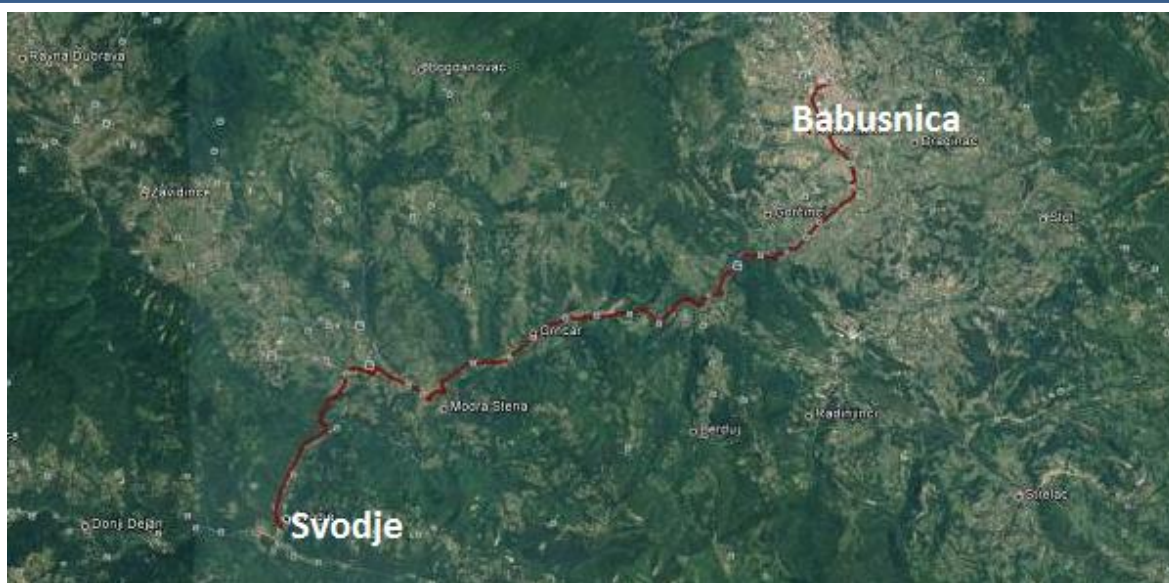


## ENVIRONMENTAL MANAGEMENT PLAN - DRAFT 2 -

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

**PREPARATION OF MAIN DESIGN FOR HEAVY MAINTENANCE (ROAD REHABILITATION - UPGRADING) OF THE STATE ROAD IB 39, SECTION: BABUSNICA – SVODJE, L = 19.519 km**

**ENVIRONMENT CATEGORY B**



**March 2019**



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## **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 state road IB 39 section: Babusnica – Svodje.

Environmental Management Plan (EMP) relates to the heavy maintenance of the state road IB 39 section: Babusnica – Svodje, L = 19.519 km.

The subject road section belongs to Pirotski and Jablanicki Administrative District located in southeastern part of Republic of Serbia. The subject road section belongs to the state road IB 39 (old designation M-9) which represents the cross traffic link through southeastern part of Serbia. Road section starts 1838 m after the node 3904 Babusnica (around km 25+851, where is the board indicating the settlement of Babusnica) and ends at the node 3906 Svodje. Road section from the beginning until the exit from Babusnica is reconstructed, sidewalks and drainage are built. The total length of the road which is the subject of main design is 19.519 km.

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

International financing institutions (IFIs) 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” (PERS).

The design will be made in accordance with Serbian legislation and the conventions and safeguard guidelines issued by IFIs. 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 Pirotski and Jablanicki Administrative District located in southeastern part of Republic of Serbia. The subject road section belongs to the state road IB 39 (old designation M-9), and represents cross link through southeastern part of Serbia. Due to the traffic - geographic nature, the level of development and position in the road network, the subject road is of the utmost importance for the Republic of Serbia. That is why it is necessary to enhance road safety, operational value and durability of the subject road section.

The beginning of the subject section is located on 1838 m after the node 3904 Babusnica, at the chainage km 25+866, namely, from the table showing the entry into Babusnica settlement. The end of the subject section is in the node 3906 Svodje at the chainage km 45+385, namely, the end of the subject section is reconstruction of the intersection on which the node is located at the chainage km 45+425.



*Figure 1. The beginning of the road section – km 25+866*



*Figure 2. The end of the road section – km 45+385 (node 3906 – Svodje)*

## **Politics, legal and administrative framework**

The Ministry of Environmental Protection (MoEP), 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. 020-2195/3 dated October 9<sup>th</sup> 2017 and modification of condition 03 no. 020-1547/2 dated June 28<sup>th</sup> 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. 1105/2 dated September 14<sup>th</sup> 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. 011-00-00196/2018-03 dated March 12<sup>th</sup> 2018), stating that the Client is not obliged to conduct EIA procedure for this project.** (Appendix 6)

The work envisages strengthening of the existing pavement structure in the existing dimensions and existing sanitary drainage system, with a special definition of the operating regime in the water supply source zone of the Ljuberadja – Nis.

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 or in the ecological network area. The Client is requested to provide, through design proposal the functionality of the conditions for natural protection..

In the Conditions of the IPCMN is written that along subject road section there was no systematic prospecting of immovable cultural property. The Client is obliged to provide permanent archaeological supervision during the execution of earthworks. In the case that, during the excavation work, an unrecorded archaeological or historical site is

discovered, The Client is obliged to immediately stop the works and inform IPCMN without delay, to take measures to ensure that the finding area is not destroyed and not damaged in the place and in the position in which it is discovered, and to 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 is prepared in line with laws of the Republic of Serbia, but also in line with the EU standards.

Creditors require that the following is 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 RRSP 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 Pirotski Administrative District located in southeastern part of Republic of Serbia. Road section Babusnica – Svodje belongs to state road IB 39 (old road designation M-9) (“Official Gazette of RS” No. 93/2015).

The subject road sections passes through the municipalities: Babusnica and Vlasotince.

The existing drainage system, along the subject road section of the state road IB 39, consists of shoulders with ditches, gutters and culverts. Due to the cross-fall of the pavement on certain road sections, atmospheric water flows over the shoulders, and, on the right side of the road water from the surrounding terrain flows in ditch, but on the left side, water flows over the slope of the embankment.

Water from the ditches flows from upper side of terrain, through the pipe culverts, up to the downstream side of the terrain. Inlet and outlet culvert heads made of reinforced-concrete materials are done properly.



*Figure 3: Ditch along the right edge of the pavement*





*Figure 4: Inlet reinforced-concrete head of the culvert*

The section from Ljuberađje to Grncar is characteristic by the gutter on the right side and the shoulder on the left side of the pavement. The gutter is partially filled. The water from the gutter flows in the culverts and passes through the roadbed. The culverts are reconstructed.



*Figure 5: The gutter along the right side of the pavement*

The subject road section is located along the Luznica River and intersects it twice. The subject road section also intersects with larger Rdjavica River three times, and one time intersects with: Linovstica River, Dolska Valley, Brestovdolski Creek and Jablanica River.

**Intersection no. 1 over the Luznica River at km 29+002.50**



*Figure 6: Access to the bridge over the Luznica River (Intersection no. 1)*

**Intersection no. 2 over the Luznica River at km 30+299.00**



*Figure 7 and 8: The bridge over the Luznica River (Intersection no. 2)*

**Intersection no. 3 over the Linovstica River at km 34+567.32**



*Figure 9: The box culvert over the Linovstica River*

**Intersection no. 4 over the Dolska Valley at km 37+156.50**



*Figure 10: The bridge over the Dolska Valley*

**Intersection no. 5 over the Brestovdolski Creek at km 37+603.24**



*Figure 11: The box culvert over the Brestovdolski Creek*

**Intersection no. 6 over the Jablanica River at km 40+155.00**



*Figure 12: The bridge over the Jablanica River*

**Intersection no. 7 over the Rdjavica River at km 41+300.00**



*Figure 13: The bridge over the Rdjavica River (Intersection no. 7)*

**Intersection no. 8 over the Rdjavica River at km 41+791.00**



*Figure 14: The bridge over the Rdjavica River (Intersection no. 8)*

**Intersection no. 9 over the Rdjavica River at km 52+922.00**



*Figure 15: The bridge over the Rdjavica River (Intersection no. 9)*

In the conditions of PE "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 is defined by the Regulation on limit values for emissions of pollutants in water and deadlines for their achievement ("Official Gazette of RS", Nos. 67/11, 48/12 and 1/16).

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 fish species (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.

There is no railway or industrial facilities along the subject section, neither parallel nor intersection.

The water supply source "Ljuberadja" is located in the southeastern parts of mountain Suva, southwest of the municipality Babusnica, in the valley of the Luznica River, between the village Ljuberadja in the southwest and the village Gorcinci in the northeast. The design solution respects the sanitary protection zone of the water supply source "Ljuberadja" and conditions issued by the relevant institutions. Since the rehabilitation of the existing road is subject of this design, impact to the water source is insignificant.

The water supply source "Ljuberadja" is located on the subject road section at chainage from km 29+860 to km 29+915 and from km 30+110 to km 30+500.



Figure 16: The location of the water supply source „Ljuberadja”

The protective fence is placed at the border of the immediate sanitary protection zone.



*Figures 17 and 18: The protection zone of the water supply source “Ljubradja” around water intake “Source 1”*



*Figures 19, 20, 21 and 22: The protection zone of the water supply source “Ljubradja” around water intake “Source 5, 6, 8, 9”*



*Figure 23: The water supply source “Ljubradja” outside the immediate sanitary protection zone*

Continuous 7-days traffic counting was performed: for the section Babusnica - Bonjince the existing traffic load of 1039 vehicles/day was collected, and for the section Bonjince - Svodje the existing traffic load of 455 vehicles/day was collected.

Along the subject state road IB 39 section Babusnica – Svodje there are 6 connections with the local municipal roads, 2 connections with the state roads, 11 connections with the unclassified roads and 22 connections with the streets as well as connections with the individual approaches to private buildings, schools, cemetery and plots or recreational areas. All existing connections to agricultural land, connections with municipal roads and pedestrian paths are provided along the road in the settlements.

According to data received in conditions issued by Municipality Babusnica, existing bus stops are as follows:

- Pluzna at km 25+478.00 (out of the subject road section)
- Gorcinci at km 25+028.00
- Ljuberađja at km 31+028.00
- Grncar at km 35+078.00
- Golubovici at km 37+428.00
- Modra Stena at km 39+428.00
- Malo Bonjince at km 40+978.00
- Veliko Bonjince at km 42+528.00.

Municipality Vlasotince in their conditions mentioned two bus stops:

- In the village centre close to the post office (out of the subject road section)
- In the village Tropsine, so there is no need for new bus stops.

The opening of new bus stops is not foreseen by this project, in accordance with the conditions obtained for this design from the relevant institutions and from both municipalities where the subject road section passes. In order to increase traffic safety, it is required the reconstruction of existing bus stops by their relocation out off the pavement, where there are spatial possibilities for this, or just by marking the location of bus stops within the pavement.



*Figures 24 and 25: The existing bus stop - Gorcinci at km 25+028.00*





*Figure 26: The existing bus stop - Ljuberadja at km 31+028.00*



*Figure 27: The existing bus stop - Grncar at km 35+078.00*



*Figure 28: The existing bus stop - Golubovici at km 37+428.00*



*Figure 29: The existing bus stop - Modra Stena at km 39+428.00*

The subject section can be characterized as typical non-urban section with transits through rural settlements.

Existing pedestrian paths are located in the settlement Ljubradja, but in other settlements on the subject road, pedestrian traffic is on the carriageway.

On the subject section there are institutions of public importance as follows:

- Primary school - Gorcinci at the chainage km 28+460.00
- Primary school „Mladost“ - Modra Stena at the chainage km 38+375.00
- Primary school „Dositej Obradovic“ - Svodje at the chainage km 45+400.00
- The Post Office – Ljubradja at the chainage km 31+000.00.

## **Summary of Environmental Impacts**

Due to the rehabilitation works, temporary negative impacts could be caused. They 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 neighbouring areas (due to air pollution and increased noise pollution). Short-term disturbance of natural biocenosis 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 smaller traffic load. After road rehabilitation, in accordance with the declared traffic analyses and forecasts, increase of road traffic is 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 to the quality of water in the Luznica River and its tributaries is expected to be minimal or negligible, since the expected amount of water drained from the carriageway is small.

Considering that traffic already exists along the subject road section, and that all relevant institutions have been asked for an opinion for the water supply source of „Ljubradja“, it is estimated that the impact to quality of water is minimal or negligible.

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”, Nos. 30/10, 93/12 and 101/16), are applied.

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. The conclusions will be presented in the report from public presentation, which will be included in this document.

## 1. PROJECT DESCRIPTION

Typical cross section of the existing road consists of two traffic lanes ~5.0-6.0 m total width, with added pedestrian paths through the settlements and on locations where there is a need to connect the bus stops with the access roads.

Shoulders width are ~1,0 m double sided, stabilized by the crushed stones.

Mostly part of the subject section is in side cut, the water inflows from the pavement to the downstream side of the embankment's slope and goes over the shoulder, and on the cut the water inflows in the gutter.

On the subject section, an open drainage system is designed, which consists of gutters that inflow water into the culverts.

Newly designed typical cross section:

CROSS SECTION		V=60km/h	Vcal=40km/h
width of traffic lane	tv	3.00 m	2.75 m
width of edge strips	ti	0.25 m	0.25 m
shoulder width	b	1.00 m	1.00 m
minimum cross slope	min ip	2.5 %	2.5 %
maximum cross slope pavement in a curve	max ipk	7.0 %	7.0 %
	Total width:	6.50 m	5.50 m

Width of the carriageway of subject road in settlements is 5.00-6.50 m.

Considering that only in the settlement Ljuberađja there are pedestrian paths in poor condition, new pedestrian paths are designed in all settlements, as well as on the road outside off the settlement where increased pedestrian movement is expected (to and from the bus stops).

Pedestrian paths are envisaged on the following sections:

Start chainage	End chainage	Length [m]	Position in the cross-section	Position relative to the settlement
27+812.56	28+028.03	215.47	right	Gorcinci
28+021.53	28+990.68	969.15	left	Gorcinci
30+624.33	31+032.62	408.29	right	Ljuberađja
34+843.35	35+007.14	163.79	left	Grncar
34+992.84	35+264.99	272.15	right	Grncar
37+095.07	37+296.48	201.41	left	outside off the settlement
37+113.82	37+337.48	223.66	right	outside off the settlement
38+684.59	38+788.29	103.70	right	Modra Stena
38+785.19	40+026.34	1241.15	left	Modra Stena
40+547.87	40+705.04	157.17	left	outside off the settlement
41+257.36	41+650.29	392.93	right	outside off the settlement
43+758.29	44+431.66	673.37	right	Svodje (Tropsine)

Design of the new road alignment was developed taking into account the Terms of Reference, all obtained requirements and approvals of the responsible institutions, and rulebooks and standards in road design.

Widening for the area for bus stops outside of the carriageway was designed in places where it was possible to form them. The bus stops were designed as modular, dimensions defined by the current Rulebook, with 3.0 m pavement widening and 14.0 m long, marked on a roadway, with 2.0 m wide sidewalk.

## Location Description

The subject road section belongs to Pirotski and Jablanicki Administrative District located in in southeastern part of Republic of Serbia. Road section Babusnica – Svodje belongs to state road IB 39 (old road designation M-9) ("Official Gazette of RS" No. 93/2015), which represents the cross traffic link through southeastern part of Serbia.

The subject section is located through the municipalities of Babusnica and Vlasotince.

The road section starts 1838 m after the node 3904 Babusnica (around km 25+851, where is the board indicating the settlement of Babusnica) and ends at the node 3906 Svodje. The part of the road section from the exit from Babusnica is already reconstructed, pedestrian paths and storm water drainage are constructed.

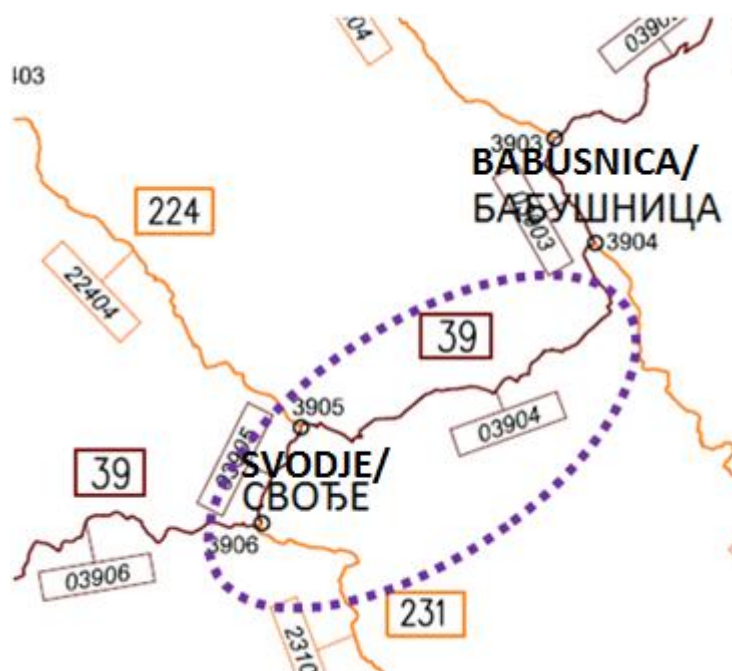


Figure 30: Location of the subject section

## Rehabilitation works description

The parts of the rehabilitation subject section, the area of the settlement as well as the achievable width of the pavement are as follows:

- at km 25+866 - 27+689 (section length 1823.0 m) is non-rehabilitated pavement, existing width 5.5 - 6.8 m,
- at km 27+689 - 34+550 (section length 6861.0 m) is partially rehabilitated pavement, existing width 4.2 - 6.6 m, and designed width will be 5.5 - 6.0 m in the section out of the settlement, and 5.0 -6.0 m in the settlement area,
- at km 34+550 - 42+554 (section length 8000.0 m) is rehabilitated pavement, with organized drainage system. Existing pavement width is 5.0 – 6.1 m, and this part of the subject road section is without intervention,
- at km 42+554 - 45+403 (section length 2850.0 m) is not rehabilitated pavement, existing width 5.0 - 6.3 m, and designed width will be 6.5 m in the section out of the settlement, and 6.0 m in the settlement area.

Also, as a part of the subject design documentation, it is required to organize lateral connections. In addition to this, in order to increase traffic safety, it is predicted to set up with the road traffic regulations as part of the traffic signalling project.

Apart from the mentioned, by subject documentation is required the rehabilitation of existing structures, retaining walls, culverts, bridges, and the rehabilitation of the protective pedestrian and the safety barriers.

The aim of making technical documentation in the form of Main design for heavy maintenance is the increase usage value and durability of the road, improving traffic safety. It requires the inclusion of the local community (social aspect) and respect for environmental protection requirements to the maximum extent possible in the circumstances of physical constraints (section context) and the limitations arising from the nature of the permitted construction and traffic interventions (legal basis).

The dominant types of damage on the subject section are:

- longitudinal and transverse cracks due to thermal effects and impact of traffic load during exploitation,
- pavement repairs, as a result of intervention of periodic maintenance due to intense damage during the previous exploitation period,
- mesh cracks as a result of the fatigue of the pavement structure.





*Figures 31, 32 and 33: Example types of damage on the road section*

The project solution of the drainage system of the state road IB 39 is based on the correct functional and technical characteristics of the elements in the existing state, which are supplemented with certain new elements. All of these elements fit into the designed state of the other parts of the road.

The concept of drainage in the design solution is required with the shoulders, ditches, gutters and culverts which are with their functional and technical characteristics, an integral part of the project solution for heavy maintenance.

Among other things, from the social aspect, it is stated that the open outflow at the chainage ~km35+250, represents a serious problem for safe traffic in the winter period. At the position of the open outflow, at the chainage ~km35+250, it is required, by the design, that the water drains from the pavement and forms a watercourse and culvert.

The bus stops are designed as modular, dimensions defined by the current Rulebook, marked on a roadway, with a sidewalk 2.0 m wide and 14.0 m long, and with pavement widening of 3.0 m, in places where it was possible to form this area outside of the carriageway. During the design preparation, it was tended to retain the existing location as much as possible.

<b>The settlement</b>	<b>Chainage</b>	<b>Position relative to the axis</b>	<b>Position in profile</b>
The Municipality of Babusnica			
Gorcinci	27+870	Left	On the pavement
	28+005	Right	On the pavement
	28+420	Left	On the pavement
	28+485	Right	Outside the pavement
Ljuberadja	30+875	Left	On the pavement
	30+985	Right	On the pavement
Grncar	34+860	Left	Outside the pavement
	35+020	Right	On the pavement
Golubovici	37+210	Left	On the pavement
	37+290	Right	On the pavement
Modra Stena	39+090	Left	Outside the pavement
	39+155	Right	Outside the pavement
Malo Bonjince	40+630	Right	Outside the pavement
	40+710	Left	Outside the pavement
Veliko Bonjince	41+305	Left	Outside the pavement
	41+380	Right	Outside the pavement
<b>The settlement</b>	<b>Chainage</b>	<b>Position relative to the axis</b>	<b>Position in profile</b>
The Municipality of Vlasotince			
Tropsine	44+005	Left	On the pavement
	44+085	Right	On the pavement



## 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 of RS", Nos. 135/04 and 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. 020-2195/3 dated October 9<sup>th</sup> 2017 and modification of condition 03 no. 020-1547/2 dated June 28<sup>th</sup> 2018 Institute for Nature Conservation of Serbia (INCS) 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. 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. 1105/2 dated September 14<sup>th</sup> 2017 the Institute for Protection of Cultural Monuments Nis (IPCMN) issued technical protection measures needed for development of project technical documentation. It states that there was no systematic prospecting of immovable cultural property and that it is necessary to notify Institute when the works are about to begin, as well as obligations of the Contractor/Investor during the project implementation.

**Final Environmental Approval is obtained from the Ministry of Environmental Protection (MoEP) (No. 011-00-00196/2018-03 dated March 12<sup>th</sup> 2018) stating that Project Carrier (PERS) is not obliged to conduct EIA procedure for this project (Appendix 6). Consequently, that there is no need for producing the Environmental Impact Study of the subject section of the state road. The work envisages strengthening of the existing pavement structure in the existing dimensions and existing sanitary drainage system, with a special definition of the operating regime in the water supply source zone of the Ljuberađja – Nis.**

## 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 Babusnica – Svodje belongs to Pirotski and Jablanicki Administrative District located in southeastern part of Republic of Serbia, to the municipalities Babusnica and Vlasotince.

There are no protected natural properties and for cultural properties there was no systematic prospecting of immovable cultural property in the vicinity of the subject road section, nor is it close to the ecological network. Works which are proposed with this design will be conducted only in the existing road area and completely in accordance with Statement 03 no. 020-2195/3 dated October 9<sup>th</sup> 2017 and modification of condition 03 no. 020-1547/2 dated June 28<sup>th</sup> 2018 issued by INCS.

On the right side of the road, looking back from the direction of the growth of the chainages, there is a waste dump of building material.



*Figure 34: The waste dump of building material*

In addition to the mentioned the waste dump of building material along the subject section, there are places, mostly near the settlement, where are some quantity of waste as plastic bottles, bags and etc. The waste is located on the slope of the embankment.



*Figures 35, 36 and 37: Scattered garbage - the exit from the settlement Babusnica*



*Figures 38 and 39: Scattered garbage - Luznica River under the bridge in Gorcinci*



*Figures 40 and 41: Scattered garbage - at the entrance in Modra Stena*

The road designer required the cleaning of the road plot, and suggested that the local community solve the problem of illegal waste dumps outside the road plot, in order to ensure efficient drainage of the road. The Spatial Plan of the Babusnica Municipality and the Waste Management Strategy of the Republic of Serbia 2010-2019 proposed the use of a regional sanitary landfill at the location “Muntina Padina” in Pirot, as this landfill has satisfied all sanitary conditions and conditions of the European Union. The recommendation of the EMP document would be the use of the previously mentioned landfill or any other landfill that respects European standards and complies with the regulations of the Republic of Serbia.

Under the same conditions issued by INCS as for water flow from the pavement surface if loaded with oil and other petroleum products, it is necessary to provide precipitators and separators of fats and oils, if the Environmental Management Plan determines/estimates

that average annual daily traffic will adversely affect the quality of the Luznica River and other watercourses with which the subject state road crosses or is parallel, meaning that the limit values would be unbalanced compared to values - defined by the Regulation on emission limit values for polluting materials in the waters and deadlines for their reach ("Official Gazette of the RS" Nos. 67/2011, 48/2012 and 1/2016) and the Regulation on Limit Values of Pollutants in Surface and Ground Water and Sediment and Deadlines for their Completion ("Official Gazette of RS" No. 50/2012). This condition is accomplished as explained in following paragraph.

In accordance with previously mentioned conditions by INCS and based on the analytical calculation for certain types of pollutants according to the method defined in the "Calculation of loads of chronic pollution from roadways runoffs (Sétra, July 2006)", which gives a link between emissions of pollutants and average annual daily traffic, as well as by comparing the obtained results with the values from the Regulation on the emission limit values of pollutants in waters and the deadlines for their achievement ("Official Gazette of RS" Nos. 67/2011, 48/2012 and 1/2016) and the Regulation on Limit Values of Pollutants in Surface and Ground Water and Sediment and Deadlines for their Completion ("Official Gazette of RS" No. 50/2012 ), it was estimated that it is not necessary to treat the water before the discharge into the recipient on the subject section, it is not necessary to construct filters in any part of the section (excluding the water supply source zone).

Although it was not demanded by issued conditions, after consulting with JKP Naissus, in the zone of sanitary protection of the water source, it is required that the water from the bridge at the chainage km 30+250 is collected and taken to the separator together with water from the culvert at the chainage km 29+922. The culvert at the chainage km 30+367.83, according to the discussion with JKP Naissus, does not endanger the water source. The location of the mentioned separator for water purification is at the chainage km 30+150.

On the subject road section outside the settlement, open drainage system is designed for runoff water from the pavement and evacuation of atmospheric waters from the surrounding terrain. Due to cross grade of the carriageway, atmospheric water flows over the shoulders down the slope of the embankment, at the left side of the road looking in the chainages growth direction. On the right side, the atmospheric water flows across the shoulder into a ditch or a gutter.

The ditches and gutters, besides water from the carriageway, collect the water from the surrounding terrain. From ditches and gutters, the atmospheric water, is led by the appropriate longitudinal grade of the road, to culverts that are set transversally in relation to carriageway. The inlet of gutters and ditches in the culvert is carried out over a reinforced concrete shaft, for which is required installation of concrete covers.

The culverts are with round cross-section, flattened or boxed. On the opposite side of the inflow shaft, a retaining wall is designed. At the places of the outflows, it is planned to cover the canals and slopes in the exit zone in a length of 3 m (stone in concrete). Drainage pipes that are installed for draining the water from the subgrade pavement are connected to the inflow shafts of the culverts.

On the subject road section, in the zone of the settlement, an open drainage system is designed, with the possibility that in further preparation of the design details, in places where, due to spatial restrictions, it is necessary, a different drainage solution is applied.

Under all designed connection roads, it is also required to install culverts that have the function of free flow of atmospheric water from gutters and ditches along the road.

It should be noted that the drainage system of each connection road is covered by this design and should be based on a case-by-case and the amount of atmospheric water occurring on these sections should be adequately evacuated (installation of channels for collecting water and leading water into the designed drainage system of the main road).

On the terrain where is visible the surrounding water flow from the slope, it is planned to collect the surrounding water by means of road channels, which, in order to prevent erosion, should be made of concrete.

There are no protected natural areas along the subject road section that could be influenced by the works on heavy maintenance, and also there was no systematic prospecting of immovable cultural property. 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

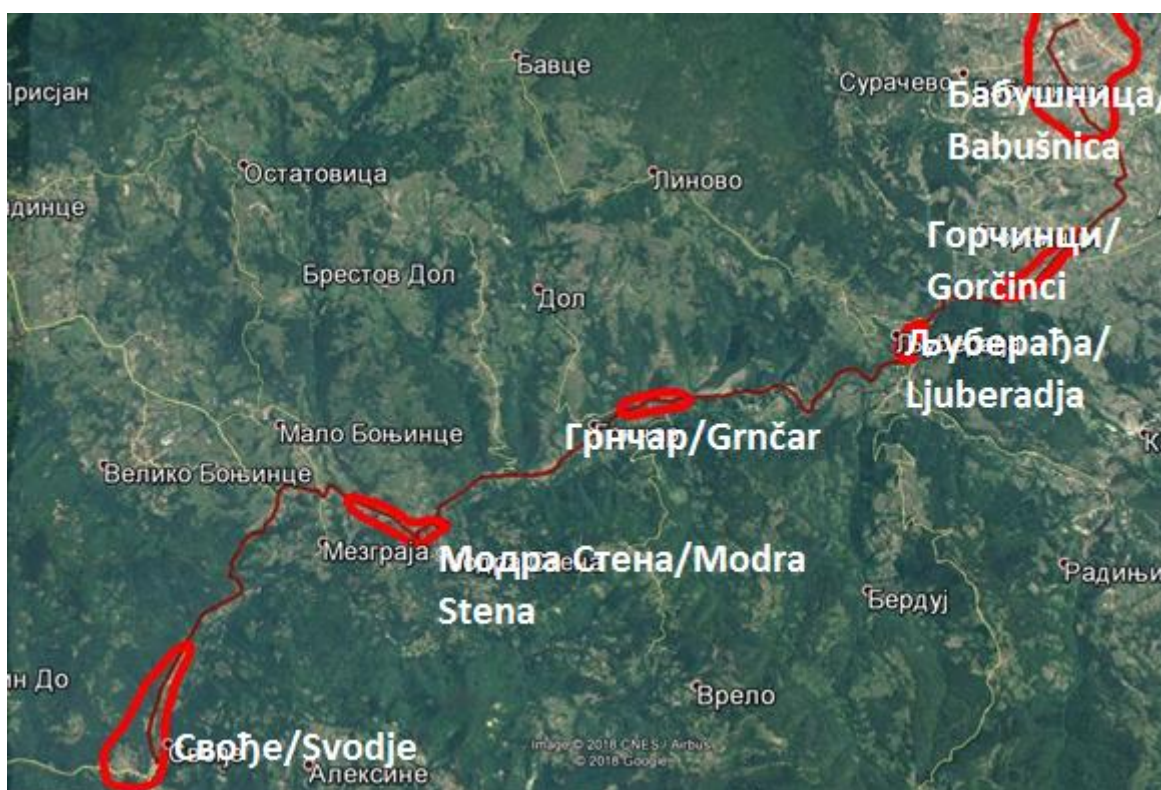


Figure 42: The location of the subject section and settlements

## The Municipality of Babusnica

Functionally, according to Regulation of conditions that in terms of road safety must comply road structures and other public road elements ("Official Gazette of RS", No. 50/2011), subject road section can be classified into remote interregional road (connecting interregional road). It is one of the main roads of southeastern Serbia and is the only transversal connection of international highways E75 and E80.

As already mentioned, the beginning of the subject section is at km 25+866.00, and end at km 45+42500. The section can be characterized as typical road outside of the city and also which passes through rural settlements.

The Municipality Babusnica is located in Pirotski Administrative District and consists of 53 settlements: Aleksandrovac, Berduj, Berin Izvor, Bogdanovac, Bratisovac, Brestov Dol, Vava, Valnis, Veliko Bonjince, Vojnici, Vrelo, Vuci Dol, Gornje Krnjino, Gornji Strizevac, Gorcinci, Grncar, Dol, Donje Krnjino, Donji Strizevac, Zavidince, Zvonce, Izvor, Jasenov Dol, Kaluzerovo, Kambelevci, Kijevac, Leskovica, Linovo, Ljuberaja, Malo Bonjince, Masurovci, Mezgraja, Modra Stena, Nasuskovica, Ostatovica, Preseka, Provaljenik, Radinjinci, Radosilj, Radosevac, Rajin, Resnik, Stol, Strelac, Studena, Suracevo, Crvena Jabuka and Strobovac, divided in 51 cadastral municipalities. The territory of the Municipality of Babusnica has a total area of 52 880 ha.

At the Municipality of Babusnica from objects of public importance, there are prominent classes of elementary schools aged up to fourth grade with small number of pupils in the settlements of Gorcince and Modra Stena. Along the subject roads in the settlements, pedestrian paths were formed and in the width in which they allowed spatial restrictions (boundaries, plots, existing buildings and etc.). Pedestrian paths have been formed in the primary school zone, which have direct access to the state road.

According to the last census (2011), there are 12 307 inhabitants in the Municipality of Babusnica in 53 settlements. The Municipality of Babusnica has an average population density of 23 inhabitants per 1km<sup>2</sup>.

The area of the Municipality of Babusnica is oriented towards road traffic.

The municipality of Babusnica is 65 km southeast of Nis, 25 km southwest of Pirot and 55 km northeast of Leskovac.

### **The Municipality Vlasotince**

The area of the Municipality of Vlasotince covers an area of 30 800 ha and is located in Jablanicki Administrative District. According to the last census (2011), there are 29 893 inhabitants. The Municipality of Vlasotince has an average population density of 97 inhabitants per 1km<sup>2</sup>.

On the territory of Vlasotince municipality of buildings of public importance, there is a primary school in the settlement Svodje, at the intersection that represents the end of the subject section.

### **Bicycle traffic**

There are no pedestrian and bicycle routes on the subject section.

### **Railway traffic**

There is no railway infrastructure along the section, neither is it parallel or crossed.

## Watercourses

The Luznica River is in the southeast of Serbia in Babusnica municipality. It flows through its Luznicka basin. The source of the Luznica River (the river springs) is in the north of the Babusnica municipality near the village of Radosevac. The Murgovica River flows into Luznica River in the village of Ljubradja and represents its largest left tributary. The Luznica River flows into the Vlasina River in Snovo village. The length of the Luznica River is 39 km, characterized by uneven flow and significant erosion in the basin.

## Air

There are no significant additional sources of air pollution within the planned road section Babusnica – Svodje. 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	Does not exist	During the realization of the project, there will be no expropriation of land
Ground and surface water	Low	Due to small value of the Average Annual Daily Traffic and low amount of water that can come to the recipient by drainage, the consequential impact is minimal to negligible. Also separator for water purification in the protection zone of water supply source "Ljubradja" contributions that the consequential impact is minimal or negligible.
Air quality	Low	Temporary impact
Flora and fauna (protected areas and species)	Negligible	Under the terms of the Provincial Institute for Nature Conservation
Monuments	Low	Under the terms of the Provincial Institute for Protection of Cultural Monuments
Noise	Low	Temporary impact

Access/crossing points of the main road and local roads	Low	The rehabilitation and widening works will not affect significantly existing crossing points
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	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 Babusnica – Svodje. 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, near the rivers: Luznica River and its tributaries, 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 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, outside the site zone.

## **ENVIRONMENTAL MANAGEMENT PLAN**

Environmental impacts of the project for heavy maintenance on the road section Babusnica - Svodje 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 Conservation of Serbia and 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 relevant institutions 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 zone coastal part of the rivers: Luznica River and its tributaries, 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 (monitored), so that the earthworks and machinery do not affect the surrounding areas and its quality. Also, the existing road network must be used, without building new roads, to prevent habitat fragmentation;
- ❖ During the road works directly along the rivers: Luznica River and its tributaries, river bed and river bank 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 ("Official Gazette of RS", Nos. 30/10, 93/12);
- ❖ Contractor must provide safety measures to prevent soil erosion and use the methods to decrease the storm water 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 Labour 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. 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 ("Official Gazette of RS", Nos. 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 ("Official Gazette of RS", Nos. 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 ("Official Gazette of RS", Nos. 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 ("Official Gazette of RS", Nos. 101/05, 91/15);
- ❖ Contractor shall provide to his workers potable water supply, toilets and water supply for washing;
- ❖ Safety Labour Management Plan (SLMP) 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 ("Official Gazette of RS", Nos. 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](mailto: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

Semi-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 Semi-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.

## 5. STAKEHOLDER ENGAGEMENT - INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

As requested by IFIs safeguard policies, public consultations will be held in the EMP preparation. EMP and other project-related information will be disclosed to the public and made available to the local community.

PERS office	Vlajkovicewa St. 19 a, Belgrade, Contact person: Igor Radovic, 011 3206811
Local community centres	The Municipality of Babusnica and the Municipality of Vlasotince
Web site - PERS	<a href="http://www.putevi-srbije.rs">www.putevi-srbije.rs</a>

A detailed report on the public consultation process will be shown in Appendix 4 to this document and will contain a list of participants identified.



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

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 centres.

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

## **6. 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	<b>Main Design</b>			
	Following the environmental protection procedure	Conditions from the Institute for Nature Conservation 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 organization will be approved by PERS and selected so as to:	<ul style="list-style-type: none"> <li>- be outside of the river banks and river flood area of Luznica and be outside of subject road section from chainage km 29+860 to km 29+915 and from km 30+110 to km 30+500, location where is protection zone of water supply source „Ljubradja“</li> <li>- have no impact on the environment and the local community (noise, dust, vibrations etc.)</li> <li>- be outside the high vegetation area</li> <li>- minimize the size of the facilities to minimize the unnecessary removal of vegetation</li> <li>- have the sanitary waste water treated before the water is discharged into the surface water system, in accordance with the Law on Water (“Official Gazette of RS”, No 101/05)</li> <li>- properly drain the locations. Paved areas, including parking areas, workshops and fuel storages must be drained toward an oil-water separator</li> <li>- whenever possible, limit the area to be cleared and avoid topsoil degradation</li> <li>- the material removed will be collected, disposed and/or re-used as needed</li> <li>- prevent soil erosion on site</li> <li>- Contractor is responsible for implementing the</li> </ul>	PERS  Contractor	PERS

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		measures for erosion protection - Contractor shall limit the scope of the excavations to mitigate soil erosion - 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.		
	Selection of the location for temporary settlement construction, in the vicinity of or within an existing settlement  Influence on public health and sociological circumstances	- minimum distance must be kept (buffer zone) between the site and the nearest populated area - influence of the local conditions must be accounted for (wind) to avoid or minimize harmful effects - Contractor's EMP defines health, safety and environmental measures - independent water and electricity supply, in addition to a medical service station on site must be planned for.	Contractor	PERS
	Safety of pedestrians and suitable crossings	- a suitable pedestrian crossing must be provided, equipped with kerb ramps that allow the use of wheelchairs, trolleys, bicycles and prams.	Main Design Designer - Consultant	Main Design Technical Control PERS
	Stakeholder engagement	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.	PERS and Main Design Designer - Consultant	Main Design Technical Control PERS
<b>Construction</b>	<b>Management plans</b>			

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	Contractor shall prepare the implementation of the Plans described in the EMP, to ensure that the legislation and Creditor's requirements have been met: <ul style="list-style-type: none"> <li>- Site Organization Plan</li> <li>- Sewerage and Wastewater Management Plan</li> <li>- Soil Management Plan</li> <li>- Dust Management Plan</li> <li>- A plan indicating the location of borrow-pits, and measures for recultivation of borrow-pits and access roads after the project is completed</li> <li>- Waste and Wastewater Management Plan, in line with the Law on Waste Management ("Official Gazette of RS", No 36/09)</li> <li>- Oil and Fuel Storage Management Plan</li> <li>- In-river Works Management Plan</li> <li>- Emergency Response Plan</li> <li>- Complaints Procedure</li> <li>- Safety and Hazard Assessment</li> <li>- Safety and Labour Management Plan</li> </ul>			
<b>Construction</b>	<b>Site Induction</b>			
	All workers and visitors to the site shall be given a health and safety induction and instructed on the need to use PPE.			
<b>Construction</b>	<b>Material Supply</b>			
	asphalt plant: dust, fumes, health and safety of workers, ecosystem disturbance	<ul style="list-style-type: none"> <li>- use the existing asphalt plants;</li> <li>- requirement for official approval or valid operating license</li> </ul>	Asphalt plant	Asphalt plant
	quarry: dust, health and safety of workers, ecosystem disturbance	<ul style="list-style-type: none"> <li>- use the existing quarries;</li> <li>- requirement for official approval or valid operating license</li> </ul>	Quarry	Quarry

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	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
<b>Construction</b>	<b>Material Transport</b>			
	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 (from 09:00 am to 02:00 pm) - use alternative roads to avoid main roads - proper road signs and markings of the site, to minimize 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 IPCMN and PERS	Contractor	Contractor's supervision
<b>Construction</b>	<b>Construction Site</b>			
	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	Contractor	Contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		<p>more than one day on the same location.</p> <ul style="list-style-type: none"> <li>- locate noise-making equipment as far away as possible from residential buildings and other noise-sensitive receptors.</li> </ul>		
	dust	<ul style="list-style-type: none"> <li>- spray the problematic areas on site with water</li> <li>- cover the material stored and limit vehicle speed</li> <li>- implement the Dust Management Plan: measures for 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.</li> </ul>	Contractor	Contractor
	vibrations	<ul style="list-style-type: none"> <li>- limit activities to daylight working hours</li> <li>- 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</li> <li>- locate the equipment for earth works as far away as possible from vibration-sensitive receptors</li> </ul>	Contractor	Contractor
	traffic disruption during construction activities	<ul style="list-style-type: none"> <li>- Traffic Management Plan with appropriate measures for traffic diversions that can be easily noted and followed, including traffic police assistance</li> <li>- 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</li> <li>- during the works, maximum use of the existing road network. Avoid the construction of new temporary roads, which would increase the habitat fragmentation</li> </ul>	Contractor	Contractor



Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		- inform the local community about the works planned		
	reduced access to roadside activities	provide an alternative access to roadside activities at all times	Contractor	Contractor
	safety of vehicles and pedestrians 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"> <li>- organise and cover material storage areas</li> <li>- isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers</li> <li>- 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</li> <li>- organize the site so as to minimize the risk of generating sediments and accumulating waste water, which could cause pollution of the surrounding soil and water</li> <li>- Soil Management Plan to provide controlled removal, storage and re-use of topsoil</li> <li>- 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.</li> <li>- 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.</li> <li>- 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</li> </ul>	Contractor	Contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		degraded by the works must be done.		
	soil and water pollution from improper waste material disposal	<ul style="list-style-type: none"> <li>- dispose waste material at a location protected from washing out, on a marked location, if not on site, then on an authorised landfill (EMP proposed the use of a regional sanitary landfill at the location "Muntina Padina" in Piroat, as this landfill has satisfied all sanitary conditions and conditions of the European Union. The recommendation of the EMP document would be the use of the previously mentioned landfill or any other landfill that respects European standards and complies with the regulations of the Republic of Serbia).</li> <li>- dispose waste in accordance with best international practice (IFC, EHS – general guidelines).</li> <li>- 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</li> <li>- nominate a person responsible for waste collection and storage (hazardous and non-hazardous)</li> </ul>	Contractor	Contractor
	protection of water supply area	in the zone of sanitary protection of the water source, the water from the bridge at the chainage km 30+250 should be collected and taken to the separator together with water from the culvert at the chainage km 29+922	Contractor	Contractor
	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	- transport the waste in marked vehicles designed for waste transport, to minimize the risk of releasing hazardous and non-hazardous substances	Contractor	Contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		- 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		
	safety of workers	- provide workers with safety instructions and PPE - provide a safe alternative traffic flow	Contractor	Contractor
	areas temporarily occupied	- 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
<b>Operational</b>	<b>Maintenance</b>			
	negative impact of noise on local residents and workers	- limit activities to daylight working hours, or as agreed with the authorities - use the equipment with noise mufflers installed	Maintenance contractor	Maintenance contractor
	potential air, water and soil pollution: dust, exhaust fumes, spilt fuel, oil and lubricants	- apply the best engineering practice in handling and safe storage of lubricants, fuel and oil - 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	Maintenance contractor	Maintenance contractor

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		protected from washing out		
	vibrations	limit activities to daylight working hours, or as agreed with the authorities	Maintenance contractor	Maintenance contractor
	safety of workers	- 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 or pedestrian crossing, school, slow traffic zone), reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility, warning signs on locations considered appropriate in line with good engineering practice or as agreed with the authorities	Maintenance contractor	Maintenance contractor

## **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
<b>Construction</b>	<b>Material supply</b>					
<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
<b>Construction</b>	<b>Material transport</b>					
<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
<b>Construction</b>	<b>Construction site</b>					
<i>negative effects of noise on the workers and local residents</i>	noise levels	site; nearest homes in the local settlements at the section Babusnica-Bonjince	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)	at and near the site; nearest homes in the local settlements at the section Babusnica-Bonjince	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 and pedestrians 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, 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 Luznica 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 organization	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
<b>Operational</b>	<b>Maintenance</b>					
<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, safety and environmental requirements and minimal disruptions to traffic	PERS
<i>safety of workers</i>	PPE; bypass traffic organization	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
<b>Operational</b>	<b>Road safety</b>					
<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:

<b>1. General</b>		
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 programmes, 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 Data<sup>1</sup>

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

Parameter <sup>2</sup>	Value <sup>3</sup>	Unit	Compliance Status <sup>4</sup>	Comments <sup>5</sup>
<b>Waste Water</b>				
Total waste water generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
<b>Air Emissions</b>				
SO <sub>2</sub>				
NO <sub>x</sub>				
Particulates				
CO <sub>2</sub>				
CH <sub>4</sub>				
N <sub>2</sub> O				

<sup>1</sup> Please provide the results of any environmental monitoring carried out by the Company or its Consultants. If you already have all the data requested available in another format, then this can be used instead.

<sup>2</sup> Not all parameters will necessarily apply. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.

<sup>3</sup> Please ensure that the units of measurement are clearly stated

<sup>4</sup> Please report on compliance against the standards agreed with EBRD for this project (typically local, EU and/or World Bank Group)

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

Please provide the name and contact details for your environmental manager:				
Parameter <sup>2</sup>	Value <sup>3</sup>	Unit	Compliance Status <sup>4</sup>	Comments <sup>5</sup>
HFCs				
PFCs				
SF <sub>6</sub>				
[Other]				
<b>Other Parameters</b>				
Noise				
[Other]				
<b>Solid Waste</b>				
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 <sup>6</sup>	
<b>Fuels used</b>				
Oil				
Gas				
Coal				

<sup>6</sup> In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility. Please include any fuel quality parameters (e.g. calorific value)

#### 4. Resource Usage and Product Output

Parameter	Value	Measurement Unit	Comments <sup>6</sup>
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
<b>Number of direct employees:</b>			
<b>Number of contracted workers:</b>			
Were there any collective redundancies during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, how they were selected, consultation undertaken, and measures to mitigate the effects of redundancy:	
Are there any planned redundancies to the workforce in the next year?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation process:	
Were there any changes in trade union representation at Company facilities during the reporting period?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details, and summarize engagement with trade unions during reporting period:	

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 summarize engagement with them during reporting period:
Were there any changes in the status of Collective Agreements?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please provide details:
Have employees 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, summarize 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, summarize 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 summarize 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 summarize 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"> <li>• Union recognition</li> <li>• Collective Agreement</li> <li>• Non-discrimination and equal opportunity</li> <li>• Equal pay for equal work</li> <li>• Gender Equality</li> <li>• Bullying and harassment, including sexual harassment</li> <li>• Employment of young persons under age 18</li> <li>• Wages (wage level, normal and overtime)</li> <li>• Overtime</li> </ul>	Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, please give details, including of any new initiatives:



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

<b>Please provide the name and contact details for your Health and Safety manager:</b>					
	<b>Direct employees</b>	<b>Contracted workers</b>		<b>Direct employees</b>	<b>Contracted workers</b>
Number of man-hours worked this reporting period:			Number of Fatalities <sup>7</sup> :		
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) <sup>8</sup> :		
Number of lost workdays <sup>9</sup> 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):					

<sup>7</sup> If you have not already done so, please provide a separate report detailing the circumstances of each fatality.

<sup>8</sup> Incapacity to work for at least one full workday beyond the day on which the accident or illness occurred.

<sup>9</sup> Lost workdays are the number of workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

Please summarize any emergency prevention and response training that has been provided for company personnel during the report period:

Please summarize any emergency response exercises or drills that have been carried out during the report period:

**7. Stakeholder Engagement**

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

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

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

Please describe any changes to the Stakeholder Engagement Plan 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.
<p><b>New Land Acquisitions</b> If the company acquired any new land for the project during the reporting year, please provide documents to show closure of land acquisition transactions. Please attach new/revised RAP covering the new land acquisition and describe mitigation measures, compensation, agreements reached, etc., and provide in tabular form a list of affected people and status of compensation.</p>		
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 summarize 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 ("Official Gazette of RS", Nos. 72/09, 81/09, 64/10, 24/11, 121/12, 42/13, 50/13, 98/13, 132/14, 145/14);
- ❖ Law on nature protection ("Official Gazette of RS", Nos. 36/09, 88/10, 91/10, 14/16);
- ❖ Law on environmental protection ("Official Gazette of RS", Nos. 135/04, 36/09, 72/09, 43/11, 14/16);
- ❖ Law on EIA ("Official Gazette of RS", Nos. 135/04, 36/09,);
- ❖ Law on Strategic EIA ("Official Gazette of RS", Nos. 135/04, 88/10);
- ❖ Law on waste management ("Official Gazette of RS", Nos. 36/09, 88/10, 14/16);
- ❖ Law on noise protection ("Official Gazette of RS", Nos. 36/09, 88/10);
- ❖ Law on water ("Official Gazette of RS", Nos. 30/10, 93/12, 101/16);
- ❖ Law on forests ("Official Gazette of RS", Nos. 30/10, 93/12, 89/15);
- ❖ Law on air protection ("Official Gazette of RS", Nos. 36/09, 10/13);
- ❖ Law on safety and health at work ("Official Gazette of RS", Nos. 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 ("Official Gazette of RS", 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 ("Official Gazette of RS", No. 69/05);
- ❖ Rulebook on the contents of the EIA Study ("Official Gazette of RS", No. 69/05);
- ❖ Rulebook on the procedure of public inspection, presentation and public consultation about the EIA Study ("Official Gazette of RS", No. 69/05);
- ❖ Rulebook on the work of the Technical Committee for the EIA Study ("Official Gazette of RS", No. 69/05);
- ❖ Regulations on permitted noise level in the environment ("Official Gazette of RS", No. 72/10);
- ❖ Decree on establishing class of water bodies ("Official Gazette of RS", 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 ("Official Gazette of RS", 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 ("Official Gazette of RS", No. 38/09);
- ❖ Law on Roads ("Official Gazette of RS", No. 41/18).

## **APPENDIX 4 STAKEHOLDER ENGAGEMENT**

## Identification of stakeholders

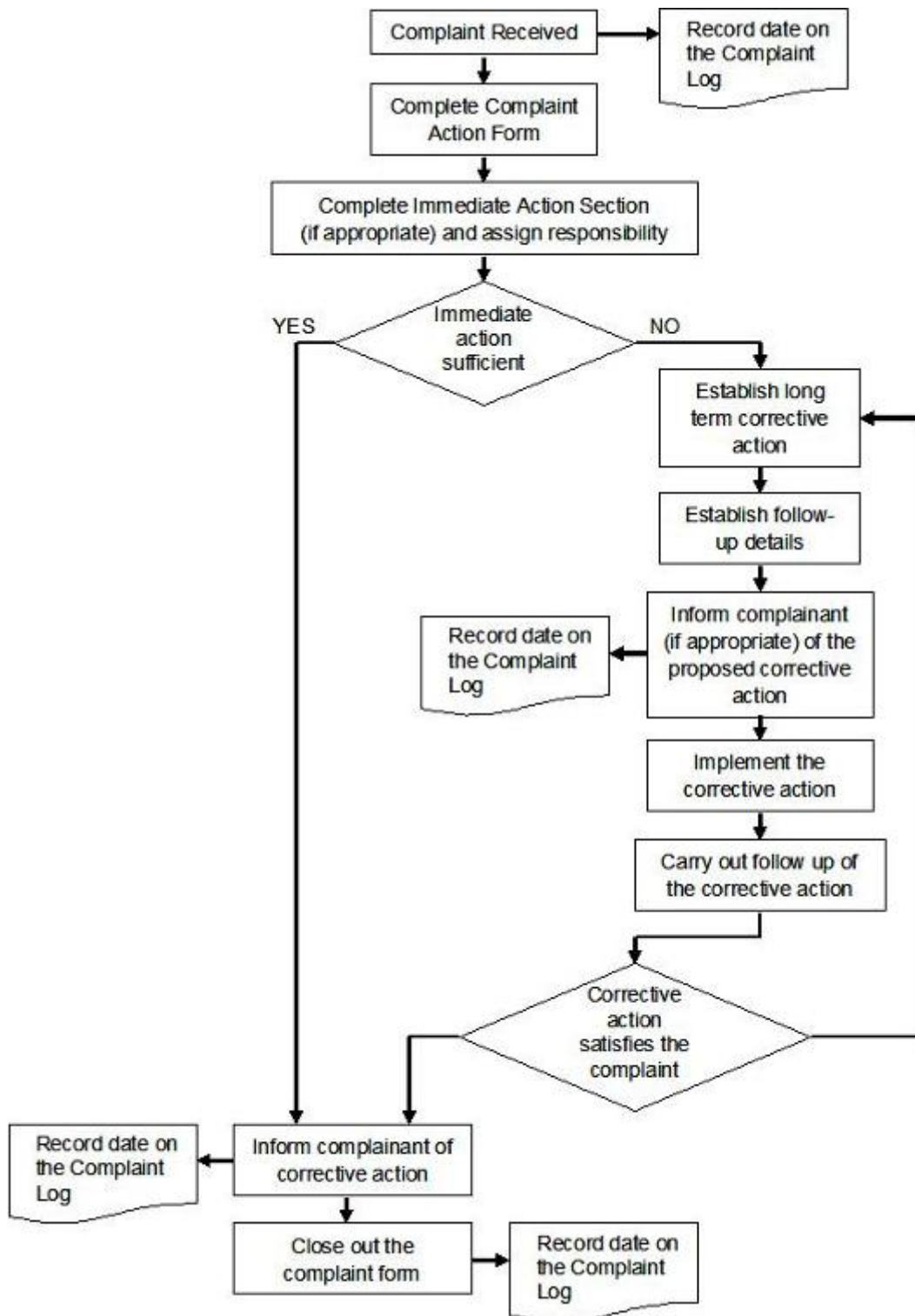
The stakeholders are people and organizations which may affect, be affected by, or believe to have been affected by a decision or activity. The stakeholders on this Project may be classified as follows:

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

ЈАВНО ПРЕДУЗЕЋЕ ПУТЕВИ СРБИЈЕ  
Бр: 953-18703/17-М  
Датум: 10-10-2017  
Београд, Булевар краља Александра бр. 389

Завод за заштиту природе Србије, Београд, Ул. др Ивана Рибара бр. 91, на основу члана 9. Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010 – исправка и 14/2016) и члана 136. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), поступајући по захтеву II Бр. 953-18703/17-8 Јавног предузећа „Путеви Србије“ из Београда, Булевар краља Александра 282, за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IB реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница – Свође, дана 10. 10. 2017. године под 03 бр. 020-2195/3 доноси

### РЕШЕЊЕ

- I. Предметно подручје (деоница пута) се не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите, нити у обухвату простора еколошке мреже. Сходно томе, издају се следећи услови заштите природе:
  - 1) Пројектом Појачаног одржавања деонице државног пута IB реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница – Свође предвидети таква решења и мере који ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода у непосредном окружењу (посебно реке Лужнице и њених притока).
  - 2) При извођењу радова на траси пута, која је непосредно уз реку Лужницу, предвидети максимално очување корита, обала и приобалне вегетације.
  - 3) Предвидети противерозивне мере због заштите од клизишта, одрона и сл. При томе пожељна је већа примена биолошких и биотехничких мера, у комбинацији са одговарајућим техничким мерама, до нивоа функционалне стабилизације терена.
  - 4) Дефинисати да се одводњавање саобраћајнице врши гравитационим отицањем површинских вода и по потреби изградњом отворених канала за прихват површинских вода.
  - 5) За воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима мора се предвидети изградња таложника и сепаратора масти и уља. Пре упуштања у реципијент или канализацију, обавезна је контрола њиховог квалитета.
  - 6) Као коловозни застор користити материјале који могу, са аспекта заштите, обезбедити смањење нивоа буке и вибрација и омогућити ефикасно дренажање воде са површине коловоза.
  - 7) Предметне радове на траси пута изводити само у току периода дана због могућег негативног утицаја буке од грађевинских машина и возила на животињски свет, чија су станишта у непосредном окружењу.
  - 8) При извођењу радова строго се придржавати трасе и коридора пута како се при манипулацији возилима и машинама не би оставиле последице на шири простор. Такође, користити постојећу путну мрежу без изградње нових путева, у циљу спречавања фрагментације простора и постојећих станишта.
  - 9) Током извођења радова дуж целе трасе одржавати максимални ниво комуналне хигијене.

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

### Образложење

Завод за заштиту природе Србије примио је дана 11.09.2017. године захтев бр. 020-2195/1 Јавног предузећа „Путеви Србије“ из Београда за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута 1Б реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница – Свође.

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

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

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

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

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

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

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

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

ДИРЕКТОР  
Александар Драгишић



Достављено:  
- Подносиоцу захтева  
- Архиви х 2

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

ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ СРБИЈЕ  
Број: 953-13044/18-1  
Датум: 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: 953-13044 од 08.06.2018. године ЛП „Путеви Србије“ из Београда, Бул. Краља Александра 282, за исправљање грешке у Решењу 03 бр. 020-2195/3 од 09.10.2017. године, дана 11.06. 2018. године под 03 бр. 020-1547/2 доноси

### РЕШЕЊЕ

- У Решењу 03 бр. 020-2195/3 од 09.10.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IB реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница – Свође, исправља се грешка, и то:
  - тачка 1. подтачка 5) 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 Лужнице 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).“
- У свему осталом предметно Решење остаје непромењено.
- 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. 020-1547/1 ЛП „Путеви Србије“ из Београда за исправљање грешке у Решењу Завода 03 бр. 020-2195/3 од 09.10.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IB реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница – Свође. У току писања наведеног решења у тачки 1. подтачка 5) 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 Брадишић



Достављено:  
- Подносиоцу захтева  
- Архива x 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](mailto:kontakt@zzsknis.rs)

Број: 1105/2

Датум: 14.09.2017.

ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ НИШ  
12 555-20631  
05-10-2017

Завод за заштиту споменика културе Ниш, на основу чл. 104 "Закона о културним добрима" (Сл. гласник РС бр. 71/94) и чл. 104 "Закона о општем управном поступку" (Сл. гласник РС бр. 18/16) а у вези са чл. 100 "Закона о културним добрима" (Сл. гласник РС бр. 71/94), решавајући по захтеву ЈП "Путеви Србије" 11050 Београд, Сектор за инвестиције, Београд, Влајковићева 19а, доноси

### РЕШЕЊЕ

**О утврђивању услова за предузимање мера техничке заштите за израду техничке документације пројекта *Појачаног одржавања деонице државног пута 1Б реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница - Свође***

I Мере техничке заштите: израда техничке документације пројекта *Појачаног одржавања деонице државног пута 1Б реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница - Свође*, може се предузети уз неизоставно поштовање следећих услова:

1. Подносилац захтева је дужан да обезбеди све услове и омогући неометано и константно праћење радова, за све време трајања радова од стране археолошке екипе – археолошки надзор;
2. Подносилац захтева је дужан да благовремено, односно најкасније у року од 8 дана пре почетка радова, о томе званично обавести овај Завод;
3. Ако се у току извођења радова наиђе на археолошке и/или историјске локалитете или археолошке предмете, односно предмете из прошлости, извођач радова је дужан да одмах, без одлагања на том месту обустави радове и обавести надлежни Завод за заштиту споменика културе Ниш и да предузме мере да се налаз не уништи и не оштети и да се сачува на месту и у положају у коме је откривен, као и да обезбеди услове за заштитна археолошка истраживања;
4. У случају да се радови обављају на површини на којој се налази археолошки или историјски локалитет чије постојање до сада није регистровано, подносилац захтева је дужан да обезбеди средства за археолошка истраживања, заштиту, чување, публикавање и презентацију истог, а што ће се регулисати посебним уговором између Подносиоца захтева и Завода.

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

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

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

V Ово Решење важи годину дана.

VI Жалба на Решење не одлаже извршење.

### Образложење

ЈП "Путеви Србије" 11050 Београд Булевар краља Александра 282, Сектор за инвестиције, Београд, Влајковићева 19а, поднело је захтев наш бр. 1105/1 од 11.09.2017. године за добијање услова за израду техничке документације пројекта *Појачаног одржавања деонице државног пута 1Б реда бр. 39 (стара ознака: магистрални пут М-9), деоница Бабушница - Свође.*

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

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

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

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

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



Доставити:

- Подносиоцу захтева
- Документацији

**APPENDIX 6 FINAL ENVIRONMENTAL APPROVAL**



Република Србија  
МИНИСТАРСТВО ЗАШТИТЕ  
ЖИВОТНЕ СРЕДИНЕ  
Број: 011-00-00196/2018-03  
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 IV реда бр. 39 (стара ознака М-9), ЛОТ 3, деоница Бабушница - Свође; L=19,519 км, заведен под бројем 011-00-00196/2018-03 од 07.03.2018.

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 део попречне саобраћајне везе кроз југоисточни део Србије.

Радовима ссе предвиђа ојачање постојеће коловозне конструкције у постојећим габаритима и постојећим санираним системом одводњавања, уз посебно дефинисање режима рада у зони водозахвата Љуберађа-Ниш.

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. 020-2195/3 од 09.10.2017. које је издао Завод за заштиту природе Србије;

- Решење бр. 1105/2 од 14.09.2017. које је издао Завод за заштиту споменика културе Ниш;
- Пуномоћје бр. 953-3673 од 12.02.2018. за групу пројектаната: 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 оштећења на путевима не налази се на прописаним Листама и, сагласно томе, *посилац 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).



**Доставити:**

- ✓ -наслову
- PROJEKAT BIRO UTIBER doo,
- 211 000 Нови Сад, Војводе Мишића 2
- архиви