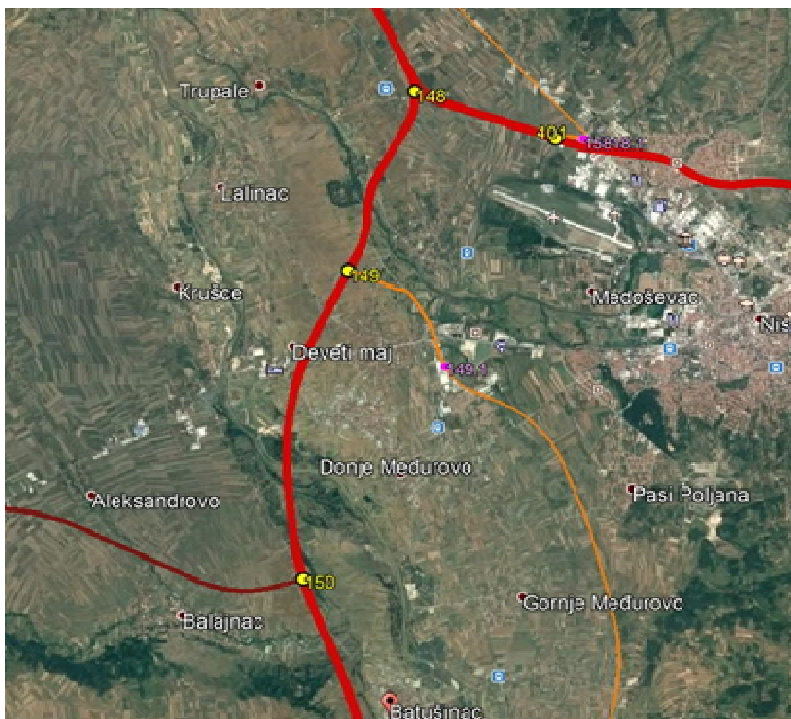


ENVIRONMENTAL MANAGEMENT PLAN - DRAFT 2-

Contract ID: RRSP/CS3-RRD3-3/2016-13

PREPARATION OF MAIN DESIGN FOR HEAVY MAINTENANCE (ROAD REHABILITATION - UPGRADING) OF THE STATE ROAD IA 1, SECTION: NIS 1 (TRUPALE) – NIS 3 (BATUSINAC), L = 9.206 km | NIS 3 (BATUSINAC) – NIS 1 (TRUPALE), L = 9.449 km

ENVIRONMENT CATEGORY B



October 2018.



Document Information

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TABLE OF CONTENTS

INTRODUCTION.....	1
EXECUTIVE SUMMARY.....	1
1. PROJECT DESCRIPTION.....	19
2. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK.....	24
3. BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY.....	25
4. SUMMARY OF ENVIRONMENTAL IMPACTS.....	28
5. ENVIRONMENTAL MANAGEMENT PLAN.....	30
A. MITIGATION PLAN.....	30
B. MONITORING PLAN.....	34
C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS.....	35
6. STAKEHOLDER ENGAGEMENT - INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION.....	37
7. REFERENCES.....	38
APPENDICES.....	39
Appendix 1 MITIGATION PLAN.....	40
Appendix 2 MONITORING PLAN.....	50
Appendix 3 LEGISLATION.....	66
Appendix 4 STAKEHOLDER ENGAGEMENT.....	68
Appendix 5 CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS.....	73
Appendix 6 FINAL ENVIRONMENTAL APPROVAL.....	81

ABBREVIATIONS AND ACRONYMS

CEP	Contractor's Environmental Plan
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMP	Environmental Management Plan
IFIs	International Financing Institutions
INCS	Institute for Nature Conservation of Serbia
IPCMN	Institute for Protection of Cultural Monuments Nis
MoEP	Ministry of Environmental Protection
MoCTI	Ministry of Construction, Transport and Infrastructure
PERS	Public Enterprise "Roads of Serbia"
PSC	Project Supervision Consultant
RE	Resident Engineer
RRSP	Road Rehabilitation and Safety Project
SE	Site Engineer
SLMP	Safety Labour Management Plan
WB	The World Bank Group
WMP	Waste Management Plan

INTRODUCTION

The Republic of Serbia has applied for financing towards the costs of the Road Rehabilitation Project (RRSP). International financing institutions are: World Bank, European Investment Bank and European Bank for Reconstruction and Development.

The Republic of Serbia plans to invest part of the funds for the project of heavy maintenance (road rehabilitation – upgrading) of the class IA road no. 1 section: Nis 1 (Trupale) – Nis 3 (Batusinac).

Environmental Management Plan (EMP) relates to the urgent maintenance and remedy of damages on the class IA state road no. 1 section: Nis 1 (Trupale) – Nis 3 (Batusinac), L = 9.206 km i Nis 3 (Batusinac) – Nis 1 (Trupale), L = 9.449 km.

The subject road section belongs to Nisavski Administrative District located in southeastern part of Republic of Serbia. The subject road section belongs to the state road IA no. 1 (old designation M-1) which represents the longitudinal highway traffic link towards north and south of Serbia and a part of the corridor 10. Intervention is planned for both lanes of the highway, where the section starts in front of the node 148 (km 431+611 interchange Ttrupale), the right lane 181 m, and the left lane 445 m, includes node 149 (interchange Nis south) and ends at the node 150 (interchange Merosina). Accordingly, the beginning of the section of the right lane is at chainage km 431+430, and the end of the section is at chainage km 440+636 (node 150 interchange Merosina). The beginning of the road section in the left lane is at chainage km 440 + 636 (node 150 Merosina interchange), and the end of the section is at the chainage km 431+166. The total length of the road which is the subject of main design is 18,655 km (both carriageways).

The purpose of the EMP is to present the negative environmental impacts and management problems during the construction works and the necessary mitigation measures to the Contractor must apply. Key components of the Environmental Management Plan are: Environmental Mitigation Plan and Environmental Monitoring Plan.

International financing institutions (IFI) have classified the project as environment category B, which requires an Environmental Management Plan to be carried out. Project Proponent is the Government of the Republic of Serbia, represented by the relevant Ministry, and the project is realised by PE “Roads of Serbia” (hereinafter PERS).

The design will be made in accordance with Serbian legislation and the conventions and safeguard guidelines issued by IFI. The Environmental Management Plan was carried out using theoretical studies, on-site investigation, and consultation with representatives of local and regional authorities.

EXECUTIVE SUMMARY

Project description

The subject road section belongs to Nisavski Administrative District located in southeastern part of Republic of Serbia. The subject road section can be classified into interstate road, since it belongs to the state road IA no. 1 (old designation M-1), and represents link

towards north and south of Serbia, and belongs to the international Corridor 10. Due to the traffic - geographic nature, the level of development and position in the road network, the road corridor, and therefore subject road section is of the utmost importance for the Republic of Serbia in the international connections between the countries of Europe, the Middle and Far East, Asia and North Africa. It is necessary to remedy the damage at the subject road section caused by erosive action of water and winter maintenance, to eliminate the causes of damage to the greatest possible extent, enhance operational value, durability of the road, and road safety.

The section starts in front of the node 148 (km 431 + 611 interchange Trupale) (Figure 1), 181 m on the right lane and 445 m on the left lane, covers node 149 (interchange Nis south) and ends at node 150 (interchange Merosina). Consequently, the beginning of the section on the right lane is at the chainage km 431 + 430, and the end of the section is at the chainage km 440 + 636 (node 150 of the interchange Merosina) (Figure 2). The total length of the road that is the subject of the Main Project is 18,655 km (both lanes).



Figure 1. The beginning of the road section – interchange Trupale



Figure 2. The end of the road section – interchange Merosina

Policy, legal and administrative framework

The Ministry of Environmental Protection (MoEP), former Ministry of Agriculture and Environmental Protection, is the key institution in the Republic of Serbia, responsible for producing and implementing the environmental policy.

Legislation in the field of environmental protection that is currently in force in the Republic of Serbia is summarized in the Appendix 3.

In the Republic of Serbia the procedure for Environmental Impact Assessment is governed by the Law on Environmental Impact Assessment, which is fully in accordance with the European Directive 85/337/EEC. Therefore, an environmental impact assessment is not required for road rehabilitation projects, except when a section is in the vicinity or passes through protected natural or cultural properties.

PE „Roads of Serbia” (PERS) submitted a request to the Institute for Nature Conservation of Serbia (INCS) in order to acquire the conditions under which the proposed design should be implemented. Acting on the request by PERS, the INCS issued a statement on conditions for nature protection 03 no. 020-2123/3 dated 26.09.2017. alteration 03 no. 020-1550/2 dated 28.06.2018

PE „Roads of Serbia“ submitted a request to the Institute for Protection of Cultural Monuments Nis (IPCMN) in order to acquire the conditions under which the proposed design should be implemented. Acting on the request by PERS, IPCMN issued a statement on conditions for protection of cultural monuments no. 1080/2 dated 20.09.2017.

A request for decision on the need for producing EIA Study is submitted to the MoEP together with other relevant technical documentation, including the conditions of the INCS and IPCMN.

Final Environmental Approval is obtained from the Ministry of Environmental Protection (MoEP) (No. 011-00-00189/2018-03 dated 12.03.2018.) stating that Project Carrier (PERS) is not obliged to conduct EIA procedure for this project. (Appendix 6)

Upon receiving mentioned documentation (the conditions of the INCS and IPCMN and the decision of the Ministry of Environmental Protection), as well as based on the conditions set in the Environmental Management Plan, PERS will ensure full implementation of environmental protection measures defined by the design and thus reduce the impact on local population and natural environment.

In accordance with a statement issued by the INCS, the subject road section is not located within a protected area for which a procedure for protection was carried out or initiated, but subject road section intersects the ecological corridor River Juzna Morava. It is requested to provide, through design proposal the functionality of the ecological corridors.

In the conditions of the IPCMN is written that along subject road section there is no immovable and movable cultural property of great importance. If the subject road section is passing close to registered archaeological localities, by the conditions If the project also includes excavation work on the road, the Client is obliged to provide permanent archaeological supervision during the execution of earthworks. In the event that during the excavation work an unrecorded site or part thereof is discovered, the Client is obliged to immediately stop the works and inform IPCMN without delay, provide conditions for archaeological research, conservation and presentation of the same. The Client is obliged to provide funds for research, protection, preservation, publication and presentation of the same

IFIs request that the design be prepared in line with laws of the Republic of Serbia, but also with the EU standards.

Creditors require that the following be applied:

- Environmental Impact Assessment Operational Policy (OP 4.01)
- Environmental and Social Policy, EBRD (2008)
- Environmental and Social Principles and Standards, EIB (2008)

The European Bank for Reconstruction and Development, European Investment Bank and the World Bank demand that the project complies with the laws of the Republic of Serbia and the European Union standards. World Bank Group requires that the project complies with the Serbian legislation and operational policies of the World Bank.

Baseline conditions assessed during route survey

The subject road section belongs to Nisavski Administrative District located in southeastern part of Republic of Serbia. Road section Nis 1 (Trupale) – Nis 3 (Batusinac) and Nis 3 (Batusinac) – Nis 1 (Trupale) belongs to state road IA no. 1 (old road designation M-1) (Official Gazzete RS no. 93/2015).

The subject road sections passes through The City of Nis and Municipality Merosina.

The subject section is crossed or parallel with the following watercourses at three locations:

- Juzna Morava 433 + 777 Nisava
- Kanal Konav 438 + 709 Juzna Morava
- Krajkovacka River-parallel to the road 438 + 709-440 + 636

Ditches (drainage canals) are stretch on both sides of the highway. Atmospheric water goes through the shoulder to the ditch. These canals are absorbent, which means that part of the collected atmospheric water is flowing into the underground, while the remaining part of atmospheric water evaporates into the atmosphere. At its greatest length, the ditches were neatly maintained and trapped in full length. The drainage canals along the road are in good general condition, and from intervention it is proposed to remove the accumulated material in them, as well as regular maintenance in terms of mowing the vegetation of the slopes and the bottom of the canal (Figure 3).



Figure 3. Ditch (drainage canal)



Figure 4. Ditch with concrete cover

On the subject section there are also ditches whose the bottom is covered with concrete. Existing ditches are in use to accept atmospheric waters from existing road culverts (Figure 4).

Shoulders

The shoulders are trapped along the whole section. Due to erosion of shoulders and grade separation in relation to the edge of the pavement (most of the shoulder is raised about 5 cm in relation to the edge of the pavement), there is drainage problem because part of the collected water runoff is not getting to the channels. The existing shoulders are maintained on some sections (Figure 5), and on some are overgrown with grass (Figure 6).



Figure 5. The maintained shoulder



Figure 6. The shoulder overgrown with grass

Curbs with gutters along the slope of the embankment

The curbs on certain sections are in good condition, drainage on these sections is done through the outflows along the slope of embankment over concrete gutters (Figures 7, 8, 9 and 10).

Concrete curbs are mainly grown in high grass but are in relatively good condition. The outflow canals with concrete gutters are covered with high grass and unrelated to the recipients.



Figure 7. The curbs



Figure 8. The outflow from the pavement into the concrete gutters



Figure 9. Drainage canal with concrete gutters



Figure 10. The outflow of drainage canal with concrete gutters

Curbs

Concrete curbs are mostly in the function, there are minor damages that can be repaired within a short period (Figure 11).

Concrete curbs are placed at the edge of the central reserve and, at certain distances (40-50m), they are poured into the pipeline through reinforced concrete manholes, or through cast iron drain covers which perform the role of manhole covers (Figure 12). The pipeline is located in the central reserve. Atmospheric water is led by pipelines to the culverts that are laid transversely in relation to the pavement. Water flows out of the culvert into the surrounding terrain or into existing open canals.



Figure 11. Concrete curb along the central reserve



Figure 12. The inflow curb in the manhole over the drain covers

On the subject section in front of the interchange where is the exit for Merosina, curbs with the manholes are placed on the right edge of the pavement. The throughput of the drain covers of some manholes are significantly reduced due to the accumulated material. It is necessary to remove this material for the normal functioning of the system.



Figure 13. The inflow curb in the manhole over the drain cover on the right edge of the pavement (interchange Merosina)

Culverts

Culverts have the function of leakage of collected atmospheric water from the pavement, as well as the atmospheric water in front of or behind objects such as overpasses or bridges. The general characteristics of the culverts are given in the table.

Table no. 1: The list of culverts on the subject section

Serial number	Chainage	Function	Form	Cross-section	Material
1	431+608 right	The leakage atmospheric water-overpass	Pipeline	Ø500	Concrete
2	431+608 left	The leakage atmospheric water-overpass	Pipeline	Ø500	Concrete
3	431+696	The leakage atmospheric water	Pipeline	Ø1000	Concrete
4	433+013	The leakage atmospheric water	Pipeline	Ø1000	Concrete
5	433+343	The leakage atmospheric water	Pipeline	Ø1000	Concrete
6	434+423 right	The leakage atmospheric water-overpass	Pipeline	Ø400	Concrete
7	434+423 left	The leakage atmospheric water-overpass	Pipeline	Ø500	Concrete
8	434+637	The leakage atmospheric water	Pipeline	Ø800	Concrete
9	435+007 right	The leakage atmospheric water-overpass	Pipeline	Ø700	Concrete
10	435+007 left	The leakage atmospheric water-overpass	Pipeline	Ø700	Concrete
11	436+122	The leakage atmospheric water	Pipeline	Ø1000	Concrete
12	436+744 right	The leakage atmospheric water-overpass	Pipeline	Ø500	Concrete
13	436+744 left	The leakage atmospheric water-overpass	Pipeline	Ø500	Concrete
14	437+000	The leakage atmospheric water-rest area	Pipeline	Ø1000	Concrete
15	437+105	The leakage atmospheric water-rest area left	Pipeline	Ø1000	Concrete
16	440+250	The leakage atmospheric water-separation left	Pipeline	Ø500	Concrete
17	440+622 left	The leakage atmospheric water-overpass	Pipeline	Ø500	Concrete

Bridges

Bridge over the Nisava river

Drainage is on the first side (the beginning of the bridge in the direction of growth of the chainage) access to the bridge is solved by the pipeline system of curbs, pipelines and manholes with the drain covers. At the outflow of the pipeline is made a concrete drainage surface between the two bridge constructions (Figure 14).



Figure 14. The outflow of the pipeline system down at concrete drainage surface



Figure 15. The bridge drains



Figure 16. The bridge drains

Work of the drainage of the bridge is done through the bridge drains which are not connected by the pipeline to the closed system. Connection of the drains should be the subject of a heavy maintenance project (Figures 15 and 16).

The proposed drainage solution from the bridge or in front of the bridge will be based on controlled drainage in the watercourse zone, 50-100 m in relation to the bridge contour. It is necessary to filter the flows before it passes into the recipient.

Bridge over the Juzna Morava

Drainage in front and behind the bridge is done by a curb system and drainage canals with concrete gutters along the slope of the embankment (Figure 17).



Figure 17. Drainage with a curb system and drainage concrete gutters in front and behind the bridge

Drainage on the bridge is done through bridge drains from which the atmospheric water flows out uncontrollably of the pavement (Figures 18 and 19).



Figure 18 and 19. The bridge drains

Connection of the drains should be the subject of a heavy maintenance project (Figures 18 and 19).

The proposed drainage solution from the bridge or in front of the bridge will be based on controlled drainage in the watercourse zone, 50-100 m in relation to the bridge contour. It is necessary to filter the flows before it passes into the recipient.

In the conditions of EP "Srbija Vode" is defined that conditionally clean atmospheric waters, which correspond to class II water, can be used without purification, through arranged discharge released into the canal, ameliorative canals streams, and other water courses, whereas the quality of the water defined by the Regulation on limit values for emissions of pollutants in water and deadlines for their achievement (Official Gazette, no. 67/11, 48/12 and 1/16).

Also, by the same previous conditions is defined that for atmospheric water from dirty and oily areas (traffic areas, handling areas, parking space, etc.) appropriate controlled reception and treatment at the facility for primary treatment before discharge to the recipient shall be provided, to the quality effluent (purified water) complies with class II according to the Regulation on Water Classification (Official Gazette of SRS, no. 5/68) and in accordance with the limit values for the emission of pollutants in water and deadlines for their achievement (Official Gazette, no. 67/11, 48/12 and 1/16). Surfaces from which oiled atmospheric water are collected must be waterproof.

In addition to the aforementioned Regulation, it is important to note that in the Republic of Serbia a Regulation on limit values of pollutants in surface and ground waters and sediments and deadlines for their achievement is in effect ("Official Gazette of RS, no. 50/2012).

Since the above mentioned condition PE "Srbija Vode" defines that the discharge of pollutants into water bodies must not exceed values that are defined for class II by the regulations, it is important to point out that the water of class II is the water which is suitable for swimming, recreation and water sports, the cultivation of less noble species of fish (cyprinids) and waters which after normal processing methods (coagulation, filtration and disinfection) may be used to supply the village with drinking water and in the food industry.

In addition to the conditions which are defined in conditions of PE "Srbija Vode", the specified requirements in relation to the drainage of rain water from the pavement of the subject state road and other roads in the area, are defined also in the context of urban planning documentation for the City of Nis and Municipality Merosina. Within the analyzed urban-planning documents, strict restrictions with regard to the requirements relating to the controlled collection and treatment of atmospheric water from the road pavement are defined in the zones of the water intake (water supply source). However, since the section of the state road that is the subject of this design is nowhere in contact with the water source protection zones for the settlements Nis and Merosina, it means that in this respect there are no special restrictions for the definition of design solutions.

The subject section is crossed at chainage 432 + 294.00 with railway Belgrade - Mladenovac - Nis - Presevo - state border (km 235 + 728 - railway chainage), the intersection of the highway overcrossing the railway (Figure 20).



Figure 20. Intersecton with railway

On the subject section there are 3 interchanges where the state roads connect to the highway that is the subject of rehabilitation. The aforementioned interchanges are at the following chainages:

- km 431 + 608.75 (intersection with the state road of the IA4 - node 148, interchange Trupale),
- km 435 + 007.00 (intersection with the state road of the IIA number 158 – node 149, interchange Nis south),
- km 440 + 622.35 (intersection with the state road of IB number 35 – node 150, interchange Merosina).

In addition to the aforementioned interchanges are connected the state roads with the subject section of the highway, it is important to note that the following interchanges - across / below the highway:

- km 432 + 773.19 (intersection with local uncategorized roads – through underpass of the highway)
- km 433 + 633.23 (intersection with local municipal road –by overpass of the highway)
- km 434 + 131.32 (intersection with local uncategorized roads - through underpass of the highway)
- km 434 + 423.40 (intersection with local municipal road - through underpass of the highway)
- km 435 + 861.30 (intersection with local municipal road - by overpass of the highway)
- km 436 + 744.82 (intersection with local municipal road - by overpass of the highway)
- km 438 + 083.35 (intersection with local uncategorized road - through underpass in roadbed of the highway).

At the chainage km 433 + 770.00 the road section crosses the bridge construction across the river Nisava, and on the km 438 + 709.00 across the river Juzna Morava. On the left side of the highway from km 439 + 100.00 to km 440 + 636.00 at a distance of 50 to 250m, the parallel of the subject route is followed by the Krajkovacka River.

The existing section belongs to the network of state roads and the highway network of the IA no. 1, and according with the conducted traffic analyzes and forecasts on the subject section, traffic is expected to increase.

Summary of Environmental Impacts

Due to the rehabilitation works involved, temporary negative impacts may occur at the location of the subject works, and may include interruption of traffic flow, decreased road safety, damages on access roads, dust and gas emissions and temporary disturbance of residents of the neighboring areas (due to air pollution and increased noise pollution). Short-term biocenosis disturbance may occur, and potential pollution of soil and water. Works in the quarry, borrow-pits and asphalt plants are performed outside the site and may cause negative impact if not managed properly. The existing road section belongs to a network of state roads and represents significant road with large traffic load, and after road rehabilitation, in accordance with the declared traffic analyses and forecasts, increase of road traffic is not expected. The vehicle speed after the upgrading will not increase.

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

Impact on the quality of water in the rivers Juzna Morava, Nisava and Krajkovacka reka are expected to be minimal or negligible, since the expected amount of water drained from the carriageway is small.

During the course of the works, wastewater may negatively affect the quality of ground and surface water. Because of this, appropriate mitigation measures and a monitoring plan have been provided for. During the road operational phase, only environmental accidents may lead to water pollution, in which case the relevant procedures (setting out actions to be conducted in accident situations), defined by Ministry of the Interior and in accordance with the Law on Water (Official Gazette of RS, No 30/10, 93/12 and 101/16), are applied. Negative cumulative effects may occur in the future (noise and air pollution) as a result of potential construction of new facilities near the road.

If measures from the Mitigation Plan are properly applied, occurrence of cumulative effects will be prevented or reduced to minimum.

Environmental Management Plan

EMP consists of the following: Mitigation Plan, Monitoring Plan and Institutional Arrangements and Reporting Procedures. As regards to the time, environmental mitigation refers to the design, heavy maintenance and operational phase of the road. Environmental Mitigation Plan sums up all the anticipated impacts, suitable mitigation measures in the design, heavy maintenance and operational phase, approximate location, time frame and responsibility for implementation and supervision. Monitoring Plan defines the parameters to be monitored and how they are checked, locations, duration, incidence, valid standards and criteria and also institutional responsibility for monitoring and supervision.

Contractor shall execute the works in accordance with the laws of the Republic of Serbia, EU standards and creditor's requests. During rehabilitation works, the Contractor is obligated to perform in accordance with Environmental Protection Plan (which is based on EMP) and which is approved by PERS. Contractor shall include all costs of the implementation of environmental mitigation measures into the total costs. Contractor shall also provide an expert responsible for coordinating the Environmental Protection Plan and EMP.

Stakeholder engagement - Information disclosure, consultations and public participation

In accordance with IFIs safeguard policy, public consultations will be organized and performed during the EMP preparation. In accordance with the World Bank Operational Policy OP 4.01 draft EMP document will be available to local communities within the premises of the local Municipalities, in the premises of PERS and on the PERS website.

Participation of stakeholders is significant in order to understand the nature and intensity of social and environmental impacts, as well as proposed measures for their mitigation. Public consultation is one of the ways to get feedback from stakeholders and enhance involvement of the local community in design implementation. The stakeholders may use a complaint mechanism that is publicly available (see Appendix 4)

Summary of public disclosure process

EMP will be presented to public and all the comments will be collected, but the conclusions will be presented in the report from public presentation, which will be included in this document.

1. PROJECT DESCRIPTION

The geometrical profile, since it is a standard highway section, consists of a pavement divided by a central reserve along directions. Both pavements consist of overtaking, centre and nearside lanes, total width 10.70m, with the width 3.75 m of the overtaking and centre lane and the width of nearside lane is 2.50 m. The central reserve width is about 4.00 m.

Shoulder width varies from 1.5 to 2.0 m, in some places is widened. The subject section of the road is mostly in the embankment, except for short parts of the route where it is in a half cut or in cut.

The major part of the section is in the classic embankment, in such a way that water runs down from the carriageway via a shoulder to the trench.

New designed geometrical profile consists of:

- Traffic lane	4x3.75	=	15.00m
- Nearside lane	2x2.50	=	5.00m
- Marginal strip	2x(0.50+0.20)	=	1.40m
- Central reserve	1x4.00m	=	4.00m
- Shoulders	2x1.50m	=	3.00m

IN TOTAL = 28.40m

Total width of the subject road is 2 x 10.70 m, with a central reserve of 4.0 m and shoulders on both sides of 2 x 1.50 m.

The axis for the subject section was taken from the Main project for rehabilitation of the highway E-75: Nis (pay station Nais) - Pecenjevce (km 807 + 800 - km 844 + 804) made in 2003 by the project organization "Centar za puteve Vojvodina" , A.D., Novi Sad. The axis is defined in the middle of the central reserve and it is a rehabilitation of the pavement on the highway profile with twice by two traffic and nearside lanes.

The existing width of the carriageway is variable. On the open section, the width varies between 10.60 and 10.80m, while in the zones of paralleling of the inflow/outflow lane the width varies between 11.40 and 14.00m. In accordance with the aforementioned existing widths and widths required by the rules, the designer is predicted widening of the pavement only in the zones of useful parallel inflow / outflow lanes, while the needs for widening on the open section are negligible, especially when considering the existence of a nearside lane on the whole section of the highway.

Location Description

The subject road section belongs to Nisavski Administrative District located in in southeastern part of Republic of Serbia. Road section Nis 1 (Trupale) – Nis 3 (Batusinac) and Nis 3 (Batusinac) – Nis 1 (Trupale) belongs to state road IA no. 1 (old road designation M-1) (Official Gazzete RS no. 93/2015), which represents the longitudinal highway traffic link towards north and south of Serbia and a part of the corridor 10.

The subject section is located through the City of Nis and the Municipality of Merosina.

According to the Project task, it is defined that the section starts in front of the node 148 (km 431 + 611 interchange Trupale), 181 m on the right traffic lane and 445 m on the left traffic lane, includes the node 149 (interchange Nis south) and ends in the node 150 (interchange Merosina). Accordingly, the start of the section on the right traffic lane is at the chainage km 431 + 430, and the end of the section is at the chainage 440 km + 636 km (node 150 of the interchange Merosina). The beginning of the section on the left traffic lane is at the chainage 440 km + 636 km (node 150 of the interchange Merosina) and the end of the section is at the chainage km 431 + 166.

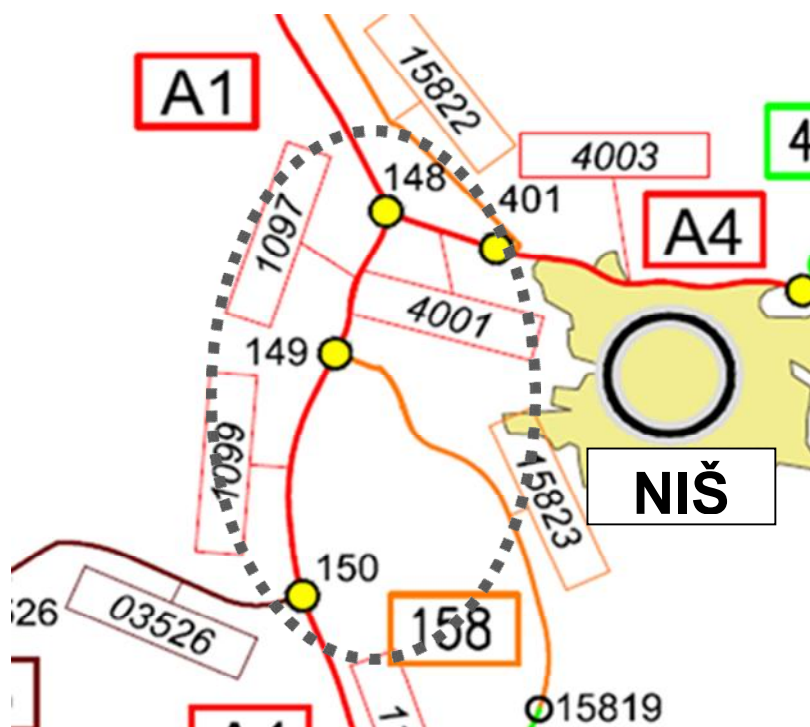


Figure 21. Location of the subject road section

Rehabilitation works description

The project predicted the rehabilitation of the existing pavement of the highway with an inconsiderable widening in the zones of parallel inflow/outflow lanes.

For rehabilitation are all traffic lanes of the subject section of the highway as well as all manipulative lanes (inflow/outflow) to physical separation from the pavement of highway.

In addition to this, in order to increase traffic safety, it is predicted to set up the corresponding horizontal traffic signs with checking whether the existing traffic signs are in accordance with the applicable standards, as well as amendment of vertical traffic signs.

The project solution predicted the rehabilitation of all elements of the drainage system and bringing it into functional condition.

In addition to the aforementioned subject documentation, rehabilitation of existing objects, culverts, bridges, as well as the renovation of a guardrails are foreseen.

The general aim of preparation of the subject technical documentation is rehabilitation of all damages by removal of the causes that led to damage thereby increasing the durability and use-value and improving traffic safety.



Figure 22. Example of damage of the road section



Figure 23. Example of damage of the road section

As already mentioned, the subject section is a typical highway and nearby subject section there are no local connections of factory complexes and significant facilities. Also, nearby subject section there is no landfills, quarries, schools or any other content that has an influence on traffic, cycling and pedestrian paths.

In general, on subject section can be defined certain system of drainage:
-drainage of atmospheric waters is done through a shoulder in the surrounding terrain at the places that do not gravitate to existing watercourses-places of low embankments

-km 431 + 430 – km 431 + 488 right side

-km 431 + 870 – km 432 + 057 right side

-km 432 + 858 – km 433 + 013 right side

-km 433 + 941 – km 434 + 637 right side

-km 435 + 226 – km 435 + 447 right side

-km 435 + 487 – km 437 + 057 right side

-km 437 + 022 – km 437 + 808 right side

-km 432 + 878 – km 433 + 063 left side

-km 433 + 146 – km 433 + 500 left side

-km 433 + 841 – km 435 + 837 left side

-km 435 + 126 – km 437 + 787 left side

-km 440 + 096 – km 440 + 636 left side

-drainage is done through the shoulders in the existing open canals and culverts and from them to the surrounding terrain

-km 431 + 488 – km 431 + 870 right side

-km 434 + 637 – km 435 + 226 right side

-km 433 + 063 – km 433 + 146 left side

-km 433 + 500 – km 433 + 698 left side

-km 435 + 005 – km 435 + 126 left side

-drainage is done along the curb system and drainage concrete through the slope in the surrounding terrain-high embankment

-km 432 + 057 – km 432 + 216 right side

-km 432 + 347 – km 432 + 858 right side

-km 435 + 447 – km 435 + 487 right side

-km 437 + 105 resting-right side

-km 432 + 347 – km 432 + 878 left side

-km 437 + 787 – km 438 + 602 left side

-km 438 + 782 – km 440 + 096 left side

-drainage is done along the curb system and drainage concrete gutters through the slope in the existing open canal-high embankment

-km 437 + 808 – km 438 + 602 right side

-km 438 + 786 – km 440 + 035 right side

-drainage is done by a closed system in the central reserve (inflow from the curbs to the manhole, from the manhole to the pipeline, which then flows into the existing culvert)

-km 433 + 013 – km 433 + 700 drainage of the right side

-km 440 + 095 – km 440 + 636 drainage of the right side

-km 431 + 166 – km 432 + 237 drainage of the left side

-km 433 + 941 – km 433 + 637 drainage of the left side

- drainage of the bridge and overpass are done by the drain system from which the atmospheric water is poured out uncontrollably

-km 432 + 216 – km 432 + 347 - overpass across railway Belgrade-Nis

-km 433 + 700 – km 433 + 844 - bridge across the river Nisava

-km 438 + 602 – km 438 + 786 - bridge across the river Juzna Morava

The project solution was considered for each method of drainage of atmospheric water, which was registered in the analysis of the existing condition.

Part of the projected canal is located parallel with the Krajkovacka reka. The recipient of this projected canal is Juzna Morava. Immediately before the inflow, an inflow manhole is designed from which the atmospheric water enters in the separator of oil derivatives. In

the separator, the water is purified up to the values determined by the Decree on the Limit Values of Emissions of Pollutants in Water and the Deadlines for their reach (Official Gazette RS, no. 67 / 2011,48 / 2012 and 1/2016). Juzna Morava belongs to the III and IV classes of water.

-drainage is done by a closed system in the central reserve (inflow from the curbs to the manhole, from the manhole to the pipeline, which then flows into the existing culvert)

Atmospheric water is collected by curbs and atmospheric water inflows into the manholes-drains, and from them into the pipeline leading to the culverts. Manholes- drains are located at the foreseen distances, so that there is no unauthorized flooding of the traffic lane. Only atmospheric water from the culverts is purified which is the part of this system, located in the zone of two bridges (Nisava and Juzna Morava).

-drainage of the bridges and overpasses by a drain system which is connected by a pipeline (closed sewage system)

-km 433+700 – km 433+844 - bridge across the river Nisava

The right side of the highway before the bridge is drained by a pipeline system of the curbs, pipelines and manholes with drain covers. At the outflow of the pipeline, a concrete drainage surface between the two bridge structures was made. Atmospheric water, after drainage surface through inflow manhole, is piped to the shared manhole in which the pipeline is inflow from the bridge and the projected concrete canal on the left side of the highway that drains the water from the pavement through the shoulder. The length of the projected concrete canal on the left side of the highway is 50-100m. From the shared manhole, atmospheric water is piped to the separator of oil derivatives and leads through the front of the culvert into the river Nisava.

After the bridge, a concrete canal is also projected on the left side of the highway into which the atmospheric water flows through the shoulder. In the shared manhole is connected pipeline for the atmospheric water from the bridge and a projected concrete canal. The length of the projected concrete channel on the left side of the highway is 50-100m. From the shared manhole, atmospheric water is piped to the separator of oil derivatives and leads through the front of the culvert into the river Nisava.

-km 438+602 – km 438+786 - bridge across the river Juzna Morava

Drainage in front and behind the bridge is done by a curb system and drainage canals with concrete gutters along the slope of the embankment. In the zone of the bridge on the left and right sides **in front of the bridge**, the atmospheric water is drained by a curb system through with concrete gutters into the projected concrete canals. The concrete canals on the both sides of the bridge are drained to the shared manholes where they connect with the pipelines that drain the atmospheric water from the bridge construction. From the shared manholes, atmospheric water is pipelined to a separator of oil derivatives and leads through the front of the culvert into the river Juzna Morava.

In the zone of the bridge on the right side **behind the bridge**, the atmospheric water is drained by a curb system through with concrete gutters into the projected concrete canals. The concrete canals is drained into a shared manhole where it connects with a pipeline that drains the atmospheric water from the bridge construction. From the shared manhole the atmospheric water with the pipelines lead to a separator of oil derivatives and, through a concrete the front of the culvert, into the river Juzna Morava.

In the zone of the bridge on the left side **behind the bridge** drainage is done along the curb through concrete gutters through the slope of the projected open canal that flows into the river Juzna Morava, and partly is located parallel with the Krajkovacka River (km 438 + 751-km 440 + 220) which is processed with in one of the descriptions of previous solutions.

2. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Relevant Institutions

The relevant Ministry of Environmental Protection of the Republic of Serbia is responsible for producing and implementing the environmental policy. Other relevant institutions are: PERS, Institute for Nature Conservation of Serbia (INCS) and Institute for Protection of Cultural Monuments Nis (IPCMN).

Existing Serbian legislation

The environmental laws and by-laws in force in the Republic of Serbia are summarized in Appendix 3.

EIA procedure in the Republic of Serbia

According to the Serbian Law on EIA (Official Gazette 135/04, 36/09) full EIA procedure, including preparation of EIA Study are not necessary for road rehabilitation projects, except when there are protected natural or cultural properties nearby. In such cases the Project Proponent shall submit a Request for Decision about Need for Environmental Impact Assessment to the MoEP. The Law on Environmental Impact Assessment regulates the EIA procedure and is in accordance with European Directive EIA - 85/337/EEC.

In the statement 03 no. 020-2123/3 dated 26.09.2017. and alteration 03 no. 020-1550/2 dated 28.06.2018. Institute for Nature Conservation of Serbia (INCS) the issued conditions for the subject road section. By reviewing the Central Register of Protected Goods and documentation of the INCS, and in accordance with the legislation governing the field of nature protection concluded that the subject area is not situated within a protected area, but subject road section crosses ecological corridor River Juzna Morava. Since the works are planned only in the existing road area, planned works do not endanger nearby area of ecological corridor.

In the statement no. 1080/2 dated 20.09.2017 Protection of Cultural Monuments Nis (IPCMN) issued technical protection measures needed for development of project technical documentation. It states that there is no immovable cultural property of great importance and that it is necessary to notify Institute when the works are about to begin, as well as obligations of the Contractor/Client during the project implementation.

Final Environmental Approval is obtained from the Ministry of Environmental Protection (MoEP) (No. 011-00-00189/2018-03 dated 12.03.2018.) stating that Project Carrier (PERS) is not obliged to conduct EIA procedure for this project. (see Appendix 6). Consequently, that there is no need for producing the Environmental Impact Study of the subject section of the state road.

Relevant IFIs Policies and Statements

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

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

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

3. BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY

The subject road section Nis 1 (Trupale) – Nis 3 (Batusinac) and Nis 3 (Batusinac) – Nis 1 (Trupale) belongs to Nisavski Administrative District located in southeastern part of Republic of Serbia, to the City of Nis and Municipality Merosina.

There are no protected natural or cultural properties in the vicinity of the subject road section. On the other side, part of the subject road section intersects ecological corridor River Juzna Morava. Anyhow the ecosystem of River Juzna Morava is not exposed to risk from the existing road, since an appropriate system for runoff water exists, which will be kept and improved according to this rehabilitation design, and all other works which are proposed with this design will be conducted only in the existing road area and completely in accordance with Statement 03 no. 020-2123/3 dated 26.09.2017. issued by INCS.

On the subject section there are places for resting on the following chainages:

- km 437 + 000.00, rest area on the left of the highway,
- km 437 + 105.00 rest area on the right side of the highway.

Rest areas are designed to temporarily stop for all types of vehicles, with parking lots for passenger cars, trucks and buses. Both rest areas are in good condition and are not foreseen for rehabilitation. Only the acceleration and deceleration lanes to physical separation from the main direction of the highway, were processed by the project.



Figure 24. The rest area with a parking lot

For both subject traffic lanes, before and after the interchange "Nis jug", which is also the only place where increase and traffic decrease is possible, continuous traffic counting was performed and an existing traffic load of 13857 vehicles/day was obtained.

As already mentioned, the subject section is a typical highway and nearby subject section there are no local connections of factory complexes and significant facilities. Also, nearby subject section there is no landfills, quarries, schools or any other content that has an influence on traffic, cycling and pedestrian paths.

There are no protected natural areas along the subject road section that could be influenced by the works on heavy maintenance, and also there are no protected cultural areas. Subject road crosses the environmental corridor River Juzna Morava so the importance of following of this document is even more emphasized. In the implementation of the project, there will be no new land acquisition, as defined by OP 4.12. since the road widening will be done on public land (in the road area).

Settlements

The City of Nis

The city of Nis consists of five municipalities: Medijana, Niska Banja, Palilula, Pantelej, and Crveni Krst. The territory of the city of Nis has a total area of 59 678 ha. According to the functional and hierarchical structure of the Center at the level of the Republic of Serbia, Nis is a center of international importance in common with Novi Sad and Prishtina.

According to the last census (2011), there are 260.237 inhabitants in the city of Nis in 5 municipalities. The City of Nis has an average population density of 436 inhabitants per 1km² and the second is the largest city in Republic of Serbia.

In the area of the city of Nis there is an infrastructure of three types of traffic: road, rail and air.

Traffic and geographical position of city of Nis, which is located on Pan-European Corridor X, on crossroad of most important European road and railroad directions, represents basic potential of social, economic and spatial development of the area. Through the direction of the Corridor X, all the traffic flow is concentrated in direction of North-South, which is, at location of Nis, separated in two new directions, towards Thessaloniki and Sofia.

Municipality Merosina

The area of the Municipality of Merosina covers an area of 19 300 ha. By size, the Municipality of Merosina belongs to the smaller municipalities of the Nisava District and occupies 7% of the Nisava District territory. According to the last census (2011), there are 13.968 inhabitants. The Municipality of Merosina has an average population density of 72.37 inhabitants per 1km².

Bicycle traffic

It is very important to note that this documentation does not consider pedestrian and bicycle traffic because it is a state IA road of highway. According to the subject section there are no bus stops.

Railway traffic

The subject section is crossed on the chainage km 432+294.00 with the railway Belgrade - Mladenovac - Nis - Presevo - state border (km 235+728 - railway chainage), the intersection of the highway overcrossing the railway, so that rail and road traffic are undisturbed.

Watercourses

All of the mentioned watercourses flow and cross the Nis 1 (Trupale) - Niš 3 (Batušinci) and Niš 3 (Batušinci) - Niš 1 (Trupale) section, in the previous sections of the document are described in detail at the places where they cross with the road infrastructure.

Juzna Morava

Juzna Morava is formed from Binacka Morava and Presevska Moravica, it is long from the source 295 km and flows mostly north-south. Juzna Morava joins with the Zapadna Morava and where they make the Velika Morava, in long of 246 km. The river flow of Juzna Morava is a composite valley. It makes alternation of the gorges and hollows.

Nisava

The Nišava River flows through Bulgaria and Serbia, in long of 218 km, the longest tributary of Juzna Morava. The river flow of Nisava connects the cities of Dimitrovgrad, Pirot, Bela Palanka, Niska Banja and Nis. The subject section is intersected with Nisava,

in the settlement Trupale, Palilula and Crveni Krst, while the Municipality of Merosina is not touching.

Krajkovacka reka

Krajkovacka reka is the left tributary of the Juzna Morava, flows through the Municipality of Merošina. The length of the Krajkovacka reka is 22, 46 km from the firth of the Juzna Morava to the Krajkovacka reka. The Krajkovacka reka is partitioned in the slopes of Mali Jastrebac- mountain, where jointly with the Krivajski potok supplies artificial reservoir Krajkovacko jezero- lake.

Air

There are no significant additional sources of air pollution within the planned road section Nis 1 (Trupale) – Nis 3 (Batusinac) and Nis 3 (Batusinac) – Nis 1 (Trupale). No information on the measured air pollution values on the subject section was available.

On the basis of traffic counting performed in recent years (information available on PERS website), no increase in the traffic volume is anticipated after heavy maintenance. In the road rehabilitation and operational phase, no increase in the air pollutants concentration is expected.

Noise

Based on the current and expected traffic loading during and after the works, no increase in the existing noise level is expected.

4. SUMMARY OF ENVIRONMENTAL IMPACTS

During the road rehabilitation and operational phase, there are certain environmental impacts listed below, together with the intensity of their actions.

INFLUENCE	SIGNIFICANCE	COMMENT
Impacts on land use and settlements	low	During the realization of the project, there will be no expropriation of land
Ground and surface water	low	Due to low amount of water that can come to the recipient by drainage, the consequential impact is minimal to negligible
Air quality	low	Temporary impact
Flora and fauna (protected areas and species)	low	Under the terms of the Institute for Nature Conservation of Serbia
Monuments	low	Under the terms of the Institute for Protection of Cultural Monuments Nis
Noise	low	Temporary impact
Access/crossing points of the main road and local roads	low	The rehabilitation and widening works will not affect existing crossing points. Without impact.
Soil management	low	With the application of appropriate measures of waste management.
Waste	low	Ensured through environmental

		management – waste and wastewater management plan will be prepared and implemented
Cumulative impacts	Moderate/minor	Temporary, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only

Most of the impacts on the environment are temporary and stops after the completion of works on heavy maintenance on the section Nis 1 (Trupale) – Nis 3 (Batusinac) and Nis 3 (Batusinac) – Nis 1 (Trupale). The project is classified as environmental category B due to a small impact on the environment. After completion of the works, increase of road traffic is not anticipated, and potential increase of vehicle speed will be regulated through a safety design, by applying active and passive speed control measures.

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

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

Overview of Key Impacts

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

Noise and Air Pollution in Residential Areas

During the rehabilitation works, use of construction machinery and equipment with exhaust fumes leads to an increase in the concentration of nitrogen oxide and sulfur oxide in the air. Local residents will be temporarily impacted by non-significant air and noise pollution and dust emission.

Possible water contamination

Water pollution may occur on site, on the locations where the equipment, vehicles and machinery are washed and also on the parking area. The contaminated water shall be filtered through a gravity oil-water separator. If there is a spillage on the road, especially near the rivers Juzna Morava, Nisava and Krajkovacka reka, the Contractor shall use absorbent materials and remove the contaminated layer of soil, which is then transported to a location defined in the Law on Water.

Potential Cumulative Impacts

If any industrial facilities are built in the vicinity of the section in the future, this may have cumulative negative effects on the environment. Whether this will be the case, depends also on the nature of industrial facilities and if they cause pollution themselves. If the EMP is properly implemented, all negative effects on the people and the environment resulting from cumulative impacts will be reduced.

Other Impacts:

- ❖ Social impacts: in the construction phase, these include all social-economic conflicts, including health and safety. All temporary locations used for activities that have short-term impact are included, such as quarries and borrow-pits, locations for stockpiling surplus soil and asphalt plants are included in this. Impact of these types of activities is expected to cease when the Project is ended and the Contractor leaves the subject location;
- ❖ Pollution: during the heavy maintenance works, a steady, though not significant emission of pollutants is expected. These include: air pollution, water pollution, soil pollution, noise and vibrations;
- ❖ Solid waste: activities on the heavy road maintenance are expected to generate a certain amount of solid waste, which is collected on site and transported onto a landfill (determined by the local community in agreement with the contractors), outside the construction site. According to the Spatial Plan of the administrative area of the City of Nis, the plan is construction and organization of a regional landfill with a recycling center, if the design and construction of the sanitary landfill are completed on the section, the recommendation is to use this landfill or any other that is according to the European standards and in accordance with the legal regulations of the Republic of Serbia.).

5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for urgent maintenance and remedy of damages on the section Nis 1 (Trupale) – Nis 3 (Batusinac) will be insignificant and reversible. Mitigation measures provided in the EMP, relating to the design, construction and operational phase, must be carried out appropriately. EMP consists of the Mitigation Plan and Monitoring Plan and is based on the types of environmental impact, their scope and duration. PERS manages the design, supervision and the contractor in the implementation of EMP.

A. MITIGATION PLAN

The Environmental Mitigation Plan defines the environmental impacts and measures to be implemented during the design, construction and operational phase (Appendix 1). The Plan conforms to the conditions received from the Institute for Nature Protection and Serbian Institute for Protection of Cultural Monuments Nis and valid laws. It states the locations, time frame, responsibility for its implementation and supervision. Costs of mitigation measures are included in the cost of the works. Contractor shall implement the environmental mitigation measures, include them in the total costs, and execute the works in accordance with national laws, EU standards and creditor's requests.

Site Organization Plan

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

- ❖ Temporary locations for storing the construction and other material and equipment must be outside the area with high vegetation and river flood areas and limited only to the duration of the works;
- ❖ Temporary or permanent locations must be provided (the existing organized communal facilities/ landfills) for disposal and tipping of debris and other waste material in any form and communal waste produced during the works. Waste disposal/ dumping into the rivers: Juzna Morava, Nisava and Krajkovacka reka littoral zone shall be prohibited, as well as at the unorganized local waste dumps;
- ❖ After the completion of the works, all areas that have been degraded in any way by road rehabilitation works must be rehabilitated as soon as possible;
- ❖ During the works, the planned road sections and corridors around it must be followed, so that the earthworks and machinery do not affect the surrounding areas. Also, the existing road network must be used, without building new roads, to prevent habitat fragmentation;
- ❖ During the road works directly along the rivers: Juzna Morava, Nisava and Krajkovacka reka, river bed, river bank and littoral vegetation must be preserved as much as possible;
- ❖ Vehicle and machinery servicing on the road section shall be prohibited. In the event of a road traffic accident resulting in oil or service fluids spillage, the road area must be cleaned and reinstated;
- ❖ On the parts where the section is located in a populated area the works must be performed only during the day, to minimize the impact of noise on local residents;
- ❖ Guardrails and pedestrian crossings must be placed where necessary;
- ❖ Locations for containers for temporary tipping of communal waste produced during the works must be determined;
- ❖ The area for Contractor's facilities must be of the smallest possible size, to avoid unnecessary removal of vegetation. All facilities must be fenced;
- ❖ Appropriate drainage of the site must be provided. Locations used for car parking, workshops and fuel storages must be drained toward the oil-water separator;
- ❖ Only trained workers, who can remove any consequences of accidental spillage, may handle the fuel;
- ❖ Waste oil, oil filters and fuel must be stored on safe locations.
- ❖ Sanitary wastewater and polluted water must be treated before the water is discharged into the surface water flow system, in line with the Law on Water (RS Official Gazette of RS, No 30/10, 93/12);
- ❖ Contractor must provide safety measures to prevent soil erosion and use the methods to decrease the stormwater runoff that carries eroded material;
- ❖ Excavations and machinery works must be avoided when the soil is damp;
- ❖ Upon the completion of works, machinery, construction material, containers and all other equipment must be removed in due time;
- ❖ When the site is ready to be closed, all contaminated soil must be excavated and replaced with a new layer of soil;
- ❖ Upon the completion of works, the soil must be cultivated on all the critical locations, using suitable plants which are biologically adapted to the subject climatic conditions, resistant to air pollution and visually fitting for the surrounding area. Invasive species, such as the black locust, Indigo bush, ash leaf maple, ailanthus,

American ash and species that cause allergic reactions, such as poplar, should be avoided.

PERS is responsible for checking, via his Supervision Consultant, if the Site Organization Plan includes the requirements from EMP and Safety Labor Management Plan (SLMP).

Environmental Protection Plan

Based on the EMP, the Contractor shall prepare his Environmental Protection Plan and submit it to PERS for approval, and by the financier. Contractor shall be obligated to follow and to implement the plan with continuous supervision of plan implementation by consultant for supervision of road rehabilitation works at the site.

The contractor is required to have a qualified and experienced person in the team, which will be responsible for coherence between the works, the environment and the Environmental Management Plan. Public Enterprise "Roads of Serbia" will independently monitor the works, and if any irregularity is noticed, it will be transmitted to continuously present Supervision, and The Contractor will be requested to rectify such irregularities.

Environmental Protection Plan consists of the following:

1. *Site Management Plan* – defines the procedures for setting up and functioning of a site with a view to preserving the local community and natural resources.
2. *Site Organization Plan* – description and arrangement of areas, with maintenance equipment and oil and lubricant storage facilities, including the distance from water areas;
3. *Oil and Fuel Storage Management Plan* – procedures for storing, transporting and using oil and fuel, refueling the facilities and machines, procedures for decreasing the risk of water and soil pollution. Vehicles used for refueling will have the suitable equipment used for cleaning fuel spills. All classes of spills will be reported in line with the Plan;
4. *Waste Management Plan* – contains details of temporary waste storage, waste transport and treatment before its final disposal or recycling. Licensed facilities must be used for storing solid and liquid waste and the waste leaving the site must be traceable, in accordance with the jurisdictions. As part of the Plan, Contractor shall provide chain-of-responsibility forms for the waste that leaves the site. Therefore, waste controller shall keep one copy of the form, and the driver shall have a copy, to make sure that all the listed waste is brought to the landfill. Contractor shall keep all records for audit purposes.
5. *Sewerage and Waste Water Management Plan*
6. *Soil Management Plan* – steps to be taken to minimize the effect of erosion, measures to reduce topsoil depletion, transport roads and landfills;
7. *Noise* – all the equipment must have a license and must be approved in accordance with the EU standards. This applies to all machinery, vehicles and sites where noise and vibrations affect the noise-sensitive receptors. In accordance with the Law on Protection against Environmental Noise (RS Official Gazette No 36/09, 88/10), Contractor is responsible for ensuring the noise and vibrations do not affect the local community. Contractor shall limit his works to a period from 07:00 am to 07:00 pm.
8. *Dust Emission Reduction Plan* – during the works, when dust may form, Contractor shall monitor the conditions on site and application of measures to control dust

- emissions, which include reduced traffic during road rehabilitation works and spraying water on the exposed surfaces;
9. *Material Excavation and Extraction Location Plan* – defines the reparation measures to be implemented for the areas of borrow-pits and access roads after the project is finished;
 10. *Management Plan for Works on the River* – includes plans and procedures for water habitat and fish preservation during the works.
 11. *Emergency Response Plan* – sets out the procedures for reacting in case of emergency or accidents of a bigger or smaller scale, to protect the people, property and natural resources. Equipment to be brought on site to minimize the effects of the spillage of polluting substances must be included in the Plan.
 12. *Recultivation Plan* – cleaning and recultivation of the site and removal of Contractor's facilities. Contractor is responsible for clearing the site. This includes the removal of all waste material, machinery and contaminated soil. In line with the Law on Waste Management (RS Official Gazette No 36/09, 88/10, 14/10), Contractor shall develop a plan for handover, selling or removal of all vehicles and machinery, to remove them from site. All site and work areas will be rehabilitated, in order to be reinstated as much as possible. This includes stabilization and landscaping of all sites. In line with the Law on Environmental Protection (RS Official Gazette No 135/04, 36/09, 72/09,43/11, 14/16), after the works are completed, waste must not remain on site. If waste is not removed by the Contractor, PERS is entitled to withhold payment and organize the cleaning of the area. The costs of the cleaning and the administrative costs will be included in the final payment.
 13. *Plan of Environmental Complaints* – means used by the local residents and third parties affected by the project to call attention to environmental issues and file a complaint, defining how and to whom these should be addressed (Appendix 4, Grievance Mechanism);

Safety

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

- ❖ Contractor shall ensure that drugs and alcohol are not used on site;
- ❖ Contractor is to include in his Site Safety Plan a provision for safe working environment and safety measures and personal protective equipment (PPE) for all workers, including gloves, hard hats, goggles, ear protection and safety footwear;
- ❖ Site Safety Plan is to include a provision for first aid to be administered on site and a trained person must be engaged in line with the Law on Occupational Health and Safety (RS Official Gazette No 101/05, 91/15);
- ❖ Contractor shall provide to his workers potable water supply, toilets and water supply for washing;
- ❖ Safety Labour Management Plan is required to ensure health and safety provisions during the works on heavy maintenance;
- ❖ Contractor shall perform all project activities following the SLMP and all Serbian laws and by-laws regarding health and safety;

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

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

- ❖ Safe maintenance of all trucks and equipment;
- ❖ Appropriate training and responsible behaviour of all drivers and machine operators (prescribed in the Contractor's Site Safety Plan);
- ❖ Ensuring that all the truck load which may create dust emissions is covered and secured (e.g. excavated soil and sand);
- ❖ Safety and instant removal from site of the drivers who disregard any of the conditions regarding the safety of the local community;
- ❖ Obeying speed limits;

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

Operational Phase

In the road operational phase, special attention must be paid to safety of pedestrians, by using measures for traffic calming in the vicinity of schools and populated areas, improving road signs and markings, keeping a record of traffic accidents that are recurring on some locations, and marking them as black spots.

Regular road maintenance consists of the following: grass mowing, cleaning the drainage system, road patching and various repairs and regular checks and maintenance of drainage structures. Seasonal maintenance, regular maintenance of safety characteristics and road signs shall be performed as needed. Primary road maintenance, which includes asphaltting and major repairs, is usually planned for a period of a few years.

B. MONITORING PLAN

Basic components of the Monitoring Plan are:

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

A monitoring control list is prepared on the basis of EMP and Monitoring Plan (Appendix 2). The list is used by the supervision engineer on site. Signed control lists are submitted to PERS, which is responsible for compliance monitoring and reporting. PERS will have a Database of grievances, listing the information on complaints received from local communities and other interested parties. This includes: type of grievance, place, time, actions to be taken to resolve the grievance and the final outcome.

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS

Project Implementation

PERS is the institution responsible for implementing the project in accordance with the EMP and Monitoring Plan. Day-to-day project implementation and monitoring its compliance is the responsibility of the Project Supervision Consultant.

Before the start of the works on this section, PERS will submit to the Bank for their approval a specific EMP. Contractor will provide the results of “zero monitoring” prior to the start of the works, during the mobilization stage. Project Proponent shall do the following to ensure that the Contractor implements the proposed mitigation measures in the construction phase:

- ❖ Contractor shall prepare Environmental Protection Plan and take all steps to mitigate ecological effects as stated in the Environmental Mitigation Plan (Appendix 1);
- ❖ Contractor should not be compensated for the costs of the required mitigation measures and monitoring activities in the form of a specific item in the total price, except for the analysis of the quality of water and noise measuring. Contractor will be deemed to have included these costs in the total price. The actual costs of the analysis of water quality and noise measuring will be paid to the Contractor as part of a specific item in the total price. Failure to follow the requested environmental mitigation measures on the Contractor’s part will result in penalizing the Contractor in the form of negative points. Negative points have been established as a measure to stimulate the Contractor to perform his obligations in an organized and timely manner and perform his duty with a high degree of excellence. Negative points consist of two elements – numerical and financial. Each negative point is connected to a sum, representing a permanent reduction in payment for the determined non-conformances in contractual obligations. The number of negative points earned has a cumulative effect. Should the Contractor receive more than a certain number of negative points stated in the Contract, he will not be allowed to participate in PERS tenders in the next two years. Also, if the Contractor is awarded a certain number of negative points, the employer has the right to break the contract. Monetary value of each negative point and the deadlines for other possible actions by the employer must be clearly stated in the contract. Explanation for the application of these two measures – fees for specific costs and penalties for non-compliance should provide the implementation of all the requested environmental mitigation measures and monitoring activities.
- ❖ Contractor must be explicitly requested to employ an environmental expert. Contractor will be responsible for implementing environmental mitigation measures during road rehabilitation works and should employ an environmental specialist who will supervise the implementation of Contractor’s environmental responsibilities. This person will coordinate the work of the Contractor, PERS and the relevant ministry and will deal with every complaint received during the project implementation. In the course of the project, PERS will monitor if the Contractor complies with EMP provisions. Project Supervision Consultant is advised to employ an environmental expert (with knowledge of civil engineering and environmental management), to assist in environmental monitoring.

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

PERS shall also be responsible for the following:

- ❖ Implementation of the requests for environmental protection provided by: State environmental authorities, IFIs and other institutions, Law on Environmental Protection (RS Official Gazette No 135/04, 36/09, 72/09, 43/11, 14/16);
- ❖ Implementation of the requests for environmental protection through Contractor's specifications;
- ❖ Project supervision via consulting services for supervision and project implementation;
- ❖ Environmental monitoring supervision via consulting services for environmental monitoring;
- ❖ Preparation of final environmental reports.

Before the start of the road rehabilitation works, the Contractor will provide a proposal for environmental protection, including the safety of persons involved with the works, as part of the EMP. The proposal will be reviewed by PERS for acceptance. With respect to that, particular emphasis must be placed on:

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

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

The Contractor Reporting Arrangements

1. Contractor to PERS

Contractor will prepare his compliance reports in respect to EMP and Contractor's Project Implementation Plan as quarterly progress reports and will submit them to PERS in English and Serbian, both in hard copy and in electronic copy.

Contractor will provide quarterly reports to PERS which document environmental mitigation measures, together with the prescribed monitoring activities performed in the reporting period. Contractor will take due care of the quality of the environment, in accordance with Mitigation Plan and Monitoring Plan, which form an integral part of the EMP and will provide quarterly reports to PERS.

In the event of any accidents or environmental threats, there will be immediate reporting about these events. Contractor shall inform the project manager and local authorities immediately after the accident. If the project manager is not available, Contractor shall

inform PERS about the accident (phone number +381113040701 or by e-mail: office@putevi-srbije.rs).

Contractor shall monitor the quality of the environment in line with the Monitoring Plan which is an integral part of the EMP and will report to PERS on quarterly basis. These reports will include a list and details of all the activities performed on the location and the results of on-site investigation, in addition to the recommendations for future site activities and safeguard measures.

2. Project Supervisor Consultant to PERS

Conclusions of regular monitoring activities, including the activities stated in the Monitoring Plan, performed by the Contractor, will be included in the quarterly progress report.

In the case of an accident or environmental threat, these events must be reported immediately.

3. PERS – MoCTI, World Bank, EBRD and EIB

Annual Health and Safety and Environmental Report, including the indicators for monitoring and reporting on the implementation of the conditions established in the EMP will be prepared by PERS and submitted to IFIs for their consideration. IFIs will review the reports and verify their content in periodic site visits. PERS will provide annual reports to the MoCTI and IFIs regarding the status of the Contractor's implementation of mitigation measures, additional mitigation measures to be realized, cases of non-compliance, complaints received from the local residents, NGOs etc. and the manner in which they were addressed.

In the event of any lethal or major incidents on site, PERS will immediately report those to the Bank that finances the section of the road.

6. STAKEHOLDER ENGAGEMENT - INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

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

PERS office	Vlajkovicева St. 19 a, Belgrade, Contact person: Igor Radovic, 011 3206811
Local community centres	City of Nis, Municipality Merosina
Web site - PERS	www.putevi-srbije.rs

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

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

Before the start of the works, PERS will provide information using the following:

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

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

The Report on Public Consultation is presented in Appendix 4 to this EMP.

7. REFERENCES

- ❖ Environmental Assessment No 25, Environmental Management Plans, World Bank Environment Department, January 1999.
- ❖ Roads and the Environment: A Handbook, World Bank Environment Department.
- ❖ EIB, Environmental and Social Practices Handbook, Environmental and Social Office, version 2 24/02/2010.
- ❖ EBRD, Environmental and Social Policy 2008.
- ❖ EIB, Environmental and Social Principles and Standards (2008)
- ❖ EMP for the rehabilitation of roads, bridges and tunnels, as part of the World Bank project, Road Management and Traffic Safety, Republika Srpska, Roads Directorate, Banja Luka, 2001.
- ❖ Environmental Assessment Report and EMP for the Serbian Transport Rehabilitation Project, report ref: E866, project title: YF – Transport Rehabilitation Project – Br. P075207, document date 30/11/2003

APPENDICES

APPENDIX 1 MITIGATION PLAN

MITIGATION PLAN

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
Pre-construction	Main Design			
	Following the environmental protection procedure	Conditions from the Institute for Nature Protection of Serbia and Institute for Protection of Cultural Monuments Nis are obtained to avoid environmental risks	PERS And Main Design Designer- Consultant	PERS
	Site location and organisation will be approved by PERS and selected so as to:	<ul style="list-style-type: none"> - be outside of the river banks and river flood area of Juzna Morava - have no impact on the environment and the local community (noise, dust, vibrations etc.) - be outside the high vegetation area - minimise the size of the facilities to minimise the unnecessary removal of vegetation - have the sanitary waste water treated before the water is discharged into the surface water system, in accordance with the Law on Water (RS Official Gazette No 101/05) - properly drain the locations. Paved areas, including parking areas, workshops and fuel storages must be drained toward an oil-water separator - whenever possible, limit the area to be cleared and avoid topsoil degradation - the material removed will be collected, disposed and/ or re-used as needed - prevent soil erosion on site - contractor is responsible for implementing the measures for erosion protection - contractor shall limit the scope of the excavations to mitigate soil erosion 	PERS Contractor	PERS

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		<ul style="list-style-type: none"> - contractor shall implement soil conservation method in sensitive areas to prevent or minimize the storm water runoff, which causes material erosion - contractor is to avoid excavation and machine operations in damp site conditions. 		
	<p>Selection of the location for temporary settlement construction, in the vicinity of or within an existing settlement</p> <p>Influence on public health and sociological circumstances</p>	<ul style="list-style-type: none"> - minimum distance must be kept (buffer zone) between the site and the nearest populated area - influence of the local conditions must be accounted for (wind) to avoid or minimise harmful effects -contractor's EMP defines health and safety and environmental measures - independent water and electricity supply, in addition to a medical service station on site must be planned for. 	Contractor	PERS
	Stakeholder engagement	<p>Details of the proposed road route, access points and safety features will be disclosed at the location of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered will be recorded in the Main Design.</p>	PERS and Main Design Designer- Consultant	<p>Main Design Technical Control</p> <p>PERS</p>
Construction	Management plans			
	<p>Contractor shall prepare the implementation of the Plans described in the EMP, to ensure that the legislation and Creditor's requirements have been met:</p> <ul style="list-style-type: none"> - Site Organisation Plan - Sewerage and Wastewater Management Plan - Soil Management Plan - Dust Management Plan - A plan indicating the location of borrow-pits, and measures for recultivation of 			

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	borrow-pits and access roads after the project is completed - Waste and Wastewater Management Plan, in line with the Law on Waste Management (RS Official Gazette No 36/09) - Oil and Fuel Storage Management Plan - In-river Works Management Plan - Emergency Response Plan - Complaints Procedure - Safety and Hazard Assessment - Safety and Labour Management Plan			
Construction	Site Induction			
	All workers and visitors to the site shall be given a health and safety induction and instructed on the need to use PPE.			
Construction	Material Supply			
	asphalt plant: dust, fumes, health and safety of workers, ecosystem disturbance	- use the existing asphalt plants; - requirement for official approval or valid operating license	asphalt plant	asphalt plant
	quarry: dust, health and safety of workers, ecosystem disturbance	- use the existing quarries; - requirement for official approval or valid operating license	quarry	quarry
	sand and gravel borrow-pits: river bed disturbance, quality of water, ecosystem disturbance	- use the existing borrow pits or buy material from licensed separation facilities; - requirement for official approval or valid operating license	contractor or gravel and sand separation facility	contractor or gravel and sand separation facility
Construction	Material Transport			

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	asphalt: dust, fumes	- all trucks need to be covered - contractor's machinery to be carefully selected	truck operator	truck operator
	stone: dust	wet truck load	truck operator	truck operator
	sand and gravel: dust	wet truck load	truck operator	truck operator
	management of traffic noise, exhaust fumes and road congestion	- haul material at off-peak traffic hours (9-14h) - use alternative roads to avoid main roads - proper road signs and markings of the site, to minimise chances of a wrong turn	transport manager truck operator	transport manager truck operator
	Possibility of encountering an archaeological site	if an archaeological site is encountered, contractor shall immediately suspend the works and inform IPCM and PERS.	contractor	contractor's supervision
Construction	Construction Site			
	negative impact of noise on the workers and local community	- limit the activities to daylight working hours - use equipment with noise mufflers, licensed and approved in accordance with the EU standards - use noise barriers for the works that produce noise for more than one day on the same location. - locate noise-making equipment as far away as possible from residential buildings and other noise- sensitive receptors.	contractor	contractor
	dust	- spray the problematic areas on site with water - cover the material stored and limit vehicle speed - implement the Dust Management Plan: measures for	contractor	contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		avoiding dust emission, including hoarding, spraying the problematic areas, accesses, material and stockpiles during the loading and unloading activities, covering the trucks that carry dusty material, washing the trucks etc.		
	vibrations	<ul style="list-style-type: none"> - limit activities to daylight working hours - if there is material damage to the local houses, buildings and infrastructure (access roads included) caused by the works, the damage will be compensated for and will have to be rectified - locate the equipment for earth works as far away as possible from vibration-sensitive receptors 	contractor	contractor
	traffic disruption during construction activities	<ul style="list-style-type: none"> - Traffic Management Plan with appropriate measures for traffic diversions that can be easily noted and followed, including traffic police assistance - Traffic Management Plan which will define a speed limit for the construction vehicles and organise traffic in such a way that populated areas are avoided as much as possible - during the works, maximum use of the existing road network. Avoid the construction of new temporary roads, which would increase the habitat fragmentation - inform the local community about the works planned 	contractor	contractor
	reduced access to roadside activities	provide an alternative access to roadside activities at all times	contractor	contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	safety of vehicles when / where there are no construction activities	lighting and well-defined safety signs and protection measures	contractor	contractor
	soil and water pollution from improper material storage, management and use	<ul style="list-style-type: none"> - organise and cover material storage areas - isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers - isolate the areas for washing the concrete or asphalt trucks and other equipment from the watercourse by choosing areas for washing which are not freely drained directly or indirectly into the watercourse - organize the site so as to minimize the risk of generating sediments and accumulating waste water, which could cause pollution of the surrounding soil and water - Soil Management Plan to provide controlled removal, storage and re-use of topsoil - use local controlled measures to prevent sediment flowing into surface water and drainage channels. Some of the measures include physical obstacles such as fences, mulch barriers, geotextile, rock groynes, sediment basins. - to prevent sediment flowing into surface water, slope of the soil and protection from wind erosion must also be considered, by installing fences, covers etc. - any deposits of excess soil, stone etc. may only be temporary, until the works have been completed. After that, excess soil, stone and other waste material must be removed and complete rehabilitation of all areas degraded by the works must be done. 	contractor	contractor
	soil and water pollution from improper waste material disposal	- dispose waste material at a location protected from washing out, on a marked location, if not on site, then on an authorised landfill (It is very important recommendation that the authorized landfill is sanitary	contractor	contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		<p>and in accordance with the European standards and regulations of the Republic of Serbia)</p> <ul style="list-style-type: none"> - dispose waste in accordance with best international practice (IFC, EHS – general guidelines). - apply additional measures for storing hazardous waste (secondary containment, limiting the access, providing PPE etc.) to prevent negative effects on the workers, local community or environment - nominate a persoproposal responsible for waste collection and storage (hazardous and non-hazardous) 		
	potential contamination of soil and water from improper maintenance and fuelling of equipment	apply the best engineering practice in handling and safe storage of lubricants, fuel and solvents, ensure proper loading of fuel and equipment maintenance, collect all waste and dispose it on authorised recycling locations	contractor	contractor
	soil and water pollution from improper waste material disposal	<ul style="list-style-type: none"> - transport the waste in marked vehicles designed for waste transport, to minimise the risk of releasing hazardous and non-hazardous substances - train the drivers in handling and disposal of the load they transport and transport documents describing the nature of the load (waste) and its degree of hazard 	contractor	contractor
	safety of workers	<ul style="list-style-type: none"> - provide workers with safety instructions and PPE - provide a safe alternative traffic flow 	contractor	contractor
	areas temporarily occupied	<ul style="list-style-type: none"> - undertake re-vegetation with native species and monitor the effects (avoid invasive species those that cause allergic reactions) -where initial plantings were not successful, carry out re-planting 	contractor	contractor
Operation	Maintenance			
	negative impact of noise	- limit activities to daylight working hours, or as agreed	maintenance contractor	maintenance contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	on local residents and workers	with the authorities - use the equipment with noise mufflers installed		
	potential air, water and soil pollution: dust, exhaust fumes, spilt fuel, oil and lubricants	<ul style="list-style-type: none"> - apply the best engineering practice in handling and safe storage of lubricants, fuel and oil - ensure proper loading of fuel and maintenance of equipment - collect and dispose all waste in accordance with the Law on Waste Disposal - properly organise and cover the areas for material storage - isolate concrete and asphalt works from the watercourse by using sealed formwork - isolate the area for washing trucks for the transport of concrete and asphalt and all other equipment from the watercourse, by choosing the area for washing where the water is not freely drained directly or indirectly into the rivers - dispose the waste material to suitable locations protected from washing out 	maintenance contractor	maintenance contractor
	vibrations	limit activities to daylight working hours, or as agreed with the authorities	maintenance contractor	maintenance contractor
	safety of workers	<ul style="list-style-type: none"> - provide workers with safety instructions and PPE - organise safe traffic bypass 	maintenance contractor	maintenance contractor
	increased vehicle speed	install speed limit signs	maintenance contractor	maintenance contractor
	erosion, rockfall, hazardous situation	install suitable warning signs (rockfall, landslide, wet or slippery conditions, dangerous curve, animal crossing, slow traffic zone), reflective markings indicating steep	maintenance contractor	maintenance contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		slopes or convex mirrors in curves where there is a lack of visibility, warning signs on locations considered appropriate in line with good engineering practice or as agreed with the authorities		

APPENDIX 2 MONITORING PLAN

MONITORING PLAN

Phase	Parameter to be monitored	Location where the parameter is monitored	How the parameter is monitored	When the parameter is monitored (frequency or continuous)	Why the parameter is monitored	Institutional responsibility
						Implementation
Construction	Material supply					
<i>asphalt plant</i>	possession of an official approval or valid (operating) license	asphalt plant	inspection / supervision engineer	prior to the start of the works	ensure the compliance of the plant with the health and safety and environmental requirements	plant manager
<i>quarry</i>	possession of an official approval or valid (operating) license	quarry	inspection / supervision engineer	prior to the start of the works	ensure the compliance of the quarry with the health and safety and environmental requirements	quarry manager
<i>sand and gravel borrow-pit</i>	possession of an official approval or valid (operating) license	sand and gravel borrow-pit or separation facility	inspection / supervision engineer	prior to the start of the works	ensure the compliance of the borrow-pit with the health and safety and environmental requirements	borrow-pit or separation facility manager
Construction	Material transport					
<i>asphalt</i>	truck load covered	site	supervision	unannounced inspections during the works, at least once a week	ensure the compliance with the health and safety and environmental requirements	Contractor's supervision

Phase	Parameter to be monitored	Location where the parameter is monitored	How the parameter is monitored	When the parameter is monitored (frequency or continuous)	Why the parameter is monitored	Institutional responsibility
						Implementation
<i>stone</i>	truckload covered or wetted	site	supervision	unannounced inspections during the works, at least once a week	ensure the compliance with the health and safety and environmental requirements	Contractor's supervision
<i>sand and gravel</i>	truckload covered or wetted	site	supervision	unannounced inspections during the works, at least once a week	ensure the compliance with the health and safety and environmental requirements	Contractor's supervision
<i>traffic management</i>	hours and routes selected	site	supervision	unannounced inspections during the works, at least once a week	ensure the compliance with the health and safety and environmental requirements and minimal disruptions to traffic	Contractor's supervision
Construction	Construction site					
<i>negative effects of noise on the workers and local residents</i>	noise levels	site; nearest homes in the local settlement	sound meter with suitable software	-once at the beginning of the project and later quarterly -after receiving a complaint -if the monitoring results are not satisfactory, monitoring to be done on monthly basis	ensure the compliance with the health and safety and environmental requirements and minimal disruptions to traffic	contractor (monitoring)

Phase	Parameter to be monitored	Location where the parameter is monitored	How the parameter is monitored	When the parameter is monitored (frequency or continuous)	Why the parameter is monitored	Institutional responsibility
						Implementation
<i>dust</i>	air pollution (suspended solids)	on and near the site	inspection and visual observation	unannounced inspections during material delivery and construction works	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	Contractor's supervision (monitoring)
<i>vibrations</i>	limited time of activities	site	supervision	unannounced inspections during construction works and after a complaint is received	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	Contractor's supervision
<i>disruptions to traffic during construction works</i>	existence of a Traffic Management Plan and traffic pattern	on and near the site	inspection and visual observation	prior to the start of the works; once a week in peak and non-peak hours	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	Contractor's supervision
<i>reduced access to roadside activities</i>	alternative access provided	site	supervision	random checks at least once a week during the construction works	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	Contractor's supervision

Phase	Parameter to be monitored	Location where the parameter is monitored	How the parameter is monitored	When the parameter is monitored (frequency or continuous)	Why the parameter is monitored	Institutional responsibility
						Implementation
<i>safety of vehicles where there are no construction activities</i>	visibility and suitability	on and near the site	observation	random checks at least once a week in the evening	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	Contractor's supervision
<i>water and soil pollution resulting from improper material storage, management and use</i>	soil and water quality (suspended solids, oils, ph values, conductivity)	the Juzna Morava river	unannounced sampling, analysis in a certified laboratory possessing the required equipment	at least three times for the entire Project duration, monitoring to be done before the construction (or at a reference point upstream of the site) during and after the rehabilitation works	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	Contractor (monitoring)
<i>safety of workers</i>	PPE; bypass traffic organisation	site	inspection	unannounced inspections during the works	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	supervision contractor
Operation	Maintenance					
<i>negative effect of noise on the workers and local residents</i>	noise levels	site; nearest homes	sound meter with suitable software	unannounced inspections during the maintenance activities and after receiving a complaint	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	PERS

Phase	Parameter to be monitored	Location where the parameter is monitored	How the parameter is monitored	When the parameter is monitored (frequency or continuous)	Why the parameter is monitored	Institutional responsibility
						Implementation
<i>vibrations</i>	limited time of activities	site	supervision	unannounced inspections during the maintenance activities and after receiving a complaint	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	PERS
<i>safety of workers</i>	PPE; bypass traffic organisation	site	inspection	unannounced inspections during the maintenance activities and after receiving a complaint	ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic	PERS
Operation	Road safety					
<i>increased vehicle speed</i>	condition of traffic signs; vehicle speed	road section included in the design	visual observation; radar speed detectors	during the maintenance activities; unannounced	ensure a safe and economical traffic flow	maintenance contractor; traffic police
<i>erosion, rockfall and hazardous situations</i>	condition of traffic signs	road section included in the design	visual observation	during the maintenance activities	ensure a safe and economical traffic flow	maintenance contractor, monitoring

EBRD Template - additional data required that should be incorporated into monitoring plans:

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

Were any of the violations stated above the responsibility of contractors?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details, including how the Company is ensuring that corrective actions are implemented by the Contractor?
Have any operations been reduced, temporarily suspended or closed down due to environmental, health, safety or labour reasons?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe:
<p>Please describe any environment or social programs, initiatives or sub-projects undertaken during the reporting period to improve the company's environmental or social performance and/or management systems:</p> <p>Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Action Plan, or to any other initiative:</p>		

2. Status of the Environmental and Social Action Plan

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

3. Environmental Monitoring Data¹

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]				
Air Emissions				
SO ₂				
NO _x				
Particulates				
CO ₂				
CH ₄				
N ₂ O				

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, 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 agreed with EBRD for this project (typically local, EU and/or World Bank Group)

⁵ In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

Please provide the name and contact details for your environmental manager:				
Parameter ²	Value ³	Unit	Compliance Status ⁴	Comments ⁵
HFCs				
PFCs				
SF ₆				
[Other]				
Other Parameters				
Noise				
[Other]				
Solid Waste				
Please provide details of the types and amounts of solid wastes generated by the project. Indicate 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				

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
Lignite			
Grid Electricity			
Heat Purchased			
Feedstocks and raw materials consumed			
Name 1			
Name 2			
Product output			
Product 1			
Product 2			

5. Human Resources Management

Please provide the name and contact details for your Human Resources manager:

	Total	Recruited in this reporting period	Dismissed in this reporting period
Number of direct employees:			
Number of contracted workers:			
Were there any collective redundancies during the reporting period? Yes <input type="checkbox"/> No <input type="checkbox"/>		If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, how they were selected, consultation undertaken, and measures to mitigate the effects of redundancy:	
Are there any planned redundancies to the workforce in the next year? Yes <input type="checkbox"/> No <input type="checkbox"/>		If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation process:	
Were there any changes in trade union representation at Company facilities during the reporting period? Yes <input type="checkbox"/> No <input type="checkbox"/>		If yes, please provide details, and summarise engagement with trade unions during reporting period:	

Were there any other worker representatives (e.g. in the absence of a trade union)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details and summarise engagement with them during reporting period:
Were there any changes in the status of Collective Agreements?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details:
Have employees raised any grievances with the project during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many, split by gender, summarise the issues raised in grievances by male and female staff and explain how the Company has addressed them:
Have employees raised any complaints about harassment or bullying during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many, split by gender, summarise the issues raised by male and female staff 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 <input type="checkbox"/> No <input type="checkbox"/>	If yes, please summarise nature of, and reasons for, disputes and explain how they were resolved
Have there been any court cases related to labour issues during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please summarise the issues contested and outcome:
Have there been any changes to the following policies or terms and conditions during the reporting period in any of the following areas: <ul style="list-style-type: none"> • Union recognition • Collective Agreement • Non-discrimination and equal opportunity • Equal pay for equal work • Gender Equality • Bullying and harassment, including sexual harassment • Employment of young persons under age 18 • Wages (wage level, normal and overtime) • Overtime 	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please give details, including of any new initiatives:

<ul style="list-style-type: none"> • Working hours • Flexible working / work-life balance • Grievance mechanism for workers • Health & safety 		
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6. Occupational Health and Safety Data

Please provide the name and contact details for your Health and Safety manager:

	Direct employees	Contracted workers		Direct employees	Contracted workers
Number of man-hours worked this reporting period:			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 EBRD, including total compensation paid due to occupational injury or illness (amount and currency):

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.

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. Stakeholder Engagement

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

Please provide information on the implementation of the stakeholder engagement plan agreed with EBRD and 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 report period relating to environmental, social or safety issues
- coverage in media,
- and interaction with any environmental or other community groups.

Please describe any changes to the Stakeholder Engagement Plan agreed with EBRD:

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

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

Existing Land Acquisitions

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

Have all the affected persons been fully compensated for their physical displacement and, if applicable, any economic losses resulting from the project?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If no, specify how many compensation payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made:
Has the land acquisition had any additional, unforeseen impacts on affected persons' standard of living or access to livelihoods that were not previously covered in the RAP?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, quantify these impacts and specify what measures have been undertaken to minimize and mitigate these impacts. If no, specify how potential impacts on livelihoods have been monitored.
Have any vulnerable groups been identified?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, list the groups that were identified and describe any additional measures undertaken in order to mitigate impacts specific to these groups.
If applicable, have all transit allowances been paid?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If no, specify how many payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made.
Has legal support been provided to all the affected persons?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, specify how many persons effectively made use of the legal support.

Have all outstanding land and/or resource claims been settled?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable <input type="checkbox"/>	If no, specify how many claims are still outstanding and state what the expected timing is for settling them.
Have there been any new land acquisition-related complaints or grievances?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many and summarize their content.
Has the company regularly reported to the affected communities on progress made in implementing the RAP?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please state how many meetings were held and how many participants attended.
New Land Acquisitions If the company acquired any new land for the project during the reporting year, please provide documents to show closure of land acquisition transactions. Please attach new/revised RAP covering the new land acquisition and describe mitigation measures, compensation, agreements reached, etc., and provide in tabular form a list of affected people and status of compensation.		
Have any persons been physically displaced?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, how many?
Have any persons been economically displaced?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, how many?
Was it a government assisted resettlement?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

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 3 LEGISLATION

RELEVANT SERBIAN ENVIRONMENTAL LEGISLATION:

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

- ❖ Law on planning and construction (RS Official Gazette No 72/2009, 81/2009, 64/2010, 24/2011, 121/2012, 42/2013, 50/2013, 98/2013, 132/2014, 145/2014);
- ❖ Law on nature protection (RS Official Gazette No 36/09, 88/10, 91/10, 14/16);
- ❖ Law on environmental protection (RS Official Gazette No 135/04, 36/09, 72/09, 43/11, 14/16);
- ❖ Law on EIA (RS Official Gazette No 135/2004, 36/2009,);
- ❖ Law on Strategic EIA (RS Official Gazette No 135/2004, 88/10);
- ❖ Law on waste management (RS Official Gazette No 36/09, 88/10, 14/16);
- ❖ Law on noise protection (RS Official Gazette No 36/09, 88/10);
- ❖ Law on water (RS Official Gazette No 30/10, 93/12, 101/16);
- ❖ Law on forests (RS Official Gazette No 30/10, 93/12, 89/15);
- ❖ Law on air protection (RS Official Gazette No 36/09, 10/13);
- ❖ Law on safety and health at work (RS Official Gazette No 101/05, 91/15, 113/17).

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

- ❖ Decree on establishing the List of Projects for which the Impact Assessment is mandatory and the List of projects for which the EIA can be requested (RS Official Gazette No 114/08);
- ❖ 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 (RS Official Gazette No 69/05);
- ❖ Rulebook on the contents of the EIA Study (RS Official Gazette No 69/05);
- ❖ Rulebook on the procedure of public inspection, presentation and public consultation about the EIA Study (RS Official Gazette No 69/05);
- ❖ Rulebook on the work of the Technical Committee for the EIA Study (RS Official Gazette No 69/05);
- ❖ Regulations on permitted noise level in the environment (RS Official Gazette No 72/10);
- ❖ Decree on establishing class of water bodies (RS Official Gazette No 5/68);
- ❖ Decree on limit values of pollutants in surface and groundwater and sediment and deadlines for their reach ("Official Gazette of RS", No. 50/12)
- ❖ Regulations on dangers pollutants in waters (RS Official Gazette No 31/82).

Other relevant Serbian legislation

- ❖ Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area (RS Official Gazette No 38/09);
- ❖ Law on Public Roads ("Official Gazette of the Republic of Serbia", Nos. 101/05, 123/07, 101/11, 93/12, 104/13);
- ❖ Law on Roads ("Official Gazette of the Republic of Serbia", No. 41/18).

APPENDIX 4 STAKEHOLDER ENGAGEMENT

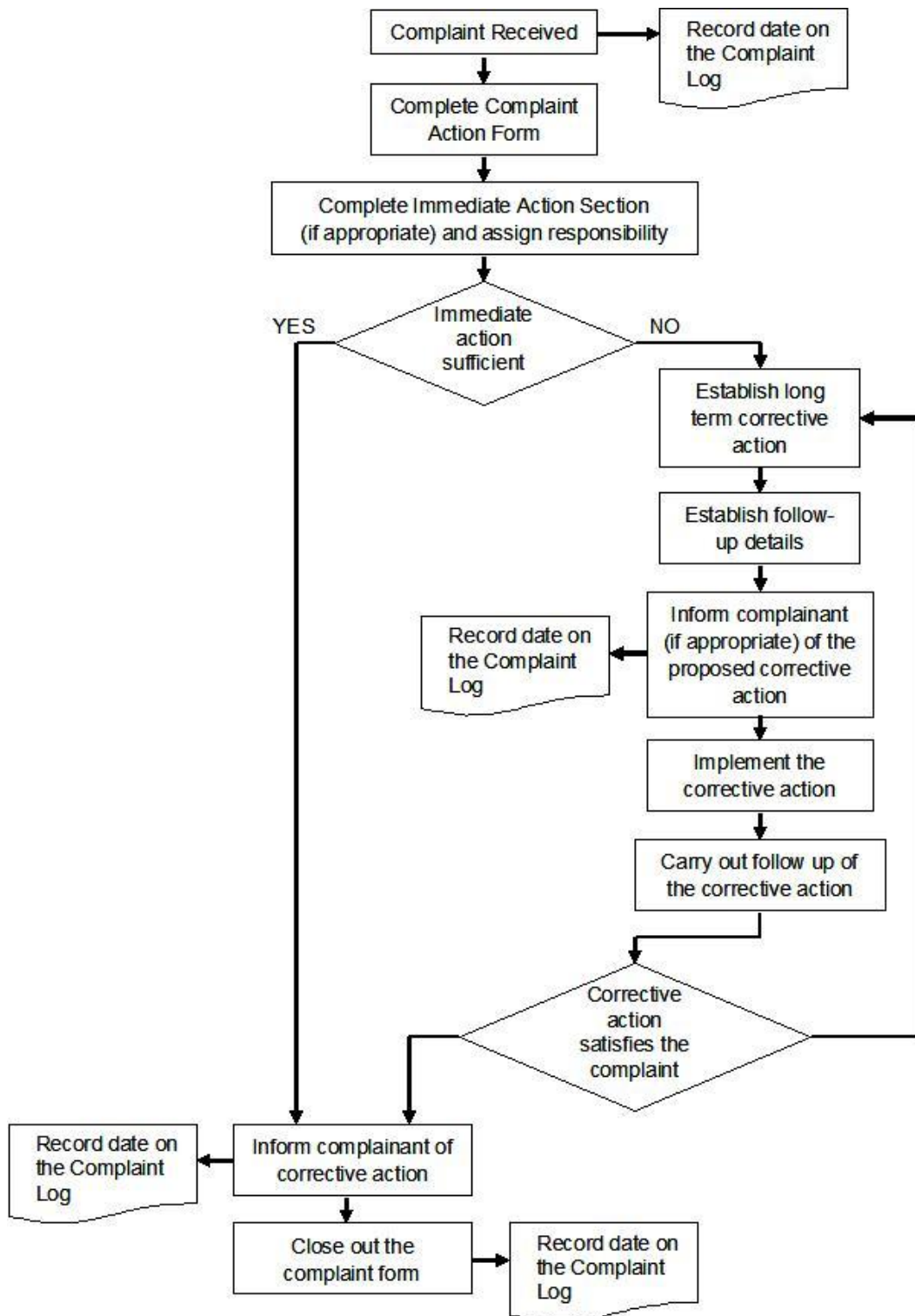
Identification of stakeholders

The stakeholders are people and organisations which may affect, be affected by, or believe to have been affected by a decision or activity. The stakeholders on this Project may be classified as follows:

1. Potentially affected parties:
 - ❖ PERS employees and Contractors;
 - ❖ Representatives of companies directly bordering the Project;
 - ❖ Residents of areas in the Project Influence zone;
 - ❖ Local or regional authorities within the legal framework, such as: local land-owners and tenants and potentially affected industry and businesses.
2. Other interested parties:
 - ❖ Public;
 - ❖ Other companies operating in the National Network;
 - ❖ NGOs.

As the Project develops, more stakeholders may appear. Once it is identified, each stakeholder will be characterised as regards its interests, problems and requests and included in the list accordingly.

Grievance mechanism and form



Grievances are to be resolved within 15 working days.

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

REPORT ON PUBLIC CONSULTATION

The report will be subsequently inserted after a public presentation and consultation.

APPENDIX 5 CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS

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

ЈП
ЈАВНО ПРЕДУЗЕЋЕ ПУТЕВИ СРБИЈЕ
Број 953-18430/17-1
Датум 27-09-2017
БЕОГРАД, Београдски пут бр. 1, Андрићев мост бр. 200

Завод за заштиту природе Србије из Београда, Ул. др Ивана Рибара бр. 91, на основу члана 9. Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010 – исправка и 14/2016) и члана 136. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), поступајући по захтеву Јавног предузeћа „Путеви Србије“, Сектор за инвестиције, 11050 Београд 22, Булевар краља Александра 282, за издавање услова заштите природе за израду техничке документације Пројекта Појачаног одржавања деонице државног пута IА реда бр. 1 (аутопут Е75), деоница петља Трупале – петља Мeroшина, дана 26.09 2017. године под 03 бр. 020-2123/3, доноси

РЕШЕЊЕ

1. Предметна деоница/траса пута не пролази кроз заштићено подручје за које је спроведен или покренут поступак заштите, али прелази преко реке Јужне Мораве која са својим обалским појасом представља еколошки коридор од међународног значаја. Сходно томе, издају се услови заштите природе:
 - 1) Пројектом предвидети таква решења и мере који ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода, посебно реке Јужне Мораве међународно значајаног еколошког коридора, као и реке Нишаве и осталих водотока (Крајковачка река...) како за време изградње, тако и у току функционисања аутопута.
 - 2) Саставни део Пројеката треба да буде и део који се односи на организацију градилишта, као и пројекат санације и уређења терена, односно предвидети да се све површине које су на било који начин деградирале грађевинским и другим радовима што пре санирају, након завршетка радова.
 - 3) Није дозвољено одлагање шута и било каквог другог отпада настао у току извођења радова, односно дефинисати забрану одлагања отпада, посебно грађевинског у приобаљу, као и самом кориту река Мораве, Нишаве, Крајковачке реке и других мањих водотока, као и уз мост и на пољопривредном земљишту, осим на локацијама које ће се пројектом организације градилишта утврдити као привремене депоније.
 - 4) При извођењу радова строго се придржавати коридора пута, како манипулација возилима и машинама не би оставиле последице на шири простор, посебно у делу око Мораве и осталих водотокова. Такође, користити постојећу путну мрежу, у циљу спречавања фрагментације простора и постојећих станишта.
 - 5) Током извођења радова предузети све мере предострожности како би се појединачни представници денрофлоре уз трасу аутопута максимално заштитили и сачували од могућег оштећења, на било који начин.
 - 6) У циљу заштите од загађења, деоница пута мора имати прописане таложнике и сепараторе масти и уља за воде које настају спирањем са коловоза, посебно на траси пута у делу Мораве и Нишаве, као и Крајковачке реке чији је ток у близини, дуж једног дела трасе.
 - 7) У току извођења радова неопходно је предвидети да се максимално очува обалски појас река, односно забрани уништавање приобалне вегетације (у делу

око мостова Јужне Мораве и Нишаве), као и Крајковачке реке дуж чијег тока је у близини део трасе пута.

- 8) Уколико је неопходно уређење у зони прелаза пута (моста) преко водотока (Мораве и Нишаве) предвидети употребу камена и других природних материјала и у највећој могућој мери избећи бетонирање обала и корита водотока (спровести тзв. природно уређење водотока) при чему је неопходно максимално очување самог корита, али и обала са постојећом вегетацијом.
 - 9) Такође, предвидети уређење коридора око и испод моста на начин којим ће се обезбедити миграција врста дуж обала Мораве и Нишаве.
 - 10) Током извођења радова (подизања асфалта,..) у делу насрам објеката/насеља, планирати орошавање како би се спречило подизање прашине и негативан утицај на људе.
 - 11) Уколико током извођења предметних радова дође до хаваријског изливања горива и уља из возила и радних машина, или других опасних и штетних материја, обавезна је санације терена. У случају изливања штетних материја у водотоке, потребно је планирати одговарајуће мере санације и заштите (анализу воде,..).
 - 12) Предвидети коловозни застор/материјал који може, са аспекта заштите, обезбедити смањење нивоа буке и вибрација и омогућити ефикасно дренажање воде са површине коловоза, у циљу заштите од буке, посебно у делу насеља.
 - 13) Током извођења радова дуж целе трасе одржавати максимални ниво комуналне хигијене.
 - 14) По изведеним радовима неопходно је што пре уклонити механизацију и др., а уколико је дошло до нарушавања простора дуж предметне трасе треба га санирати (култивисати терен, односно успоставити биљни покривач уз одговарајуће врсте које су биолошки постојане у датим климатским условима.
2. Ово Решење не ослобађа подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима.
 3. У случају измене Пројекта, потребно је Заводу за заштиту природе Србије поднети нов захтев за издавање услова заштите природе.
 4. Уколико подносилац захтева у року од две године од дана достављања овог Решења не отпочне радове и активности за које је ово Решење о условима заштите природе издато, дужан је да од Завода прибави ново решење о условима заштите природе.
 5. Такса за издавање овог Решења у износу од 30.000,00 динара је одређена у складу са чланом 2. став 5. тачка 1. Правилника о висини и начину обрачуна и наплате таксе за издавање акта о условима заштите („Службени гласник РС“, бр. 73/2011, 106/2013). Подносилац захтева је дужан да наведену таксу уплати у корист рачуна Завода у року од 5 дана од дана достављања предрачуна.

Образложење

Завод за заштиту природе Србије примио је дана 04.09.2017. године захтев бр. 020-2123/1 Јавног предузећа „Путеви Србије“, Сектор за инвестиције, 11050 Београд 22, Булевар краља Александра 282, за издавање услова заштите природе за израду техничке документације Пројекта Појачаног одржавања деонице државног пута 1А реда бр. 1 (аутопут Е75), деоница петља Трупале – петља Меровина.

На основу достављеног захтева и пратеће документације подносиоца захтева, утврђено је да је планирана израда Пројекта Појачаног одржавања деонице државног пута IА реда бр. 1 (аутопут Е75), деоница петља Трупале – петља Меровина. Предметни Пројекат је саставни део Пројекта рехабилитације путева и унапређења безбедности саобраћаја на мрежи државних путева, који је подршка међународних финансијских институција Националном програму рехабилитације државних путева Републике Србије. Почетак деонице је петља Трупале, а крај деонице је петља Меровина на Е-75. Врста радова која се планира обухвата радове ојачања постојеће коловозне конструкције (на појединим местима до дубине од 50-60 cm) у постојећим габаритима коловозне конструкције са постојећим и санираним системом одводњавања.

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 том се имало у виду да предметна деоница, односно траса пута не пролази кроз заштићено подручје за које је спроведен или покренут поступак заштите, на основу Закона о заштити природе, али прелази преко реке Јужне Мораве која са својим обалским појасом представља еколошки коридор од међународног значаја, према Уредби о еколошкој мрежи („Службени гласник РС“, бр. 102/2010).

Законски основ за доношење решења је: Закон о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010-исправка и 14/2016), Уредба о еколошкој мрежи („Службени гласник РС“, бр. 102/2010).

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

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

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

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

ДИРЕКТОР

Александар Драгишић

Достављено:
- Подносиоцу захтева
- Архива x 2

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

ДЖАВНО ПРЕДУЗЕЋЕ ПУТЕВИ СРБИЈЕ
Број: 953-13042/18-1
29-06-2018
Београд, Булевар Краља Александра бр. 282

Завод за заштиту природе Србије, Београд, Ул. др Ивана Рибара бр. 91, на основу члана 144. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), а поступајући по предлогу број: 953-13042 од 08.06.2018. године ЈП „Путеви Србије“ из Београда, Бул. Краља Александра 282, за исправљање грешке у Решењу 03 бр. 020-2123/3 од 26.09.2017. године, дана 29.06. 2018. године, под 03 бр. 020-1550/2 доноси

РЕШЕЊЕ

1. У Решењу 03 бр. 020-2123/3 од 26.09.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр. I (аутопут E75), деоница петља Трупале – петља Меровина, исправља се грешка, и то:

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

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

2. У свему осталом предметно Решење остаје непромењено.

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

Образложење

Завод за заштиту природе Србије примио је дана 11.06.2018. године захтев заведен под бр. 020-1550/1 ЈП „Путеви Србије“ из Београда за исправљање грешке у Решењу Завода 03 бр. 020-2123/3 од 26.09.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр. I (аутопут E75), деоница петља Трупале – петља Меровина.

У току писања наведеног решења у тачки 1. став 6) диспозитива направљена је очигледна грешка прописивањем мера које се односе на обавезно прикупљање воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима и њихово пречишћавање изградњом таложника и сепаратора масти и уља, а пре испуштања у реципијент или канализацију.

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

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

ДИРЕКТОР

Александар Драгишић



Достављено:
- Подносиоцу захтева
- Архива х 2



AA

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: 1080/2

Датум: 20.09.2017. год.

Датум
09-18-2017
Београд, Булевар краља Александра бр. 282

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

РЕШЕЊЕ

О утврђивању услова за предузимање мера техничке заштите

I Мере техничке заштите: за израду техничке документације пројекта Појачаног одржавања деонице државног пута IA реда бр. 1 (аутопут Е75), деоница петља Трупале – летља Меровина, 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 неевидентни 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, публикавање 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.

Образложење

Јавно предузеће "Путеви Србије", са седиштем у Београду у Булевару краља Александра 282, поднело је захтев 953-18129 од 01.09.2017. године Заводу за заштиту споменика културе Ниш који је заведен под бр. 1080/1 од 04.09.2017. 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

Милена Васић Петровић

Доставити:

- Подносиоцу захтева
- Документацији Завода

APPENDIX 6 FINAL ENVIRONMENTAL APPROVAL



Република Србија
МИНИСТАРСТВО ЗАШТИТЕ
ЖИВОТНЕ СРЕДИНЕ
Број: 011-00-00189/2018-03
Датум: 12.03.2018.
Београд

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

Предмет: Допис у вези са захтевом

Министарству заштите животне средине обратили сте се Захтевом за давање мишљења о потреби израде студије о процени утицаја на животну средину пројекта појачаног одржавања и отклањања оштећења на државном путу IА1, ЛОТ 1; Ниш (Трупале) – Ниш 3 (Багушинац), L=18,655 км – две коловозне траке), заведен под бројем 011-00-00189/2018-03 од 06.03.2018.

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

Пројекат подразумева грађевинско-путарске радове у оквиру трасе већ постојећег државног пута који представља полужну аутопутску саобраћајну везу кроз северни и јужни део Србије и део је коридора 10 и за интервенцију су предвиђене две коловозне траке, дужине 18,655 км. Радовима је предвиђено ојачање постојеће коловозне конструкције, санирање систрма одводњавања и пројектовање свих елемената који продужавају трајност радова.

Уз Захтев је приложена и додатна документација:

- Правилник о ургентном одржавању државног пута („Сл. гласник РС“ 74/2014 и 87/2014), којим су дефинисане врсте радова, технички услови и начин извођења радова;
- Правилник о периодичном одржавању државног пута (на основу чл. 61 ст. 1 Закона о путевима, „Сл. гласник РС“ 101/05, 123/07, 101/11, 93/12 и 104/13)
- Кратак опис пројекта уз графички прилог;

- Решење бр. 020-2123/3 од 26.09.2017. које је издао Завод за заштиту природе Србије;
- Решење бр. 1080/2 од 20.09.2017. које је издао Завод за заштиту споменика културе Ниш;
- Пуномоћје бр. 953-3673 од 12.02.2018. за групу пројекатана: Projekt Biro Utiber doo, Utiber LTD, Pampro team doo, DUODEC doo, VIA Inženjering doo, које је издало ЈП ПУТЕВИ СРБИЈЕ;

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

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


Помоћник министра
 По решењу о отклањању
 бр. 021-01-5/18-2017-09 од 11.12.2017.
Александар Весин
 ГРАД

Доставити:

- наслову
- Project biro utiber doo, ✓
21 000 Нови Сад, Војводе Мишића 2
- архиви