PUBLIC ENTERPRISE
ROADS OF SERBIA

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ENVIRONMENTAL MANAGEMENT PLAN

for

Urgent maintenance and remedy of damages on State Road IB Class, No. 26
Beograd - Sabac - Mali Zvornik

section: Banja Koviljaca - Mali Zvornik
km 0 + 000 to km 14 + 150
L = 14.150 km

- Environmental Category B -

BELGRADE, August 2015, Draft Document

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ABBREVIATIONS AND ACRONYMS

AADT	Annual Average Daily Traffic
CEP	Contractor's Environmental Plan
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMP	Environmental Management Plan
HSE	Health, Safety and Environment
IFIs	International Financing Institutions
INP	Institute for Nature Protection of the Republic of Serbia
IPCM	Institute for Protection of Cultural Monuments of the Republic of Serbia
MoAEP	Ministry of Agriculture and Environmental Protection
MoT	Ministry of Transport (fmr. Ministry of Infrastructure and Energy – MoIE)
PERS	Public Enterprise "Roads of Serbia"
PSC	Project Supervision Consultant
RE	Resident Engineer
RRSP	Road Rehabilitation and Safety Project
SE	Site Engineer
SLMP	Safety Labour Management Plan
SSIP	Site Specific Implementation Plan
WB	The World Bank Group
WMP	Waste Management Plan

INTRODUCTION

This Environmental Management Plan (EMP) has been prepared for the proposed rehabilitation of the State Road of the IB class, No. 26 Beograd - Sabac - Mali Zvornik, Section: Banja Koviljaca - Mali Zvornik, to ensure application of the good environmental practice and document compliance with the requirements of the International Financing Institutions which will finance Serbian Road Rehabilitation and Safety Project. This road section is 14.150 km long. The Project has been classified as Environmental Category B. i.e., a project requiring an EMP pursuant to WB, EBRD and EIB Safeguard Policies.

The Project Proponent is the Government of Serbia, acting through its Ministry of Transport (MoT). Project implementing entity is Public Enterprise Roads of Serbia (PERS).

The aim of the environmental management plan is to highlight the negative environmental impacts and management problems during the construction works execution, as well as the necessary mitigation measures that the Contractor must apply. The key components of the Environmental Management Plan are: Plan for the mitigation of adverse impacts on the environment and Plan for monitoring the impact on the environment.

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

For the proposed section, Environmental Management Plan focuses on the urgent maintenance and remedy of damages phase and is part of the signed contract with the Contractor. The activities related to subsequent regular maintenance of this section are not the main focus of this EMP, but are presented herewith for the purpose of completeness.

The preparation of this EMP was undertaken through a desk study and field investigations, including consultations with regional level representatives and local stakeholders. The EMP is based primarily on field investigations performed during April and May 2015.

EXECUTIVE SUMMARY

Project description

This Environmental Management Plan (EMP) has been prepared for urgent road maintenance of the State Road of the IB category no. 26, Belgrade - Sabac - Mali Zvornik, section: B. Koviljaca - Mali Zvornik, to ensure application of the good environmental practice and document compliance with the requirements of the International Financing Institutions (IFIs) which will finance Serbian Road Rehabilitation and Safety Project (RRSP). This road section is 14.150 km long. The Project has been classified as Environmental Category B. i.e. a project requiring an EMP pursuant to IFIs Safeguard Policies.

The stated section Banja Koviljaca - Mali Zvornik is located at the road Beograd - Sabac - Mali Zvornik. According to the reference system, it is defined as a line between the nodes 0126 B.Koviljaca, 0125 Radalj and 0124 Mali Zvornik. The section starts in the node Banja Koviljaca (the design includes the intersection in this node), and finishes in the node Mali Zvornik.

The considered section is located on the edge of west Serbia, Macva district. It occupies the territory of the municipalities Loznica and Mali Zvornik.

The settlements located near the considered section are: Banja Koviljaca, Gornja Koviljaca (municipality Loznica), Brasina, Donja Borina, Radalj, Mali Zvornik (municipality M. Zvornik).

Along whole alignment, there is a railway Sabac - Zvornik. At this section there are two intersections with the railway (settlements Gornja Koviljaca and Brasina).

The economic basis of the municipalities Loznica and Mali Zvornik consists of a smaller number of industrial capacities and it is based on the usage of local natural resources. The most promising economic branch in the municipalities is tourism.

The industry of this region is based on electricity production, processing of stone and wood. Installations which are located in the area related to the considered road section which might contribute to a cumulative impact on the environment are the working units of the Company for the production of building materials "Ravnaja" JSC Mali Zvornik and RJ lime factory and RJ quarry.

The TOR states the width of existing cross section of road is in limits 6.0 m to 6.5 m. It also defines the design solution of the pavement which must be within the limits of the existing pavement.

During the determination of the axis of the road, the designer has been forming the axis which as much as possible corresponds to the existing status. The existing status should not be changed. The geometric elements of the alignment of the road should be integrated with each other and comply with the regulations. Bearing in mind the width of the road, the geometrical elements are specific to the design speed of 40 km/h.

By the design, the resettlement of population and occupation of areas is not planned, as defined by OP 4.12, as well as the long-term disruption of the natural environment, housing projects and activities.

Policy, legal and administrative framework

Ministry of Agriculture and Environmental Protection is the key institution in Serbia

responsible for formulation and implementation of environmental policy matters.

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

In the Republic of Serbia, the Environmental Impact Assessment procedure is regulated by the Law on Environmental Impact Assessment, which is completely in line with European EIA Directive - 85/337/EEC. Therefore Environmental Impact Assessment is not required for road rehabilitation projects unless theirs alignment is placed within or in the vicinity of natural/cultural protected areas.

Based on the decision of the Institute for Nature Conservation of Serbia, Section Banja Koviljaca - Mali Zvornik is not located within the protected area, which was implemented or initiated the process of protection for, based on the Nature Protection Act ("Off. Gazette of RS" no. 36/09, 88/10 and 91/10 - correction). By the decision of the Institute for Protection of Cultural Monuments "Valjevo", on the alignment of the state road IB category No.26, Section Banja Koviljaca - Mali Zvornik from km 0 + 000 to km 14 + 150.00, there are seven (7) archaeological sites. From the standpoint of protection of immovable cultural property, it has been given the permission to execute the works of the mentioned design in compliance with the terms of conservation, maintenance and usage (Appendix V - Condition and approvals and the necessary documentations from the relevant public institutions).

Therefore, EIA is not required for this project in accordance with the Serbian regulations.

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

1. Operational Policy OP 4.01 Environmental Assessment;
2. EBRD Environmental and Social Policy 2008;
3. EIB Statement of Environmental and Social Principles and Standards (2008).

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

Baseline conditions assessed during route survey

The Institute for Protection of Cultural Monuments "Valjevo", based on the requirements of The Highway Institute JSC Belgrade, issued the Decision of the conditions of storage, maintenance and operation of the design of urgent maintenance and elimination of the damage to the state road IB category no. 26, Section Banja Koviljaca - Mali Zvornik, from km 0 + 000 to km 14 + 150.00. Upon the completion of an examination of the official records of the Institute, the study of the literature, and the terrain visit, it has been determined that there are archaeological sites. In the area of this section, for the protection of immovable cultural property, all works on the urgent maintenance and elimination of damages are allowed. The terms of conservation, maintenance and usage of the archaeological sites, by item 2 of the operative part of this Decision, point to the obligation which is arising from the Law on Cultural Property ("Off. Gazette of RS" no.71 / 94, Article 109 and 110).

Also, the Institute for Nature Protection of the Republic of Serbia, based on the requirements of The Highway Institute JSC Belgrade, issued a decision by which it confirmed that the relevant area of the section is not located within the protected area, which has been implemented or initiated the process of protection for.

In Terms published by the Institute for Protection of Cultural Monuments "Valjevo"

(the number of the decision 242/1) the archaeological sites are listed, as well as the monuments and registered goods that are nearby, and according to the protection of immovable cultural property, it is allowed to perform maintenance works and elimination of the damages at the state road. It is given the position of archaeological sites, monuments of culture and registered sites (Chapter 3. Baseline conditions assessed during route survey, Photos 1 – 5) with their location, position in relation to the road in the direction of the growth of chainage and distance from the road. The closest facility is at the approximate distance of 22 m from the road, so that the works on the urgent maintenance and remedy of the damages will not affect the archaeological sites, monuments and recorded goods.

During the project there will be no expropriation of land.

Current traffic load (AADT) on section B. Koviljaca - Mali Zvornik is 2 754 vehicles/day, according to the Public Enterprise "Roads of Serbia" on traffic counts in 2012.

Start of the section is in the village of Banja Koviljaca, and end in the settlement of Mali Zvornik. The settlements located near the considered section are: Gornja Koviljaca, Brasina, Donja Borina and Radalj. Parallel to the road, meanders the river Drina.

The drainage is provided in both directions, transverse (to the gutters, through the shoulders to sewers or along the slopes of the embankment) and longitudinal (up the gutters and drainage channels to culverts). In this sector it has been recorded 8 culverts.

In places where it was necessary, the new tubular culverts Ø 1000 were designed, mainly in the areas of concave fractures, where it is necessary to drain the residual water in chutes and canals from riparian side of the road through the pavement towards the river. In total, 3 new tubular culverts are planned. Most of the existing culverts are in good condition. In two cases, the correction of input heads is planned. Others only need the cleaning of sediments.

However, of projected traffic and the expected amount of drained water the impact on water quality in Borinska, Veoca, and Radaljska Rivers and Drina River - class II (Hydrological yearbook for 2013 - Republic Hydrometeorological Service of Serbia) is expected to be minimal to negligible.

The existing sources of air pollution have been identified. These are existing roads as linear sources of air pollution (IB class No.26). Industrial facilities in the project area are also certain air pollutants.

The dominant source of noise in the observed area is the current road as a linear source of noise.

Summary of environmental impacts

The possible temporary impacts as consequence of the construction activities will consist of, among others, disruption of current traffic circulation, roadway safety, damage to access roads, dust nuisance, and gaseous emissions, potential pollution of soils and water resources, brief disturbance to biota, and temporary interference to neighbouring settlements through various operation activities. Off-site activities include quarry, burrow pit and asphalt plant operations, which if not managed properly, may cause localized adverse impacts. The Contractor’s yard and workers’ camp can be potential sources of temporary adverse impacts.

No relocation and resettlement issues as defined by OP 4.12 are anticipated.

When it comes to exploitation, it is not expected the increase of road traffic as a result of urgent maintenance and remedy of damage. The impact of a potential increase in the speed of vehicles on the observed section is solved in the context of the analysis of traffic safety, which is an integral part of the project and that includes the implementation of active and passive measures to control the speed of vehicles on the observed section.

During works on urgent maintenance and remedy of damage of road, the local population in Banja Koviljaca, Gornja Koviljaca, Brasina, Donja Borina, Radalj and Mali Zvornik, will be exposed to the effects of air pollution and increased noise levels.

During the works execution on urgent maintenance and remedy of the damage of the road, as well as during the usage, different cases of water pollution are possible. Wastewater discharged during the works can jeopardize the quality of the surface and underground water. Adequate mitigation measures and monitoring activities are planned, in accordance with the Law on water ("Official Gazette of RS", 54/96, 101/05). As for the potential pollution during operation, these are limited to accidents only. In such a case, procedures for action in incidental situations, as defined by the Ministry of Interior and in the Water Law, will apply.

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

Environmental management plan

Possible environmental impacts will be mitigated during the design/pre-rehabilitation, rehabilitation, and operation Phases, as summarized in the Environmental Management Plan as shown in Appendix I.

A basic assessment of the proposed road rehabilitation project concluded that the rehabilitation impacts will be minor, reversible and manageable if the mitigation measures as given in the EMP are properly implemented. The EMP consist 3 parts: Mitigation Plan (Appendix I), Monitoring Plan (Appendix II) and institutional arrangements and reporting procedures.

During the urgent maintenance and remedy of damages on the state road, the Contractor will work according to the requirements of the Contractor‘s Environmental Plan (CEP) (based on the EMP) which has been prepared by the Contractor. Following the award of the contract and before commencing the work, the Contractor will prepare a Contractor‘s Environmental Plan (CEP) that addresses the conditions of the rehabilitation in the EMP that has been attached to the Bid and Contract Documents. The CEP will amplify how the Contractor will address the activities in the rehabilitation section of the EMP. The contractor will submit the CEP to the PERS for approval.

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

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

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

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

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

Stakeholder engagement - Information disclosure, consultations and public participation

Based on the safeguard measures of international financial institutions, in the preparation of an Environmental Management Plan there will be public discussions.

Summary of public inspection (public consultation)

Environmental Management Plan will be presented to the public.

1. PROJECT DESCRIPTION

The Republic of Serbia has applied for financing The road rehabilitation design by the World Bank, the European Investment Bank and the European Bank for Reconstruction and Development. A part of the funding is directed to urgent maintenance and repair of damage on the state road IB category No. 26, Belgrade - Sabac - Mali Zvornik, section: B. Koviljaca - Mali Zvornik, from km 0 + 000 to km 14 + 150, length of 14.150 km. The stated design is a part of the urgent unforeseen works within the design of the road rehabilitation which is necessary for the purpose of rehabilitation and repair of damage caused by severe floods in May 2014.

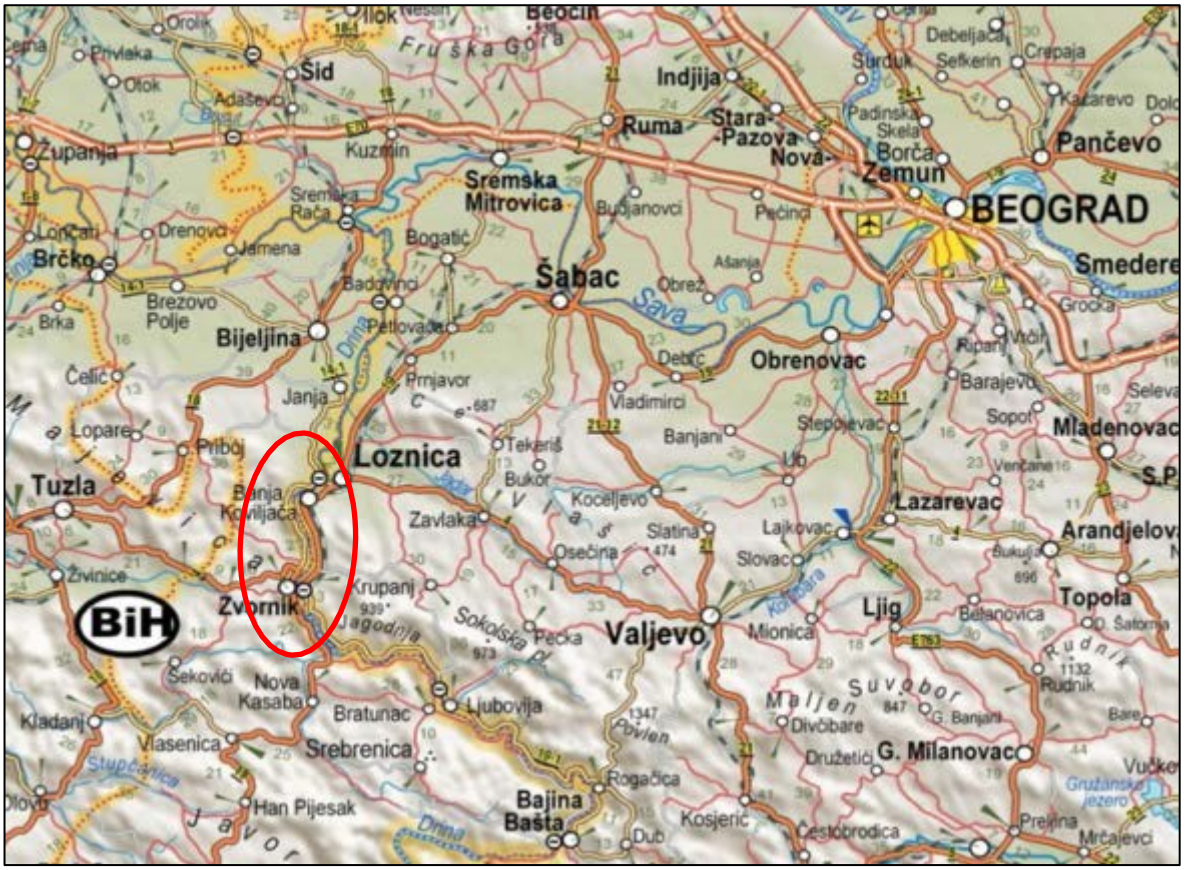
Location Description

The proposed section extends through western Serbia, Macva district, on the border with Bosnia and Herzegovina. Passes through the municipalities of Loznica and M. Zvornik. The road alignment is along the whole length guided along the right bank of the Drina River. Topography has characteristics of gorge type of terrain with narrow, winding river Drina valley, with steep slopes intersected by numerous side ravines. The area of alluvial plains along the Drina has a width of several tens of meters to a few kilometres. In accordance with the character of the terrain, the road is mostly full notch, with numerous supporting structures and drainage structures.

According to the old classification, this section belonged to the main road IB category no. 21 (M - 4), and according to the new classification, it belongs to the

state road IB category no. 26. Home chainage is at km 0 + 000 (Banja Koviljaca), and the final chainage at km 14 + 150 (Mali Zvornik).

Picture 1. Location of Banja Koviljaca - Mali Zvornik road section



The mentioned section Banja Koviljaca - Mali Zvornik is divided into two sub - sections:

- First sub - section (priority no. 4) from km 0+000.00 to km 9+700.00,
- Second sub - section (priority no. 1) from km 9+700.00 to km 14+150.00.

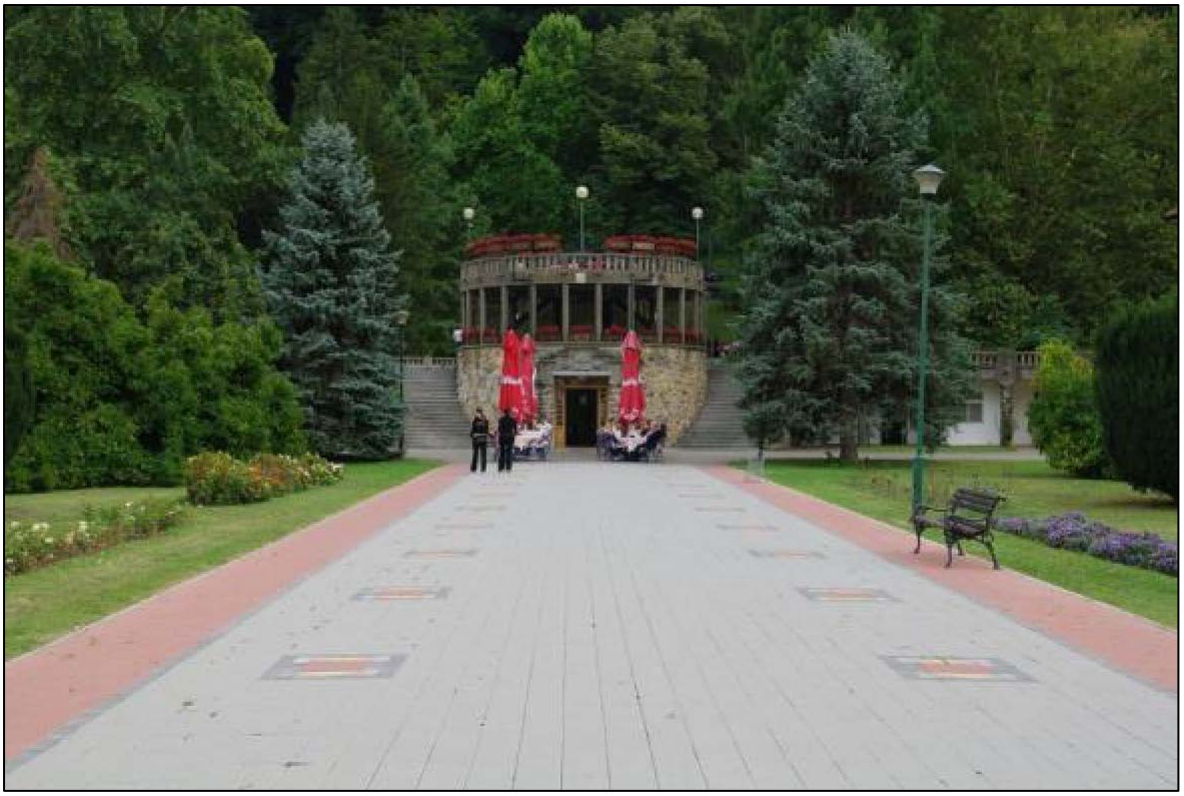
The settlements which are located along the monitored section are: Banja Koviljaca, Gornja Koviljaca (Loznica municipality) Brasina, Donja Borina, Radalj, Mali Zvornik (municipality of Mali Zvornik).

Banja Koviljaca is a town of Loznica, at 128 meters above sea level, at the foot of the mountain Gucevo and on the right bank of the Drina River.

The railway that connects Ruma (which is located on Corridor X) across Sabac, Loznica and Zvornik overpasses Drina River, connects Serbia with Bosnia and Herzegovina. The railway has recently been used almost exclusively for the transport of goods and raw materials (for factory Zorka Sabac) and the transport of passengers is almost negligible.

Picture 2. Overview map sections of Banja Koviljaca - Mali Zvornik from km 0 + 000 to km 14 + 150, from km 0 + 000 to km 14 + 150, on the state road IB Class no. 26 Beograd - Sabac - Mali Zvornik

Picture 3. Citadel - Banja Koviljaca



Picture 4. King Petar I Karadjordjevic Bathroom - Banja Koviljaca

Gornja Koviljaca is crop - cattle rural settlement of scattered type, on the right bank of Drina River.

Brasina is a type of a shattered village, situated at the foot of the Crni vrh on mountain Gucevo. The village is intersected by: Brasina River and streams Vilin and Eminov. Excavations testify that this is an old mining town.

Donja Borina the crop - cattle rural village of compacted (road) type on the right bank of Drina River. People from this region do lime baking and selling wood.

Picture 5. In front of the Tronosa monastery there are the chapel of St. Panteleimon and fountain 9 Jugovic in Banja Koviljaca.

The end of the section is in the middle part of Drina river valley on the right bank of the river, in the village of Mali Zvornik, the smallest municipality in Macva district. Mali Zvornik municipality has 14,076 inhabitants, according to the 2002 census, according to preliminary results of the census 2011 Mali Zvornik municipality has 13 205 inhabitants.

The entire municipality of Mali Zvornik is located at 150 to 856 meters above sea level. The maximum altitude of the municipality is Crni vrh. The climate is temperate continental. On the western side of the municipality is bordered by the Drina River, and from the other sides by the mountain ranges.

Corridor of the observed section is passing through the alluvial valley of the Drina River, which is a large and important rivers of the wider region. In addition to the Drina River, there is a larger number of smaller rivers and streams: the Jadar River and the Stira River flowing into the Drina River, and their tributaries: Brezovica,

Rakovica, Stupnica, Korenita. All watercourses belonging to the Drina and their characteristics belong to the smaller watercourses of torrential type. The tributaries of the Drina River are very interesting for the construction of small ponds for trout farming.

The observed section is entirely parallel to the Drina River, and cuts watercourses Gavrin Potok stream, Veoca, Borinska and Radalj Rivers.

On the section B. Koviljaca - Mali Zvornik there are 7 bridges. In photos below some of the bridges over the watercourses are shown.

Picture 6. Bridge over the stream Gavrin Potok ~ km 5 + 940

Picture 7. Bridge over theVeoca River ~ km 6 + 800

Picture 8. Bridge over the Borinska River ~ km 9 + 130

Picture 9. Bridge over the Radaljska River ~ km 12 + 265

The industries represented on the stretch of the observed section were certainly caused by raw material base (forests, non-metallic raw materials) and good traffic situation. These are primarily the production of lumber, building materials (stone, lime), cutting and shaping of stone, manufacturing of metal products and food. More intensive development of the industry began with the commissioning of the hydroelectric power plant.

Picture 10. Hydroelectric power plant "Zvornik“

Hydroelectric power plant „Zvornik" was built as the last step of the middle course of the Drina River at 93 kilometres from the confluence of the Drina and Sava Rivers. Construction of thefirst hydropower plants on the Drina began in 1948. Raising the dam on the Drina River near Zvornik created an artificial lake 25 km long. The dam is a concrete gravity type, 42 meters high and the length of the crown is 166.50 meters. Hydroelectric power plant during the summer produces 10 MWh of electricity and that production supplies with electricity the entire area of Mali Zvornik and Loznica. In the period of high water, the production is up to 96 - 100 MWh.

Installations which are located in the area in which it could contribute to a cumulative impact to the environment, characterized by three industry: food manufacturing, metal production and processing of wood and stone.

Picture 11. Orthophoto image quarries in the vicinity of the motorway at Mali Zvornik

Picture 12. Panorama - Zvornik (left) and Mali Zvornik (right)

Drainage of precipitation is solved by the free swelling over a shoulder down the slope of the embankment, from the uphill side of longitudinal chutes and drainage ditches and cross culverts under the pavement. At the concerned section 8 culverts are recorded. In places where it was necessary, the new tubular culverts Ø 1000, mainly in the areas of concave fracture where it is necessary to drain the

residual water in chutes and canals from riparian side of the road through the pavement towards the river. In total, 3 new tubular culverts are planned.

The existing situation of drainage system requires the repair of input heads in two cases, while other culverts need only the cleaning of sediments. As far as the possible pollution during exploitation concerning, they are limited to accidents. In this case, as defined by the Ministry of Internal Affairs and in the Water Act, subjects to procedures for the operation of emergency.

Rehabilitation works description

By TOR it is determined by the solution of pavement which must be within the width of the existing pavement. It is suggested that all interventions on urgent maintenance of the section should be in the framework of the road zone.

The newly designed road in situational and longitudinal monitoring is following the existing conditions. The major works include removal of the existing pavement, construction of new asphalt layers, construction of shoulders by using gabions, cleaning of the existing culverts, construction of new bus stops and connections to categorized and uncategorized local roads and construction of individual household connections. The works also include the restoration of bridges in terms of removing excess layers and repairing of concrete and reinforcement as needed, as well as regulation of the BorinskaRiver Veoca and Radaljska River in the area of the bridges.

The project does not require the relocation of the local population, the new occupation of areas, as well as long - term disruption of the natural environment, settlements and activities of local residents.

2. POLICY, LEGAL AND FRAMEWORK Relevant

Institutions

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

The other aspects of environmental management related to road rehabilitation projects are dealt with several other institutions, among which are the Institute for Nature Protection of Serbia (INP) and the Institute for Protection of Cultural Monuments of the Republic of Serbia (IPCM), and the Public Enterprise "Putevi Srbije" (PERS).

Existing Serbian legislation

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

EIA procedure in the Republic of Serbia

In the juridical system of the Republic of Serbia, the Environmental Impact

Assessment procedure is regulated by the Law on Environmental Impact Assessment, which is completely in line with European EIA Directive - 85/337/EEC. Therefore Environmental Impact Assessment is not required for road rehabilitation projects unless theirs alignment is placed within or in the vicinity of natural/cultural protected areas. In that case Project proponent is obliged to submit Request for Decision-making on the necessity of preparation of the Environmental Impact Assessment to the MoAEP. Depending on assessment of significance of potential environmental impacts of project it could be decided that it is necessary to implement full EIA procedure for that kind of projects.

Based on the above mentioned criteria, this project does not require elaboration of the assessment of environmental impact.

Relevant IFIs Policies and Statements

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

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

EBRD and EIB will require that the project complies with the Republic of Serbia national laws and EU standards. WB will require that the projects comply with the Serbian legislation and the Bank's OP 4.01.

As a conclusion, it could be stated that GoS regulations do not require separate section-specific EMP to be undertaken for this type of investments (road rehabilitation), while the WB policy requires partial EIA assessment and preparation of site-specific EMP for each section.

3. BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY

Section B. Koviljaca - M.Zvornik with length of 14.150 km of national road IB category no. 26, Belgrade - Sabac - Mali Zvornik, belongs to western Serbia, Macva district. Passes through the territory of Loznica and Mali Zvornik.

The study of road was carried out by The Highway Institute JSC Belgrade several times during 2015, as part of project activities. The Highway Institute JSC Belgrade made a detailed assessment of the situation on the section of Banja Koviljaca - Mali Zvornik in March and April 2015.

Natural resources and cultural heritage

Directly on the alignment of the road B. Koviljaca – M. Zvornik there are no protected natural or cultural resources, which could be compromised during the urgent maintenance and elimination of damages at the road. In Terms published by the Institute for Protection of Cultural Monuments "Valjevo" (the number of the decision 242/1) the archaeological sites are listed, as well as the monuments and registered goods that are nearby, and according to the protection of immovable

cultural property, it is allowed to perform maintenance works and elimination of the damages at the state road. In the photos that follow afterwards, it is given the position of archaeological sites, monuments of culture and registered sites with their location, position in relation to the road in the direction of the growth of chainage and distance from the road. The closest facility is at the approximate distance of 22 m from the road, so that the works on the urgent maintenance and remedy of the damages will not affect the archaeological sites, monuments and recorded goods.

On the alignment of the road and in the immediate vicinity of the national road B. Koviljaca - M. Zvornik, includes the following archaeological sites (the Photos which are provided in this EMP are of those archaeological sites which do possess the coordinates x and y in the Terms published by the Institute for Protection of Cultural Monuments "Valjevo"):

Photo 1. Identification number 1023 - Crkvina, Banja Koviljaca, cemetery

Photo 2. Identification number 251 - Osiste, Brasina, rural settlements

Photo 3. Identification number 500 - Most, Brasina, cemetery

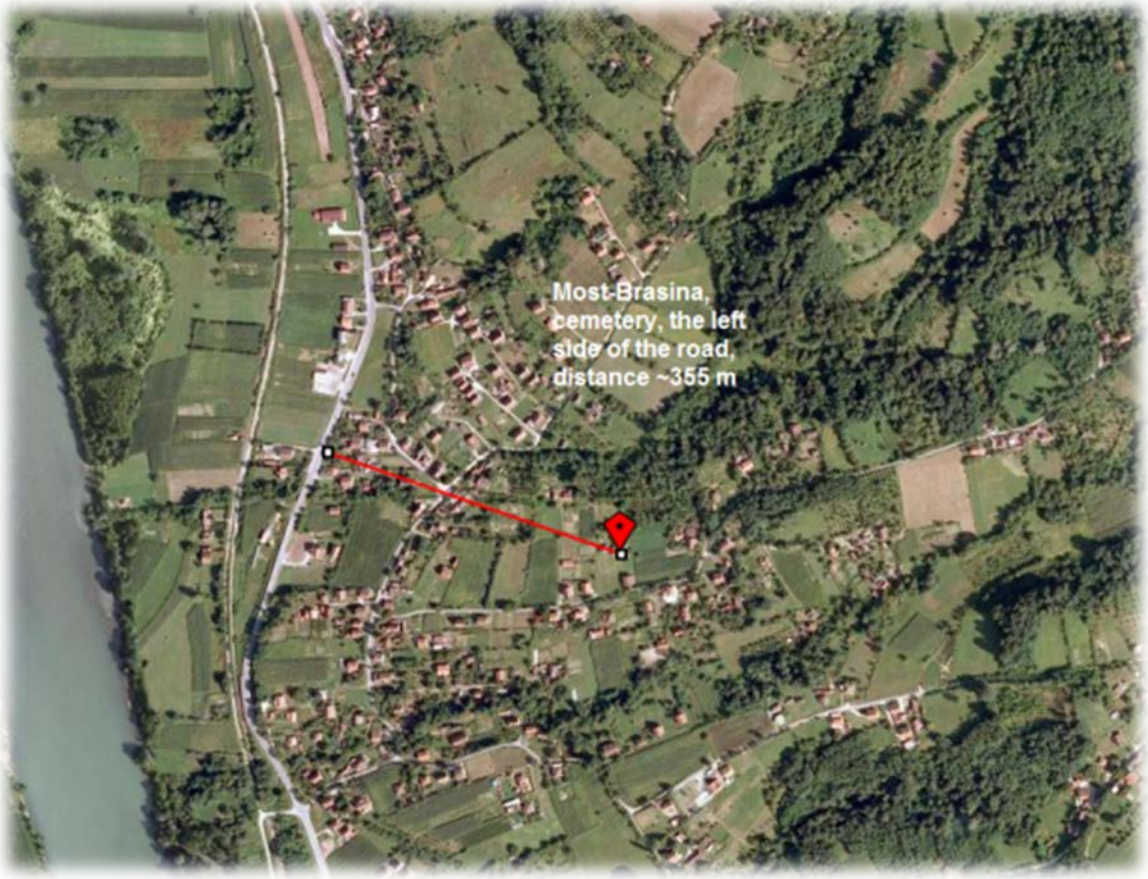


Photo 4. Identification number 502 - Roman cemetery, Brasina

Photo 5. Identification number 252 - Pecina – Roman cemetery, Radalj

There will be no land acquisition during the project implementation.

Settlements

Start of the section is at the entrance of Banja Koviljaca, and the end at the hydropower plant Zvornik. Along the section there are the following towns: Banja Koviljaca, Gornja Koviljaca, Donja Borina (Loznica municipality) Brasina, Radalj, Mali Zvornik (municipality of Mali Zvornik).

Watercourses

Corridor of the observed section is extremely rich in watercourses, except of the Drina River, there is a larger number of smaller rivers and streams: BabinPotok, Gavrin Potok, Borinska River and Radaljska River. The dense network of streams and rivers that belong to Drina make this area very disjointed. Drina river basin is the richest in water, and is characterized by a strong flow extremes. Downstream from the Zvornik accumulation nature of Drina River is changing, it becomes a lowland river, but with greater width and fast flow of water whose water level changes frequently to the rhythm of the HPP "Zvornik".

The section is completely parallel to the Drina River.

On the entire section of B. Koviljaca to M. Zvornik road route bridging watercourses Gavrin Potok stream, Veoca, Borinska and Radaljska Rivers(Pictures 6, 7, 8 and 9).

According to the national classification and categorization of watercourses, Drina River belongs to the second class quality (Hydrological yearbook for 2013 - RHMZ),which means that on the basis of the limit values of the quality elements provides conditions for the functioning of ecosystems, life and protection of fish and can be used for drinking water supply with pre-treatment filtration and disinfection, swimming and recreation, irrigation and industrial use.

Due to the nature of works on the rehabilitation of the road, the watercourses will not be adversely affected, with the use of good construction practice.

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Picture 13. Fishing on the Drina River

The drainage of atmospheric water from pavement surfaces is provided in both directions, from the uphill side longitudinal by chutes and drainage ditches and transversal by culverts under the pavement to the recipient. Potential pollution during the exploitation phase is restricted to accidents. In this case, as defined by the Ministry of Internal Affairs and in the Water Act, it is subjected to procedures for the operation of emergency.

Air

Near the section Banja Koviljaca - Mali Zvornik there are point sources of air pollution such as: wood processing between Banja Koviljaca and Gornja Koviljaca near the respective section of the road, then a brickyard in southern exit of Brasina, as well as a quarry at the end of the section of state road No. IB. category No.26 near Mali Zvornik. It is up to the Contractor to decide whether to use this quarry in the design execution.

PERS will monitor all the works of the Contractor, including verification of possession of adequate work permission and licenses of the Subcontractors.

Industrial plants in the observed area may potentially be sources of increased level of concentration of pollutants in the air, when working at full capacity, or not appling the measures to reduce air pollution (introduction of wet separation in the technological process). Data of air pollution measurements at the observed corridor were not available.

Based on past experience and the expected traffic load, during and after the planned rehabilitation works, the increase of the current level of pollutants in the air is not expected.

Noise

In the observed area, the dominant noise is due to the traffic on the section of Banja Koviljaca - Mali Zvornik.

Based on experience and expected traffic load, the planned rehabilitation works and exploitation of road after rehabilitation on the concerned section will not lead to an increase in noise level.

4. SUMMARY OF ENVIRONMENTAL IMPACTS

The following table provides a summary of the Environmental Impacts that are predicted for the project.

impact	significance	comment
impacts on land use/ settlements,	low	There will be no land acquisition as defined by OP 4.01 during the project implementation
ground and surface water,	low	Due to low amount of drainage water that can be drained into Recipient, the consequential impact is minimal to negligible
air quality,	low	Temporary impact
flora and fauna (protected areas and species),	low	According to the recommendations laid down in the framework of the conditions obtained by the Institute for Nature Protection; No protected areas.
noise,	low	Temporary impact
access/crossing points of the main road and local roads,	low	The rehabilitation and widening works won't affect existing crossing points. No specific issues.
soil management,	low	With application of waste handling measures
waste,	low	Ensured through environmental

impact	significance	comment
		management - waste and wastewater management plan will be prepared and implemented
cumulative impacts etc.	medium/low	Temporary, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only

Road rehabilitation works on proposed Banja Koviljaca - Mali Zvornik section will have only minor impacts on the environment (environmental category B). Most of the impacts are of temporary character and they disappear after the road rehabilitation works are completed.

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

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

Summary of key impacts

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

Air and noise pollution within the residential areas

It is expected that local residents will be affected with air and noise pollution during rehabilitation works on proposed road section. Local Air quality may experience some moderate and temporary deterioration due to dust from the construction traffic and elevated levels of nitrogen oxide (NOx) and sulphur oxide (SOx) from construction equipment exhaust are the primary pollutants. The dust may settle on

vegetation, crops, structures and buildings, and may cause some degree of impact.

Noise caused by the rehabilitation works will be only a temporary impact. Relatively small traffic load on proposed road and non - presence of significant amount of residential buildings placed close to the road lead to the conclusion that noise barriers will not be implemented within this project.

Potential water contamination

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

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

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

Should spills occur in any part of the road, especially where the rivers is closest to the road, to mitigate the problem the Contractor should use absorbing materials, such as absorbent mats/fabrics, or sand and scrape off the contaminated soils and dispose them in approved facility, in accordance with the Law on water ("Official Gazette of RS", 54/96, 101/05).

Potential Cumulative impacts

During the exploratory field works and the production of the Environmental Management Plan, the particular attention was paid to the activities that can potentially lead to negative cumulative effects, and it was found that there are no such activities. Taking into account the climatic factors, ordinary activities after road rehabilitation will not lead into changes in air quality in terms of exceeding the permitted levels of pollutants for populated areas.

The modernization of the railway Loznica - Mali Zvornik and its significant exploitation, and its position related to the observed section of the road, there could be a cumulative effect of noise.

The pollutants emitted by traffic combined with emissions and dust from quarries that are located in the vicinity of the observed section may have a cumulative effect.

At the observed area, the potential sources of environmental pollution are rehabilitated road section, quarry and future railway. Proper application of the Environmental Management Plan would minimize any negative impact on people and the biotope, which could be associated with long-term negative cumulative effects. If the foreseen protection measures are conducted, the cumulative impact will be minimal.

5. ENVIRONMENTAL MANAGEMENT PLAN

Possible environmental impacts will be mitigated during the design/pre-rehabilitation, rehabilitation, and operation Phases, as summarized in the Environmental Management Plan.

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

A. MITIGATION PLAN

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

Contractor Management

Recommendations and proposed mitigation measures shown in Appendix I. Mitigation measures will be incorporated as part of the standard design and rehabilitation practices and as such their costs will be included in the rehabilitation cost. This will be refined during the detailed design stage.

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

EMP is a forming part of the Bid and Contract document. The contractor will use this document to cost his compliance with the EMP. It is the Contractor's obligation to cost the implementation of environmental mitigation measures in his overall cost. The Contractor will be required to provide a short statement that confirms that:

- the EMP conditions have been costed into the bid price,
- the Contractor has a qualified and experienced person on the Contractor‘s team who will be responsible for the environmental compliance requirements of the EMP,

- the Contractor and its sub-contractors will comply with Republic of Serbia national laws, EU standards and Lender requirements.

Design Phase

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

Site Organization Plan

The production of the construction site organization plan is the responsibility of the Contractor who is obliged to comply with it and treat it.

The respective section is not located within a protected area which is conducted or initiated the process of protection for. On the other hand, the dominant natural resource and ecological corridor of international importance, such as Drina river, flows in this area. Consequently, the Institute for Nature Protection of the Republic of Serbia issued the requirements relating to the organization of the site (Appendix V) which must be taken into account when making the Site Organization Plan.

Preparation of site and establishment of contractor‘s facilities: This applies to all of the Contractor‘s facilities, storage areas, workshops, labour camps (when needed), concrete batching areas, asphalt plant, etc. The location and development of the Contractors‘ facilities will be approved by the RE.

Taking into account the conditions of nature protection, legislation and environmental requirements when choosing a location and organization of the construction site, as well as during the construction works execution, must comply with the following:

1. Temporary storage locations required for construction and other material and equipment is needed to locate outside of the areas with tall vegetation and flood plain areas of the river Drina and to limit only to the duration of the works execution;
2. the size of contractor‘s facilities are limited to absolute minimum to reduce unnecessary clearing of vegetation;
3. Facilities of the Contractor should be surrounded by the adequate protective fence;
4. While executing the works, strictly observe the planned alignment and corridor around it, as the earthworks and the usage of machines would not leave consequences on the environment. Also use the existing road network without building new roads, in order to prevent the fragmentation of the existing habitats;
5. the sites are properly drained. Paved areas, including vehicle parking areas, workshops and fuel storage areas are to drain to an oil and water separator;
6. sanitary waste and grey waters are treated before release into surface water systems, in accordance with the Law on water (“Official Gazette of RS”, 101/05);
7. fuel storage areas are not located within 20 m of a water course. The contractor‘s facilities are to be contained within an adequate security fence;
8. Where fuel in excess of 5 000 litres is stored on site, it will be stored in sealed tanks on a concrete base that is bunded to hold 110 % of the tank capacity;
9. All workshops would be provided with oil and water separators;
10. The contractor must have trained personnel who are competent in fuel

handling procedures and for cleaning up accidental spills;

11. Restrict servicing of machinery and vehicles along the alignment of the road. In case of accidental spills of fuel, oils / lubricants and other harmful substances must be repaired and restore the surface to its original state.

12. All waste oil, oil and fuel filters will be collected and disposed of in secure landfill areas. At the closure of the site, all contaminated soil will be excavated, removed and replaced with fresh topsoil;

13. Provide temporary or permanent location (existing regulated utility facilities / landfills) for storage and disposal of rubble and other waste material in any state, and municipal waste generated during the construction. Restrict storage / disposal in coastal areas, as well as other smaller temporary watercourses, as well as on agricultural land;

14. Cleared material is to be piled into manageable sized heaps according to disposal or re-use requirements;

15. Prevention of soil erosion on construction site: The contractor will be responsible for ensuring that the erosion is contained by soil conservation protection methods.

16. Apply soil conservation protection methodology to susceptible areas to prevent / minimize storm water runoff carrying eroded materials off-site;

17. Avoid excavation and operating machinery in wet ground conditions;

18. In the construction phase it is necessary to take into account the populated places because of the potential impact of noise from construction equipment, allowed the works execution only during the day;

19. During the construction works execution along the whole alignment it should be maintained the maximum level of communal hygiene. Define the locations for installation of containers for temporary storage of waste;

20. Upon the completion of the works, it must be removed as soon as possible all the machinery, construction materials, containers, spare parts and other equipment;

21. Upon the completion of the works, it is required to cultivate the ground at all vulnerable areas using appropriate flora and the species which are biologically stable under the given climatic conditions, resistant to harmful effects (emissions) and compatible with the surrounding area and purpose; PERS is responsible for checking that the EMP and SLMP requirements are incorporated into the site organization, via the engaged consultant for supervision.

Rehabilitation Phase Mobilisation - Contractor EMP

During the rehabilitation, the Contractor will work according to the requirements of the Contractor‘s Environmental Plan (CEP) (based on the EMP) which has been prepared by the Contractor and approved by PERS. Supervision and monitoring of the CEP activities will be undertaken as follows:

- The contractor has the initial responsibility for preparing and implementing the CEP as per the works contract;
- The Resident Engineer (RE) will direct the Contractor with regard to compliance with the CEP;
- The PERS will carry out independent monitoring of the work and can issue Defect Notices to the RE who will transmit these to the Contractor;

- The contractor will have his own representative on site – the Site Engineer (SE) who will be responsible for implementing the contract and complying with the CEP.

Contractor prepares CEP: following the award of the contract and before commencing the work, the Contractor will prepare a Contractor‘s Environmental Plan (CEP) that addresses the conditions of the rehabilitation in the EMP that has been attached to the Bid and Contract Documents including measures to comply with national legalisation and Lender requirements. The CEP will detail how the Contractor will address the activities in the rehabilitation section of the EMP. The contractor will submit the CEP to the PERS for approval.

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

Works on urgent maintenance and remedy of damages

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

1. Preliminary works,
2. Rehabilitation works on the existing pavement,
3. Earth works,
4. Drainage,
5. Traffic signage systems.

Environmental management during the work on urgent maintenance and remedy of damages

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

- Layout of the work camp and details of the proposed measures to address adverse environmental impacts resulting from its installation. Description and layout of equipment maintenance areas and lubricant and fuel storage facilities including distance from water sources/bodies;
- Sewage and septage management plan for provision of sanitary latrines and proper sewage collection and disposal system to prevent pollution of watercourses;
- A plan (mechanism and organizational structure) detailing the means by which local people and other project affected persons (PAP) can raise grievances arising from the rehabilitation process and how these will be addressed (e.g., through dialogues, consultations, etc.) (see Appendix 4 for the Project grievance mechanism);

- Soil Management Plan detailing measures to be undertaken to minimize effects of wind and water erosion on stockpiles, measures to minimize loss of fertility of topsoil, timeframes, haul routes and disposal site;
- Dust management plan which shall include schedule for water spraying on access road and in nearby settlements along the project road, as well as list of equipment to be used; This applies to all of construction sites and haul roads. During rehabilitation, when dust may be generated, the Contractor will monitor the worksite conditions and apply dust control measures, which include reducing construction traffic movements and spraying water on exposed areas;
- A plan indicating the location of the proposed material extraction site as well as rehabilitation measures to be implemented for the borrow areas and access roads upon project completion;
- Waste and wastewater management plan. Disposal of waste materials: All construction waste materials including drums, lumber, sand and gravel, cement bags etc. are to be suitably disposed of. If these cannot be recovered for scrap value these materials should be taken to an approved landfill sites for safe disposal. Hazardous waste will be stored and removed from the construction site on demobilization, in accordance with the Law on Waste management ("Official Gazette of RS", 36/09) The Contractor's SSIP should cover all aspects of waste management, including implementation of practice standards such as reduce, re-use and recycle. It should specify final disposal alignments for all waste and demonstrate compliance to national legislation and best practice procedures on waste management. The Waste Management Plan will, as a minimum, include details of temporary waste storage, waste transfer and pre-treatment prior to final disposal or recycling. Licensed/approved facilities for solid and liquid waste disposal must be used and a duty of care and chain of custody for all waste leaving the site will be followed. As part of the plan Contractors will be expected to produce waste handling forms for chain of custody, which will be used to control waste leaving site. Thus the waste controller will keep a copy of the form and the driver will always carry a copy and will ensure that the load is signed for at the final disposal site. All records will be kept by the Contractor for audit purposes and to demonstrate that the project is complying with best practice and applicable legislation;
- Oil and fuel storage management plan. The Contractor's SSIP should cover all procedures for storage, transportation and usage of oils and fuels, refuelling of plant and machinery and procedures for minimizing the risk of ground and water contamination. All oils and fuels will be required to be stored within secondary containment of 110 % capacity and all spillages shall be cleaned up immediately. Re-fuelling vehicles will carry Spill Kits to enable spillages to be cleaned up as soon as possible. All categories of spillage will be reported in accordance with the Plan to be developed by The Contractor. Toolbox Talks would be expected to be delivered on an ongoing basis as „continued training" and following any significant incident;
- In-river works management plan. The Contractor's SSIP should cover procedures and plans for safeguarding aquatic habitats and fish during in-river work and will complement the Construction Method Statements;

- Camp management plan. The Contractor's SSIP should contain procedures for establishing and operating construction camps in order to safeguard nearby communities and environmental resources;
- Emergency response plan. The Contractor's SSIP should contain procedures for emergency response in the event of accidents or major incidents, in order to safeguard people, property and environmental resources. Details of the spill response equipment to be provided on site are to be specified;
- Noise – all equipment is licenced and approved in accordance with EU standards. This applies to all machinery, vehicles and construction sites where noise and vibration may affect susceptible receptors. The contractor will be responsible for ensuring that noise and vibration does not affect the adjacent communities, in accordance with the Law on noise protection ("Official Gazette of RS", 36/09). While it is unlikely that noise and vibration will be an issue due to the large distances between the activities and the communities the Contractor will confine all work to daylight hours (0700hrs - 1900hrs) should the community find that any night time operations become a nuisance;
- Rehabilitation Plan: Clearance and rehabilitation of construction sites and removal of contractor‘s facilities: It is the contractor the Contractor‘s responsibility to address site cleanup. This includes the removal of all waste materials, machinery and any contaminated soil. The contractor will develop a plan for handover, sale or removal of all plant, vehicles and machinery to ensure that no unserviceable items are left on the construction site, in accordance with the Law on Waste management ("Official Gazette of RS", 36/09). All construction sites and work areas will be rehabilitated so that these can be returned as close as possible to their previous uses. This includes the stabilization and landscaping of all of the construction sites. No waste will be left on site after the work is completed, in accordance with the Law on environmental protection ("Official Gazette of RS", 135/04, 36/09, 72/09). Should the Contractor fail to remove the waste, the PERS is entitled to withhold payment and arrange the clean-up and deduct the cost of the clean-up and administrative charges from the final payment.

Safety

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

- The contractor will be required to keep the site free of drugs and alcohol;
- The contractor‘s site safety plan will include provision for a safe work environment and provide safety measures and protective equipment to all workers including; hand, head, eye and ear protection and safety footwear;

- The site safety plan will include provision for first aid facilities on-site and employ a trained first aid person, in accordance with the Law on Safety and Health at work ("Official Gazette of RS", 101/05);
- The contractor will provide supplies of potable water, toilets and wash water to the workers;
- Safety and Labour Management Plan (SLMP), prepared by the PERS, will be consisting part of bidding documentation, in order to ensure H&S provisions during rehabilitation works;
- Contractor is obliged to perform all project activities by respecting SMP recommendations and all Serbian laws and sub-laws which are covering H&S issues.

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

Community safety from increased vehicle movements: This applies to all vehicles and particularly to haul trucks that pass through villages. The contractor will ensure that all vehicles which pass through villages are operated safely without endangering these communities. The contractor is to ensure that:

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

Prior to commencement of construction activities/site works, all of the above plans will be submitted by the Contractor to the Sector for Investment within the PERS for approval.
Following the completion of works a Site restoration will take place. It's Contractor obligation to restore location of the project as it was at beginning of the project.

Operational Phase

People Safety: During operation, according to the assessment performed within the design phase, road safety features will include (1) measures to slow the traffic; e.g. decreasing of speed at selected places (e.g. settlements, schools, markets, etc.), (2) dust suppression sealing, (3) improvements in road signage and pavement markings, and (4) attention to road accident black spots.

Road Maintenance: Routine maintenance (grading, grass cutting, drain clearing, and pothole patching and shoulder repairs, together with regular control and maintenance of drainage structures and retention) will be undertaken on regular basis. Seasonal maintenance such as flood repairs, emergency maintenance to reinstate roads after major failures, and the regular upkeep of safety features and road signs will be undertaken as necessary. Major maintenance that include resurfacing and repairs are typically scheduled over periods of several years.

B. MONITORING PLAN

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

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

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

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

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS

Project Implementation

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

Prior to the commencement of works PERS will submit to the Bank for its approval this section specific Environmental Management Plan.

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

To ensure that the proposed mitigation measures will be carried out by the Contractors during the construction stage, the Project Proponent will undertake the following:

- clearly set out in the tender and contract documents the Contractor’s obligation to prepare CEP and undertake environmental mitigation measures as specified in the Environmental Mitigation Plan in Appendix I (to be appended to Contract specifications);
- No compensation for the costs of the required environmental mitigation measures and monitoring activities in the form of the particular item in the BoQ shall be given to the Contractor, except for the water quality analysis and noise measurement. It shall be regarded as if the Contractor has included these costs in the other items of the BoQ. Real expenditures of water quality analysis and noise measurement in scope defined by the BDs and the Contract shall be compensated to the Contractor in the form of the particular item in the BoQ.

For noncompliance with requested environmental mitigation measures and monitoring activities the Contractor shall suffer specific liquidated damages in a form of demerit points. Demerit points are provided as a measure that should stimulate the Contractor to carry out his obligations in an organized and timely way and to perform his duty meeting high standards even though those tasks does not appear to be of a serious nature. Demerit points have in the same time two meanings – numeric and monetary.

Each demerit point has associated monetary value which represents permanent payments reduction for determined noncompliance of the contracted obligations.

Number of received demerit points has cumulative effect. If during the Contract the Contractor receives more than certain number of demerit points specified in the BDs and the Contract, the Contractor will for a period of 2 years not be allowed to compete for any other PERS works contract. Also, if the Contractor is awarded over a specified number of demerit points, the Employer has a right to terminate the Contract. Monetary value of each demerit points as well as limits for other possible actions by the Employer shall be clearly specified in the BDs and the Contract.

Application of explained two measures - compensation for specific costs and penalties for noncompliance - should assure implementation of all requested environmental mitigation measures and monitoring activities, and

- Explicitly require the Contractor to recruit an environmental specialist. The contractor will be responsible for the implementation of environmental mitigation measures during construction and shall employ an environmental specialist who will supervise implementation of the Contractor's environmental responsibilities and coordinate with the PERS and MoT. The contractor, in coordination with PERS, shall set-up a grievance redress committee that will address any complaints during project implementation. During project implementation, the PERS shall monitor the compliance of the Contractor with the EMP provisions. It is proposed that the project supervision consultants (PSC) employ an environment specialist (with civil engineering/environmental management background) to assist the environmental supervision.

Upon Project completion, the PERS will be in charge of the operation and maintenance of the Project Road. Routine and random monitoring will be undertaken as scheduled in the monitoring plan.

The Public Enterprise "Roads of Serbia" (PERS) is also responsible for:

- Implementation of requests for environmental protection given by:
  - Government environmental authorities and EIA document (if exists),
  - IFIs and other institutions,
  - Law on environmental protection ("Official Gazette of RS", 36/09, 72/09),
- Implementation of requests for environmental protection through contractors specifications,
- Supervision of the project through the consulting services for supervision and implementation of the project,
- Supervision of environmental monitoring through the consulting services for environmental monitoring,

- Preparation of the final environmental reports.

Construction Contractor will make proposal for environmental protection, including safety of persons associated with the works and the public, during a pre-construction period within the Environmental Management Plan. This proposal will be reviewed by PERS in order to obtain the "no objection" to the proposal's recommendations. In this regard, attention will be given to:

1. taking all reasonable steps to protect the environment on and off site and avoid damage or nuisance to persons or property arising from its operations,
2. maintaining conditions of safety for all persons entitled to be on site and
3. provision of all lights, guards, fencing, warning signs, traffic control and watching for protection of the works and other property and for the safety and convenience of the public.

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

During the implementation of this Project, the public has the right to participate either directly or indirectly, which introduces the possibility to present its interests and opinion in the process of decision making. In order to reach the best option during this process, PERS was disclosed this EMP document to stakeholders (See Appendix 4) such as interested public, including local municipalities and NGOs. Draft EMP document was placed in PERS web site too (www.putevi-srbije.rs). During process of public consultations interested public collected all project information, including all environmental issues related to this project. Opinions and suggestions are incorporated within the final version of EMP document which will be an integral part of project bidding documentation. A grievance mechanism will be maintained by PERS via their website.

During rehabilitation works, a public liaison officer, named by the Contractor will establish communication with the local residents affected with the project and will be responsible to inform them about all project activities, especially related to environmental impacts of the project and planed mitigation measures.

Reporting Arrangements

A) Contractor to PERS

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

Construction Contractor will provide quarterly reports to the PERS which document the environmental mitigation and protection measures, together with prescribed monitoring activities carried out during that quarter's reporting period. Construction Contractor will take care on environment quality according to the mitigation and monitoring plan which are a consisting part of EMP (Appendix I and Appendix II) through those phases and will report quarterly to the PERS.

If any kind of accident or endangerment of environment happens, reporting will be immediate. Contractor is obliged to inform the project manager and local authorities about accidents immediately after it happened. In case that project

manager is not responding on a call, the Contractor is obliged to inform PERS about accident (phone number +381113040701 or via E-mail on following address: office@putevi-srbije.rs).

The Consulting Services of Supervision, to be contracted under the loan, includes the services of environmental monitoring as well. Within the Services in question, The Contractor will monitor quality of environmental conditions according to the monitoring plan which is a consisting part of EMP (Annex II) through those phases and will report quarterly to the PERS. These reports will encompass a list and explanation of all undertaken activities at the site and results of the field research, as well as recommendations for future field activities and protection measures.

B) Project Supervision Consultant to PERS

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

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

C) PERS to MoT, WB, EBRD and EIB

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

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

6. STAKEHOLDER ENGAGEMENT - INFORMATION DISCLOSURE, CONSULTATIONS AND PARTICIPATION

As requires by the IFIs Safeguards Policies, public consultations will be undertaken during the preparation of Environmental Management Plan - EMP.

7. REFERENCE

1 Environmental Assessment Sourcebook No 25, Environmental Management Plans, The World Bank Environment Department, January 1999

2 Roads and the environment: A Handbook, The World Bank Environment Department

3 EIB ENVIRONMENTAL AND SOCIAL PRACTICES HANDBOOK, Environment and Social Office Projects Directorate Version 2 of 24/02/2010

4 EBRD Environmental and Social Policy 2008

5 EIB Statement of Environmental and Social Principles and Standards (2008).

6 Environmental Management Plan for rehabilitation of roads, bridges and tunnels under the World Bank road management and safety project, Republic of Ruska Road Directorate, Banja Luka, 2001

7 Environmental Assessment REPORT & Environmental Management Plan for Serbian Transport Rehabilitation Project, report No: E866, project name/ID: YF-Transport Rehabilitation Project – P075207, document date 2003/11/30

Appendix I

MITIGATION PLAN

MITIGATION PLAN

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
PRE-CONSTRUCTION	**Detailed Design**				
	Respect of the procedures related to the protection of the environment	The Highway Institute JSC Belgrade, based on the authorization issued by PERS, obtained Requirements of the Institute for Nature Protection and the Institute for the Protection of Cultural Monuments, in order to avoid risks to the environment in the course of urgent maintenance and elimination of damage on the state road Ib category No.26.	PERS , Highway Institute, Belgrade	PERS	
	The location and development of the contractors' facilities will be approved by the PE. Locations will be selected so that:	- they do not interfere with the environment and social well-being of the surrounding communities re noise, dust. vibration, etc., - the size of contractor's facilities are limited to absolute minimum to reduce unnecessary clearing of vegetation, sanitary waste and grey waters are treated before release into surface water systems, in accordance with the Law on water ("Official Gazette of RS", 101/05). - the sites are properly drained. Paved areas, including vehicle parking areas, workshops and fuel storage areas are to drain to an oil and water separator, and fuel storage areas. Clearing of sites and removal and disposal of	PERS, Construction Contractor	PERS	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
		vegetation: Wherever possible limit area to be cleared and avoid excessive machine disturbance of the topsoil. Cleared material is to be piled into manageable sized heaps according to disposal or re-use requirements. Prevention of soil erosion on construction site: The contractor will be responsible for ensuring that the erosion is contained by soil conservation protection methods. The contractor will: Limit the extent of excavation to reduce soil erosion potential. Apply soil conservation protection methodology to susceptible areas to prevent / minimize storm water runoff carrying eroded materials off - site. Avoid excavation and operating machinery in wet ground conditions.			
	Site selection for construction camps, near or within existing settlements. Impact on public health and sociological setting	Proper site selection, observing criteria which primarily protect the public general. Observe a minimum distance (buffer zone) between camp site and nearest residential area. Observe local wind conditions to reduce nuisances. Work safety and environmental protection measures to be specified by the Contractor in his Site Management Plan. Planning for independent water and electric supply network and a medical service station at the site.	Detailed Design Consultant and RC	Technical Control of Detailed Design PERS	
	Road safety issues	Plan for safe and adequate pedestrian crossing	Detailed	Technical	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
	associated with pedestrian crossing	facilities that can be in most cases over passages equipped with ramps and structures that allow the use of wheelchairs, pushcarts, bicycles and prams.	Design Consultant and RC	Control of Detailed Design PERS	
	Stakeholder engagement	Details of the proposed road alignment, access points and safety features will be disclosed in the locality of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered in the final design will be recorded.	PERS Detailed Design Consultant and RC	Technical Control of Detailed Design PERS	
Construction	**Management Plans**				
	Contractor to prepare implement the following plans as described in the EMP to ensure compliance with legislative and Lender requirements. • Site organisation plan • Sewage and septage management • Project grievance mechanism) . • Soil Management Plan • Dust management plan • A plan indicating the location of the proposed material extraction site as well as rehabilitation measures to be implemented for the borrow areas and access roads upon project completion; • Waste and wastewater management plan in accordance with the Law on Waste management (“Official Gazette of RS”, 36/09). • Oil and fuel storage management plan.				

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
	• In-river works management plan. • Camp management plan. • Emergency response plan.. • Rehabilitation Plan • Safety and Hazard Assessment • Safety and Labour Management Plan (SLMP),				
CONSTRUCTION	**Site Induction**				
	All workers and visitors to site shall be given a Health, Safety and Environment Induction and instructed in the need and use of PPE.				
CONSTRUCTION	**Material supply**				
	Asphalt plant dust, fumes, workers health and safety, ecosystem disturbance	use existing asphalt plants; requirement for official approval or valid operating license	Asphalt plant	Asphalt plant	
	Stone quarry dust, workers health and safety, ecosystem disturbance	use existing stone quarries, requirement for official approval or valid operating license	Stone quarry	Stone quarry	
	Sand and gravel borrow pit, disturbance of river bed, water quality, ecosystem disturbance	use existing borrow pits or buy material at licensed separations; requirement for official approval or valid operating license	Sand and gravel Contractor or Separation	Sand and gravel Contractor or Separation	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
CONSTRUCTION	**Material transport**				
	Asphalt dust, fumes	All trucks are to be covered	Truck operator	Truck operator	
	Stone Dust	wet or cover truck load	Truck operator	Truck operator	
	Sand and gravel Dust	wet or cover truck load	Truck operator	Truck operator	
	Traffic management noise, vehicle exhaust, road congestion	haul material at off peak traffic hours (preferably 9 - 14 h); use alternative routes to minimize major traffic sites Need to ensure that adequate signs to work fronts to minimise 'wrong turn' chances causing even more congestion	Transport manager; Truck operator	Transport manager; Truck operator	
	Archaeological chance finds	In case of chance finds Contractor is obliged to stop the works immediately and inform institute for protection of Cultural Monuments and PERS about it.	Contractor	Supervisio n Contractor	
CONSTRUCTION	**Construction site**				
	Noise disturbance to human and animal population and workers	limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public and authorities); equipment operating with noise mufflers;	Construction Contractor	Construction Contractor	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
		sound barriers at work that make noise and longer than one day at the same location; Noisy equipment will be located as far as possible from residential or other sensitive receptors.			
	Dust	Wetting of problem areas on the site, covering the stored material and to limit vehicle speed. **Implement a Dust Management Plan**: measures to avoid/minimize dust emissions, including use of hoardings; wetting down/spraying of construction areas, accesses, materials stockpiles and during loading/unloading activities; covering of vehicles carrying dusty materials; wheel washing/spraying of vehicles; and management of spoil, etc.	Construction Contractor	Construction Contractor	
	Vibrations	limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public and authorities) iif any material damage proved to have been caused to local houses, buildings and other infrastructure (including access roads) by the works will be compensated for and subject to repair on a timely basis. Earthmoving equipment will be located as far away as possible from vibration-sensitive receptors.	Construction Contractor	Construction Contractor	
	Traffic disruption during construction activity	traffic management plan with measures to redirect traffic that are easily seen or easy to follow; include traffic police assistance if needed Construction Traffic Management Plan will	Construction Contractor	Construction Contractor	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
		establish speed limits for construction vehicles and organize traffic to avoid as much as possible populated areas. Local residents will be kept informed of planned works			
	Reduced access to roadside activities	provide alternative access to roadside activities at all times	Construction Contractor	Construction Contractor	
	Vehicle and pedestrian safety when there is no construction activity	appropriate lighting and well defined safety signs and protection measures.	Construction Contractor	Construction Contractor	
	Water and soil pollution from improper material storage, management and usage	organize and cover material storage areas; isolate concrete, asphalt and other works from watercourse by using sealed formwork or covers; isolate wash down areas of concrete and asphalt trucks and other equipment from watercourse by selecting areas for washing that are not free draining directly into watercourse Operate construction site in a way to reduce the risk of generating sediments and wastewater that may pollute local soils or receiving water bodies (considering situations such as including stormwater runoff, wastewater generated from facilities on site such as wheel washing facility). Soil Management Plan shall be prepared for the controlled removal of top soil, storage and reuse. Prevent sediments flowing into surface waters and drainage channels by localised control measures (eg sediment fences, check dams, mulch barriers,	Construction Contractor	Construction Contractor	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
		rock groynes, or geofabric barriers, sediment basins), contouring to optimise slope angle and steepness, Prevent wind erosion via fencing, covering, etc.			
	Water and soil pollution from improper disposal of waste materials	Storage of wastes according to international best practice (IFC EHS General Guideline). Apply additional measures for storage of hazardous wastes (such as use of secondary containment, access restriction, provision of PPE etc.) as necessary to prevent harm to construction staff, environment and public. Use and labelling of designated waste collection containers and storage areas for different kinds of wastes (hazardous and non-hazardous).	Construction Contractor	Construction Contractor	
	Potential contamination of soil and water from improper maintenance and fuelling of equipment	apply best engineering practice in safe storage and handling of lubricants, fuel and solvents by secured storage; ensure proper loading of fuel and maintenance of equipment; collect all waste and dispose to permitted waste recovery facility	Construction Contractor	Construction Contractor	
	Water and soil pollution from improper disposal of waste materials	Transport of waste in marked vehicles designed to the type of waste to minimise the risk of release of materials (hazardous and non-hazardous materials) and windblown debris. Training of drivers in handling and disposal of their cargo and the documentation of the transport describing the nature of the waste and its degree of hazard.	Construction Contractor	Construction Contractor	
	Workers safety	Workers supplied with safety instructions and	Construction Contractor	Construction Contractor	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
		protective equipment; provide a safe alternative traffic flow			
	Temporarily occupied area	Undertaking of re-vegetation progressively with cover crop and native endemic species and monitor its effectiveness. Where initial plantings were not successful, replacement plantings will be carried out.	Construction Contractor	Construction Contractor	
OPERATION	**Maintenance**				
	Noise disturbance to human and animal population and workers	limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public); equipment operating with noise mufflers	Maintenance Contractor	Maintenance Contractor	
	Possible air, water and soil pollution dust, vehicle exhaust, fuel and lubricants spills	apply best engineering practice in safe storage and handling of lubricants, fuel and solvents by secured storage; ensure proper loading of fuel and maintenance of equipment; collect all waste and dispose in line with the Law on waste management; organize and cover material storage areas; isolate asphalt from watercourse by using sealed formwork; selecting areas for washing that are not free draining directly or indirectly into watercourse; dispose waste material at location protected from washing out	Maintenance Contractor	Maintenance Contractor	
	Vibrations	limit activities to daylight working hours (not between 8 p.m. and 7 a.m. or as agreed with public and authorities)	Maintenance Contractor	Maintenance Contractor	

Phase	Issue	Mitigating measure	Institutional responsibility		Comments (e.g. secondary impacts)
			Install	Supervision	
	Workers safety	provide workers with safety instructions and protective equipment; safe organization of bypassing traffic This could really be expanded as it rather limited.	Maintenance Contractor	Maintenance Contractor	
	Increased vehicle speed	install traffic signs for speed limit	Maintenance Contractor	Maintenance Contractor	
	Erosion, rockfall, hazardous conditions	install warning signs (rockfall, landslide, wet or slippery conditions, dangerous curve, animal or pedestrian crossing, school, slow moving vehicles, merge), reflective markers to indicate steep edge or convex mirrors to see oncoming traffic at blind curves; locate warnings at points considered necessary by good engineering practice, or as agreed in writing with public and authorities	Maintenance Contractor	Maintenance Contractor	

Appendix II

MONITORING PLAN

MONITORING PLAN

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

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

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored?/ type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored? (optional)	Institutional responsibility Operate
Traffic management	hours and routes selected	job site	supervision	unannounced inspections during work, at least once per week	assure compliance of performance with environment, health and safety requirements and enable as little disruption to traffic as it is possible	Supervision Contractor
CONSTRUCTION	**Construction Site**					
Noise disturbance to workers and neighbouring population	noise levels	job site; nearest homes at settlement Banja Koviljaca. Brasina, D. Borina, Radalj and Mali Zvornik	equipment – hand-held analyzer with application software	once at the beginning of the project and later on quarterly basis, and on complaint. If the results of monitoring are not satisfactory, monitoring should be conducted on monthly basis	assure compliance of performance with environment	Construction Contractor

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored?/ type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored? (optional)	Institutional responsibility Operate
Dust	air pollution (solid particles)	at and near job site	inspection and visual observation	unannounced inspections during material delivery and construction	health and safety requirements and enable as little disruption to traffic as it is possible	Supervision Contractor
Vibrations	limited time of activities	job site	supervision	unannounced inspections during work and on complaint		Supervision Contractor
Traffic disruption during construction activity	existence of traffic management plan; traffic patterns	at and near job site	inspection; observation	before works start; once per week at peak and non-peak periods		Supervision Contractor
Reduced access to roadside activities	provided alternative access	job site	supervision	random checks at least once per week during construction activities		Supervision Contractor

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored?/ type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored? (optional)	Institutional responsibility Operate
Vehicle and pedestrian safety when there is no construction activity	visibility and appropriateness	at and near job site	observation	random checks at least once per week in the evening		Supervision Contractor
Water and soil pollution from improper material storage, management and usage	water and soil quality (suspended solids, oils, pH value, conductivity)	watercourses in the vicinity of storage (Babin and gavrin streams, rivers Borinská River Radaljska)	unannounced sampling; analysis at accredited laboratory with necessary equipment	At least 3 times during project period. Monitoring should be done prior construction (or on a referent point upstream of construction site) and during and after rehabilitation works		Construction Contractor
Workers safety I think this could be exp	protective equipment; organization of bypassing traffic Methods of work?	job site	inspection	Unannounced inspections during work. It is recommended to use proposed template for this purpose (next table)		Supervision Contractor

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

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

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

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

work in the reporting period?	No ❑	compliance of contractors with Performance Requirements and the Environmental and Social Action Plan:
Were any of the violations stated above the responsibility of contractors?	Yes ❑ No ❑	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 ❑ No ❑	If yes, please describe:
Please describe any environment or social programmes, initiatives or sub-projects undertaking during the reporting period to improve the company's environmental or social performance and/or management systems: Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Action Plan, or to any other initiative:		

2. Status of the Environmental and Social Action Plan

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

3. Environmental Monitoring Data[1]

Please provide the name and contact details for your environmental manager:				
Parameter[2]	**Value[3]**	**Unit**	**Compliance Status[4]**	**Comments[5]**
Waste Water				
Total waste water generated				

[1] Please provide the results of any environmental monitoring carried out by the Company or its consultants. If you already have all the data requested available in another format, then this can used instead.
[2] Not all parameters will necessarily apply. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.
[3] Please ensure that the units of measurement are clearly stated
[4] Please report on compliance against the standards for this project (typically local, EU and/or World Bank Group)
[5] In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

Please provide the name and contact details for your environmental manager:				
Parameter[2]	**Value[3]**	**Unit**	**Compliance Status[4]**	**Comments[5]**
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
Air Emissions				
SO_2				
NO_X				
Particulates				
CO_2				
CH_4				
N_2O				
HFCs				
PFCs				
SF_6				

Please provide the name and contact details for your environmental manager:				
Parameter[2]	**Value**[3]	**Unit**	**Compliance Status**[4]	**Comments**[5]
[Other]				
Other Parameters				
Noise				
[Other]				
Solid Waste				
Please provide details of the types and amounts of solid wastes generated by the project. Indicate where wastes are classified as hazardous. Indicate the final re-use, recycle or disposal method for each waste type.				

4. Resource Usage and Product Output

Parameter	Value	Measurement Unit	Comments[6]
Fuels used			
Oil			
Gas			
Coal			
Lignite			
Grid Electricity			

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

4. Resource Usage and Product Output

Parameter	Value	Measurement Unit	Comments[6]
Heat Purchased			
Feedstocks and raw materials consumed			
Name 1			
Name 2			
Product output			
Product 1			
Product 2			

5. Human Resources Management

Please provide the name and contact details for your Human Resources manager:			
	Total	**Recruited in this reporting period**	**Dismissed in this reporting period**
Number of direct employees:			
Number of contracted workers:			

Were there any collective redundancies during the reporting period?	Yes ❑ No ❑	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, how they were selected, consultation undertaken, and measures to mitigate the effects of redundancy:
Are there any planned redundancies	Yes ❑	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and

to the workforce in the next year?	No ❑	selection and consultation process:
Were there any changes in trade union representation at Company facilities during the reporting period?	Yes ❑ No ❑	If yes, please provide details, and summarise engagement with trade unions during reporting period:
Were there any other worker representatives (e.g. in the absence of a trade union)?	Yes ❑ No ❑	If yes, please provide details and summarise engagement with them during reporting period:
Were there any changes in the status of Collective Agreements?	Yes ❑ No ❑	If yes, please provide details:
Have employees raised any grievances with the project during the reporting period?	Yes ❑ No ❑	If yes, please state how many, split by gender, summarise the issues raised in grievances 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 ❑ No ❑	If yes, please state how many, split by gender, summarise the issues raised by male and female staff and explain how the Company has addressed them:
Have there been any strikes or other collective disputes related to labour and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarise nature of, and reasons for, disputes and explain how they were resolved
Have there been any court cases related to labour issues during the reporting period?	Yes ❑ No ❑	If yes, please summarise the issues contested and outcome:
Have there been any changes to the following policies or terms and conditions during the reporting period in any of the following areas: • Union recognition • Collective Agreement • Non-discrimination and equal	Yes ❑ No ❑	If yes, please give details, including of any new initiatives:

opportunity • Equal pay for equal work • Gender Equality • Bullying and harassment, including sexual harassment • Employment of young persons under age 18 • Wages (wage level, normal and overtime) • Overtime • Working hours • Flexible working / work-life balance • Grievance mechanism for workers • Health & safety		

6. Occupational Health and Safety Data

Please provide the name and contact details for your Health and Safety manager:					
	Direct employees	**Contracted workers**		**Direct employees**	**Contracted workers**
Number of man-hours worked this reporting period:			Number of Fatalities[7]:		
Budget spent on OHS in this period (total amount and currency):			Number of disabling injuries:		
OHS training provided in this period in person-days:			Number of Lost Time Incidents (including vehicular)[8]:		

[7] If you have not already done so, please provide a separate report detailing the circumstances of each fatality.
[8] Incapacity to work for at least one full workday beyond the day on which the accident or illness occurred.

Number of lost workdays[9] resulting from incidents:			Number of cases of occupational disease:		
Number of sick days:					
Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):					
Please provide details of any fatalities or major accidents that have not previously been reported to Banks, including total compensation paid due to occupational injury or illness (amount and currency):					
Please summarise any emergency prevention and response training that has been provided for company personnel during the report period:					
Please summarise any emergency response exercises or drills that have been carried out during the report period:					

7. Stakeholder Engagement

Please provide the name and contact details for your external relations or community engagement manager:	
Please provide information on the implementation of the stakeholder engagement plan and summarise interaction with stakeholders during the reporting period, including: - Meeting or other initiatives to engage with members of the public or public organisations during the report period, - information provided to members of the public and other stakeholders during the 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:	
How many complaints or grievances did the project receive from members of the public or civil society organisations during the reporting period? Please split by stakeholder group. Summarise any issues raised in the complaints or grievances and explain how they were resolved:	

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

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 ❑ No ❑	If no, specify how many compensation payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payment will be made:
Has the land acquisition had any additional, unforeseen impacts on affected persons' standard of living or access to livelihoods that were not previously covered in the RAP?	Yes ❑ No ❑	If yes, quantify these impacts and specify what measures have been undertaken to minimize and mitigate these impacts. If no, specify how potential impacts on livelihoods have been monitored.
Have any vulnerable groups been identified?	Yes ❑ No ❑	If yes, list the groups that were identified and describe any additional measures undertaken in order to mitigate impacts specific to these groups.
If applicable, have all transit allowances been paid?	Yes ❑ No ❑	If no, specify how many payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made.

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

9. Community Interaction and Development

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

Appendix III

LEGISLATION

MAIN SERBIAN LEGISLATION:

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

1. Law on planning and construction ("Official Gazette of RS" No. 72/2009, 81/2009);
2. Law on nature protection ("Official Gazette of RS", 36/09, 88/10 и 91/10 - corrective);
3. Law on Cultural Property ("Official Gazette of RS", 71/94);
4. Law on environmental protection ("Official Gazette of RS" No. 135/04, 36/09, 72/09);
5. Law on EIA ("Official Gazette of RS" No. 135/2004, 36/2009);
6. Law on Strategic EIA ("Official Gazette of RS" No. 135/2004);
7. Law on waste management ("Official Gazette of RS", 36/09);
8. Law on noise protection ("Official Gazette of RS", 36/09);
9. Law on water ("Official Gazette of RS", 46/91, 53/93, 67/93, 48/94, 54/96, 101/05);
10. Law on forest ("Official Gazette of RS", 46/91, 83/92, 54/93, 60/93, 53/93, 67/93, 48/94, 54/96, 101/05);
11. Law on air protection ("Official Gazette of RS", 36/09);
12. Law on Safety and Health at Work ("Official Gazette of RS", 101/05).

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

13. Decree on establishing the List of Projects for which the Impact Assessment is mandatory and the List of projects for which the EIA can be requested ("Official Gazette of RS" No. 114/08);
14. Rulebook on the contents of requests for the necessity of Impact Assessment and on the contents of requests for specification of scope and contents of the EIA Study ("Official Gazette of RS" No. 69/05);
15. Rulebook on the contents of the EIA Study ("Official Gazette of RS" No. 69/05);
16. Rulebook on the procedure of public inspection, presentation and public consultation about the EIA Study ("Official Gazette of RS" No. 69/05);
17. Rulebook on the work of the Technical Committee for the EIA Study ("Official Gazette of RS" No. 69/05);
18. Regulations on permitted noise level in the environment ("Official Gazette of RS" No. 54/92);
19. Decree on establishing class of water bodies ("Official Gazette of SRS" No. 5/68);
20. Decree on categorization of watercourses (Official Gazette of RS, no. 5/68, 33/75, 31/82);
21. Regulations on dangers pollutants in waters ("Official Gazette of SRS" No. 31/82).

Other relevant Serbian legislation

22. 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", 38/09);
23. Law on public roads ("Official Gazette of RS" No. 101/2005, 123/07)

Appendix IV

STAKEHOLDER ENGAGEMENT AND REPORT ON PUBLIC CONSULTATION

Identified Stakeholders

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

Potential affected parties:

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

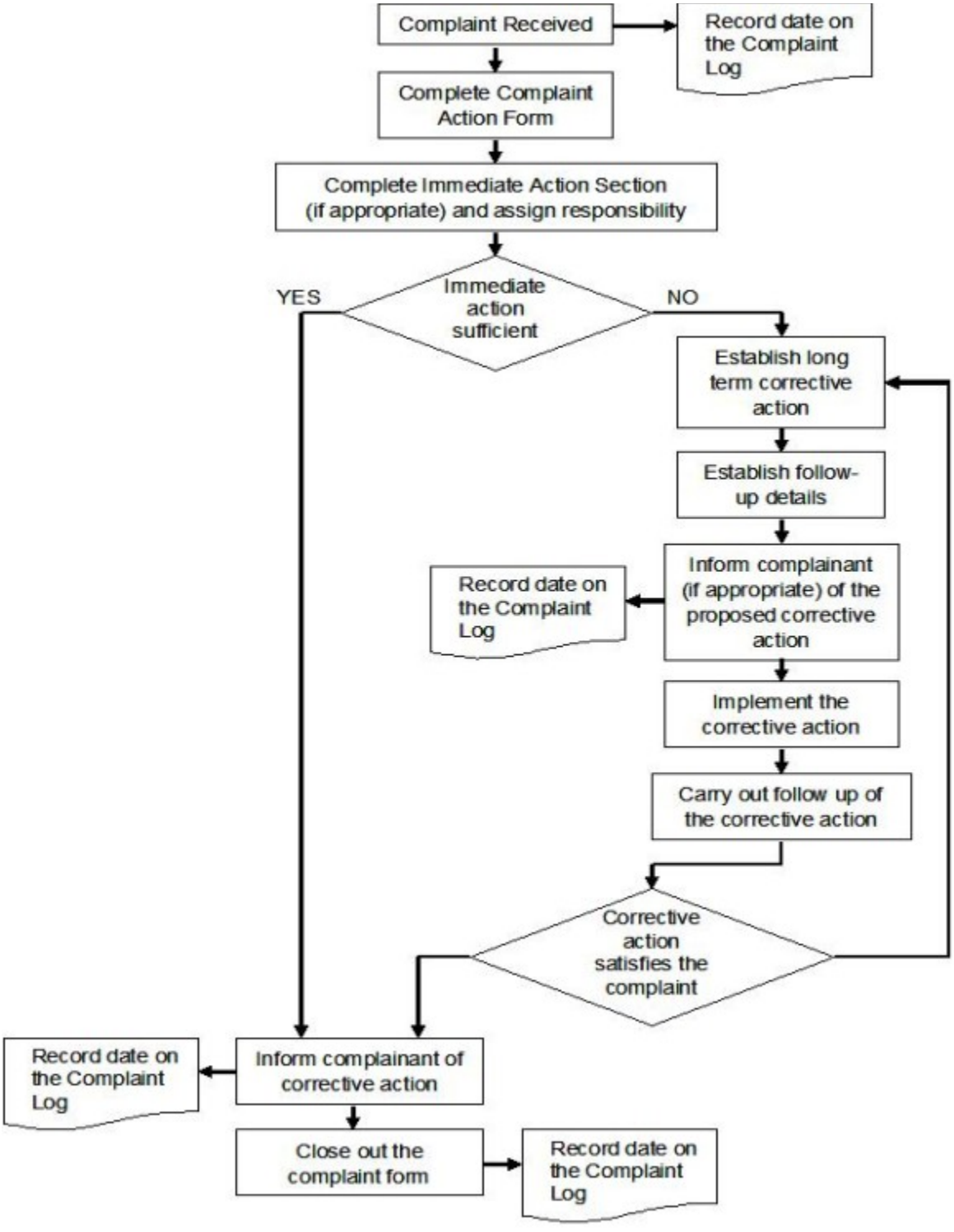
Interested parties:

- General public;
- Other companies operating on the National Grid; and
- Non-Governmental Organisations (NGO).

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

Grievance mechanism and form

Flowchart of Complaints/Grievance Procedure



Grievances to be resolved within 15 working days.

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

The results of public discussion about the environmental management plan
Feedback from public consultation on EMP

1. HISTORY

The Republic of Serbia has applied for financing The road rehabilitation design by the World Bank, the European Investment Bank and the European Bank for Reconstruction and Development. A part of the funding is directed to urgent maintenance and repair of damage on the state road IB category no. 26, Belgrade - Sabac - Mali Zvornik, section: B. Koviljaca - Mali Zvornik, from km 0 + 000 to km 14 + 150, length of 14.150 km. The stated design is a part of the urgent unforeseen works within the design of the road rehabilitation which is necessary for the purpose of rehabilitation and repair of damage caused by severe floods in May 2014.

The design is classified as Category B of the environment, thus as a design which requires the production of the Environmental Management Plan which is consistent with the policies of international financial institutions in the environmental scope. According to the legislation in The Republic of Serbia, especially after the adoption of the Law on Environmental Impact Assessment ("Official Gazette", No. 135/04, 36/09) - appraisal of the environmental impact assessment is not required for the designs of the roads rehabilitation.

The Highway Institute JSC Belgrade - Department for Environment Protection has prepared a draft document, the Environmental Management Plan for the urgent maintenance and remedy of damages on the state road IB Class No.26, on the section of Banja Koviljaca - Mali Zvornik, which was submitted for review ... .. 2015, to the World Bank, the European Bank for Reconstruction and Development and the European Investment Bank for comments and objections. The Environmental Management Plan was created with the aim to ensure the implementation of best practices and projects in accordance with the requirements of international financial institutions in environmental protection which fund the rehabilitation of roads and Security Project. The production of the Environmental Management Plan was carried out through study and examination in the field, including the consultations with representatives of the regional and local level. The Environmental Management Plan is based primarily on studies in the field which were executed during March and April 2015.

…….2015. It has been submitted to PERS the document with the joint comments of the European Bank for Reconstruction and Development and the World Bank on the Environmental Management Plan. PERS forwarded the received comments, undertook and started public consultation and disclosure of the document.

On … 2015 PERS announced invitation for Public Consultations for the public, bodies and organizations interested in EMP for road rehabilitation works on Banja Koviljaca - Mali Zvornik road section. Public and other interested parties and organizations were invited to participate in process of public consultation on draft EMP document. Prior to announcement in the newspapers, the EMP was delivered to the Municipality of … … . Representatives of the local municipality informed the public through their local media of the time and place of public consultations. Invitation was placed on PERS web site too. Insight into the EMP document was ensured on following addresses:

- the premises of the PE “Roads of Serbia“, investment sector, 19a Vlajkoviceva St., Belgrade, on the first floor, on working days from 11:00 AM to 01:00 PM (local time), within 7 days starting from ……09. 2015.

- the premises of ..... Municipality, ….
- on PE “Roads of Serbia“ web site: www.putevi-srbije.rs

Public Consultation and presentation of EMP document were held in the premises of …….. Municipality,……. Question raised and clarification provided are presented within this Report on Public Consultations.

2. REPORT FROM THE PUBLIC CONSULTATION, … MUNICIPALITY …… 2015

In accordance with OP/BP 4.01, PERS has prepared EMP document for Road rehabilitation works on 14.150 km long road section Banja Koviljaca - Mali Zvornik.

Presenting records Environmental Management Plan document began ……..

Picture 1: Public discussion in Loznica(M.Zvornik), July ..th, 2015

1. DOCUMENTATION

Picture 2: Announcement of public discussion in daily newspaper (“Politika”, July .., 2015)

Picture 3: Announcement of public discussion in daily newspaper (“Politika”, July 05, 2015)

Picture 4: Announcement of public discussion in daily newspaper (“Politika”, July 05, 2015)

Picture 5: Announcement of public discussion on PERS web site (July ..th 2015 to August .. th 2015)

Picture 6: Announcement of public discussion on PERS web site (July ..th 2015 to August .. th 2015)

Appendix V

CONDITION AND APPROVALS AND THE NECESSARY DOCUMENTATIONS FROM THE RELAVANT PUBLIC INSTITUTIONS

РЕПУБЛИКА СРБИЈА
ЗАВОД ЗА ЗАШТИТУ ПРИРОДЕ СРБИЈЕ
03 Број: 020-753/3
Датум: 18.05. 2015.
НОВИ БЕОГРАД, Др Ивана Рибара бр. 91
тел. 011/209-3802; 209-3803; факс. 209-3867

Завод за заштиту природе Србије, на основу члана 9. Закона о заштити природе („Службени гласник РС", бр. 36/2009, 88/2010 и 91/2010-исправка) и члана 192. Закона о општем управном поступку („Службени лист СРЈ", бр. 33/1997 и 31/2001 и „Службени гласник РС", бр. 30/2010), поступајући по захтеву Института за путеве ад Београд за издавање услова заштите природе за израду Пројекта за ургентно оржавање и отклањање оштећења на државном путу IБ реда бр. 26 деоница: Бања Ковиљача – Мали Зворник (km 0+000 – km 14+150) и државног пута IБ реда бр. 28 деоница: Мали Зворник – Љубовија 1 (km 28+160 – km 41+686), доноси

РЕШЕЊЕ

1. Предметна подручја, односно деонице пута се не налазе унутар заштићеног подручја за које је спроведен или покренут поступак заштите, али се налазе уз реку Дрину - еколошки коридор од међународног значаја. Сходно томе, издају се следећи услови заштите природе:

   1) Пројектом за ургентно одржавање и отклањање оштећења на државном путу IБ реда, бр. 26 и бр. 28 на деоницама Бања Ковиљача – Мали Зворник и Мали Зворник – Љубовија 1 предвидети таква решења и мере који ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода (посебно Дрине реке од међународног значаја, као и других водотокова).
   2) Саставни део предметног Пројеката треба да буде и део који се односи на организацију радилишта, при чему је неопходно дефинисати и обезбедити:
      - привремене локације за складиштење потребног грађевинског и другог материјала и опреме (уколико има потребе за тим) које не могу бити лоциране у обалском појасу Дрине и на простору са високом вегетацијом, а ограничити искључиво на време трајања радова;
      - привремене или трајне локације (постојеће уређене комуналне објекте/депоније) за одлагање и депоновање шута и другог отпадног грађевинског материјала у било каквом стању и комуналног отпада насталог у току извођења радова, као и забрану њиховог одлагања у обалском појасу Дрине, приобаљу других река и пољопривредном земљишту, осим на локацијама дефинисаним Пројектом;
      - да се након завршетка предметних радова све површине које су на било који начин деградиране грађевинским и другим радовима, што пре санирају.
   3) При извођењу радова строго се придржавати трасе пута како манипулација возилима и машинама не би оставила последице на шири простор.
   4) На траси пута која је непосредно уз Дрину, еколошки коридор предвидети максимално очување обалског појаса реке, тј. приобалне вегетације, односно забрањено је уништавање и нарушавање дивљих врста и њихових станишта.
   5) У току извођења радова забрањено је одлагање и депоновања било каквог отпада, а посебно грађевинског у обалском појасу Дрине.

6) У зони прелаза пута (мостова) преко водотокова (Радаљска река, Боринска, Узовничка, Крупинска и Грачаничка река, Медал и Требишница) где је неопходно уређење, Пројектом предвидети употребу камена и других природних материјала, и у највећој могућој мери избећи бетонирање обала и корита водотокова (спровести тзв. натурално уређење водотокова) при чему је неопходно максимално очување самих корита, али и обала са постојећом вегетацијом.
7) Забрањено је сервисирање возила и машина дуж трасе пута. Уколико дође до хаваријског изливања горива, уља/мазива и других штетних материја обавезна је санација површине и враћање у првобитно стање.
8) Предметне радове на траси пута која пролази кроз насељена места, изводити само у току дана због могућег утицаја буке од грађевинских машина и возила.
9) Предузети мере заштите становништва од удеса. У том смислу потребно је предвидети постављање заштитних ограда и пешачких прелаза и пролаза на местима где је то најцелисходније, нарочито на локацијама у близини постојећих насеља.
10) Током извођења радова дуж целе трасе одржавати максимални ниво комуналног реда.
11) По изведеним грађевинским радовима неопходно је што пре уклонити сву механизацију, грађевински материјал и друго. Уколико је дошло до нарушавања предметног подручја (терена дуж трасе) треба га санирати. У том смислу, успоставити биљни покривач (култивисати терен) на свим угроженим местима, применом одговарајуће флоре, 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.

2. Ово Решење не ослобађа подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима.
3. За све друге радове/активности на предметном подручју, потребно је Заводу за заштиту природе Србије поднети нови захтев.
4. Уколико подносилац захтева у року од две године од дана достављања овог Решења не отпочне радове и активности за које је ово Решење о условима заштите природе издато, дужан је да од Завода прибави ново решење о условима.
5. Такса за издавање овог Решења у износу од 30.000,00 динара је одређена у складу са чланом 2. став 5. тачка 1. Правилника о висини и начину обрачуна и наплате таксе за издавање акта о условима заштите („Службени гласник РС", бр. 73/2011, 106/2013). Подносилац захтева је дужан да наведену таксу уплати у корист рачуна Завода у року од 5 дана од дана достављања предрачуна.

О б р а з л о ж е њ е

Институт за путеве ад Београд (11221 Београд, ул. Кумодрашка бр. 257) обратио се дописом бр. 20-2552 од 08.04.2015. године за издавање услова заштите природе за израду Пројекта за ургентно оржавање и отклањање оштећења на државном путу IБ реда бр. 26 деоница: Бања Ковиљача – Мали Зворник (km 0+000 – km 14+150) и државног пута IБ реда бр. 28 деоница: Мали Зворник – Љубовија 1 (km 28+160 – km 41+686).

На основу достављеног захтева и пратеће документације подносиоца захтева, утврђено је да је планирана израда Пројекта за ургентно оржавање и отклањање оштећења на државном путу ІБ реда бр. 26 деоница: Бања Ковиљача – Мали Зворник (km 0+000 – km 14+150) и државног пута ІБ реда бр. 28 деоница: Мали Зворник – Љубовија 1 (km 28+160 – km 41+686). Предметни Пројекат је саставни део Пројекта рехабилитације и безбедности на путевима Републике Србије и подразумева грађевинске – путарске радове у оквиру трасе већ постојећег пута. Врсте радова, технички услови и начин извођења радова дефинисани су Правилником о ургентном одржавању државног пута („Службени гласник РС“, бр. 74/2014 и 87/2014).

Увидом у Централни регистар заштићених природних добара и документацију Завода за заштиту природе Србије, а у складу са прописима који регулишу област заштите природе, утврђени су услови заштите природе из диспозитива овог Решења. При томе се имало у виду да се предметно подручје (траса пута) не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите, на основу Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010 и 91/2010-исправка), али се налазе уз реку Дрину - еколошки коридор од међународног значаја (Уредба о еколошкој мрежи, „Службени гласник РС“, бр. 102/2010).

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

Предметни радови могу се реализовати под условима дефинисаним овим Решењем, јер је процењено да неће угрозити природне вредности предметног 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 и 57/2014).

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

ДИРЕКТОР
Александар Драгишић

Достављено:
- Подносиоцу захтева
- Архиви

На основу члана 107. став 1 и 2 Закон о културним добрима (Службени гласник Републике Србије" бр.71/94), Завод за заштиту споменика културе "Ваљево" даје :

УСЛОВЕ ЧУВАЊА, ОДРЖАВАЊА И КОРИШЋЕЊА ЗА УРГЕНТНО ОДРЖАВАЊЕ И ОТКЛАЊАЊЕ ОШТЕЋЕЊА НА ДРЖАВНОМ ПУТУ ІБ. 26 ДЕОНИЦА: БАЊА КОВИЉАЧА-МАЛИ ЗВОРНИК (0+000-КМ 14+150 КМ) И НА ДРЖАВНОМ ПУТУ ІБ. 28 ДЕОНИЦА МАЛИ ЗВОРНИК-ЉУБОВИЈА(28+160-КМ 41+686КМ)

1. На траси пута и у непосредној околини пута Бања Ковиљача-Мали Зворник (0+000-км 14+150 km) и на државном путу іб. 28 деоница Мали Зворник-Љубовија(28+160-км 41+686km) налазе се следећа археолошка налазишта:

ид. број **1023**

назив	Црквина	**класа**	гробље
место	Бања Ковиљача	**врста**	некропола са стећцима
општина	Лозница	**максимална**	70
катастарска	22	**максимална дужина**	40
х координата	7,351677E+10	**површина**	0,3
у координата	4,931286E+09	**датовање**	нн
тип земљишта	Планосол, Лувисолс	**културна припадност**	провинцијска
геолошка подлога		**нб** **период**	средњи век
тип рељефа	врх брда	**вишеслојни**	
надморска	334	**поузданост**	3
напомена			

број споменика:			**орнаменти натпис:**		0
усадник:	21	**слемењак:**	1 **аморфни**	0	
плоча:	6	**сандук:**	7 **крст:**	0	

ид. број 1025

назив	Точка	**класа**	гробље
место	Бања Ковиљача	**врста**	некропола са стећцима
општина	Лозница	**максимална**	70

катастарска	22	**максимална дужина**	40
х координата	0	**површина**	0,3
у координата	0	**датовање**	ни
тип земљишта	Планосол, Лувисолс	**културна припадност**	провинцијска
геолошка подлога		нб **период**	позна антика
тип рељефа	врх брда	**вишеслојни**	
надморска	334	**поузданост**	3
напомена			

број споменика: **орнаменти натпис:** 0

усадник:	21	**слемењак:**	1	**аморфни**	0
плоча:	6	**сандук:**	7	**крст:**	0

Ид. број 251

назив	Осиште	**класа**	рурална насеобина
место	Брасина	**врста**	неопредељен
општина	Мали Зворник	**максимална ширина**	100
катастарска	00	**максимална**	100
х координата	7,352933E+09	**површина**	1
у координата	4,926849E+09	**датовање**	ни
тип земљишта	Планосол, Лувисолс	**културна**	провинцијска
геолошка подлога	нб	**период**	позна антика
тип рељефа	друга речна тераса	**вишеслојни**	
надморска висина	180	**поузданост информације**	3

напомена Непосредно у селу, на завршетку последње косе која пада са Гучева ка Дрини је локалитет Осишсте. На површини 100x100м. Има керамике, опеке, шута и другог. На основу налаза керамике опредељено је ово насеље као римска вила рустика. Одавде вероватно потиче и натпис који је Сима Тројановић забележио.

Ид. број 500

назив	Мост	**класа**	гробље
место	Брасина	**врста**	некропола стећци
општина	Мали Зворник	**максимална ширина**	100
катастарска	22	**максимална**	200
х координата	7,352871E+09	**површина**	0
у координата	4,925428E+08	**датовање**	15
тип земљишта	Планосол, Лувисолс	**културна**	неопредељен
геолошка подлога		нб **период**	средњи век

тип рељефа друга речна тераса **вишеслојни**
надморска висина 140 **поузданост информације** 4
напомена стећак се налази у дворишту лозничког музеја

број споменика: 1 **орнамент натпис:** 1
усадник: 0 **слемењак:** 0 **аморфни:** 0
плоча: 0 **сандук:** 0 **крст:** 0

Ид. број 502

назив Римско гробље **класа** гробље
место Брасина **врста** некропола под
општина Мали Зворник **максимална ширина** 100
катастарска 22 **максимална** 200
х координата 7,352596E+09 **површина** 0
у координата 4,926266E+09 **датовање** нн
тип земљишта Планосол, Лувисолс **културна** неопредељен
геолошка подлога нб **период** позни средњи век
тип рељефа друга речна тераса **вишеслојни**
надморска висина 140 **поузданост информације** 4

напомена Непосредно у селу, при ушћу Орловачке реке у Дрину, налази се Римско гробље. До скоро је било неколико стећака који су минирани и однети. Мештанл су ископавали и озидане гробнице од камена. Доста стећака је покупио и уградио у кућу трго вац Владић у Лозници почетком овога века.Судећи по стећцима гробље је из 15 века.

број споменика: 10 **орнамент натпис:** 0
усадник: 0 **слемењак:** 0 **аморфни:** 0
плоча: 0 **сандук:** 0 **крст:** 0

Ид. број 252

назив Пећина- Римско гробље **класа** фортификација
место Радаљ **врста** насеље, спекулум, некропола
општина Мали Зворник **максимална ширина** 50
катастарска 00 **максимална** 50
х координата 7,352837E+09 **површина** 0,3
у координата 4,920938E+08 **датовање** нн
тип земљишта Планосол, Лувисолс **културна** српска
геолошка подлога нб **период** средњи век, бронзано

доба, антика

тип рељефа врх брда **вишеслојни локалитет**
надморска висина 280 **поузданост информације** 3
напомена измешент у Београд, Калемегдан

број споменика: 4 **орнамент натпис:** 1
усадник: 0 **слемењак:** 0 **аморфни:** 3
плоча: 0 **сандук:** 1 **крст:** 0

Ид. број 525

назив Пруга **класа** рурална насеобина
место Мали Зворник **врста** неопредељен
општина Мали Зворник **максимална ширина** 100
катастарска 22 **максимална** 200
х координата 0 **површина** 0
у координата 0 **датовање** нн
тип земљишта Планосол, Лувисолс **културна** неопредељен
геолошка подлога нб **период** позна антика
тип рељефа друга речна тераса **вишеслојни**
надморска висина 140 **поузданост информације**

идентификациони 258
назив Громионица-Црквина
место Црнча
катастарска 22
х координата 7,365115E+08
у координата 4,904532E+09
тип рељефа друга речна тераса
надморска висина 170
класа локалитета рурална насеобина
врста локалитета Викус
максимална ширина200
максимална дужина 800
површина 16
континуитет налаза једна зона
датовање 3 не
културна провинцијска
период позна антика
вишеслојни

напомена некропола у западном делу локалутета на месту Црквине зграда са апсидом ка западу, гробови мала лопашница,

пут средњи век насеље

идентификациони 400
назив Пановићи
место Црнча
катастарска 22
х координата 7,365115E+08
у координата 4,904532E+09
тип рељефа падина брда
надморска висина 180
класа локалитета гробље
врста локалитета некропола
максимална ширина 100
максимална дужина 100
површина 1
континуитет налаза једна зона
датовање 3 не
културна провинцијска
период позна антика
вишеслојни

напомена локалитет се налази око 200 м пре моста на крушини са десне стране пута идући од Љубовије. Приликом изградње две породичне куће откривена су зшта и већи број римских жижакаи керамике. Можда представља јединствену целину са локалитетом Крушина.

идентификациони 583
назив Гробље
место Лоњин
катастарска 00
х координата 7,36856E+08
у координата 4,898345E+09
тип рељефа врх брда
надморска висина 797
класа локалитета војна инфраструктура
врста локалитета бенефицијарна станица
максимална ширина 50
максимална дужина 100
површина 0,5
континуитет налаза једна зона
датовање 4 не
културна провинцијска
период bronzano doba
вишеслојни

напомена

идентификациони 271

назив Градина-Микуљак

место Лоњин

катастарска 00

х координата 7,369162E+09

у координата 4,899691E+09

тип рељефа врх брда

надморска висина 400

класа локалитета војна инфраструктура

врста локалитета спекулум

максимална ширина 20

максимална дужина 30

површина 0,2

континуитет налаза једна зона

датовање нн

културна провинцијска

период позна антика

вишеслојни

напомена

идентификациони 1023

назив Ђурића поток

место Узовница

катастарска нн

х координата 7,366753E+08

у координата 4,904456E+09

тип рељефа прва речна тераса

надморска висина 205

класа локалитета дислоцирани налази

врста локалитета неопредељен

максимална ширина 0

максимална дужина 0

површина 0

континуитет налаза једна зона

датовање 3

културна провинцијска

период позна антика

вишеслојни

напомена Скулптура лава

идентификациони 267

назив Мраморје

врста локалитета Налази у секундарном контексту

максимална ширина 100

место Узовница

максимална дужина 50

катастарска 00

површина 0.5

х координата 7.36787E+09

континуитет налаза једна зона

у координата 4.902375E+09

датовање 3 не

тип рељефа друга речна тераса

културна провинцијска

надморска висина 280

период позна антика

класа локалитета дислоцирани налази

вишеслојни

napomena парапетна плоча, 2 жртвенока
жртвеник са 26
још један жртвеник од 03.2010, профилисани делови грађевина храм?средњевековно гробље

идентификациони 1011

врста локалитета топионица и ковачница

назив Дворине

максимална ширина 100

место Узовница

максимална дужина 50

катастарска нн

површина 0,5

х координата 7,36831E+09

континуитет налаза једна зона

у координата 4,903946E+09

датовање нн

тип рељефа прва речна тераса

културна српска

надморска висина 205

период позни средњи век

класа локалитета инфраструкура

вишеслојни

napomena Остаци грађевине од ломљенокаменан канала за воду. У земљи виско концетрација гарежиод ћумура.

2.

УСЛОВИ ЧУВАЊА, ОДРЖАВАЊА И КОРИШЋЕЊА АРХЕОЛОШКИХ НАЛАЗИШТА

- Уколико се накнадно открију археолошки локалитет, исти се не смеју уништавати и на њима вршити неовлашћена прекопавања, ископавања и дубока преоравања.

- Инвеститор објекта је дужан да обезбеди средства за истраживања, заштиту, чување, публиковање и излагање добра које ужива предходну заштиту које се открије приликом изградње инвестиционог објекта- до предаје добра на чување овлашћеној установи заштите.
- (члан 110. Закона о културним добрима)

- У непосредној близини археолошких локалитета инвестициони радови спроводе се уз повећане мере опреза и присуство и контролу надлежних служби заштите.(Завода за заштиту споменика културе "Ваљево")

- Археолошки локалитети се не смеју уништавати и на њима вршити неовлашћено прекопавања, ископавања и дубока заоравања (преко 30 цм).

- -Уколико би се током радова наишло на археолошке предмете извођач радова је дужан да одмах, без одлагања прекине радове и обавести надлежни Завод за заштиту споменика културе и да предузме мере да се налаз не уништи и не оштети, те да се сачува на месту и у полажају у коме је отривен (члан 109. ст.1 Закона о културним добрима).

- -У случају трајног уништавања или нарушавања археолошког локалитета због инвестиционих радова, спроводи се заштитино ископавање о трошку инвеститора.
- (члан 110. Закона о културним добрима)

- -У непосредној близини археолошких локалитета инвестициони радови спроводе се уз повећане мере опреза и присуство и контролу надлежних служби заштите.(Завода за заштиту споменика културе "Ваљево")

- -Забрањује се привремено или трајно депоновањ земље, камена, смећа и јаловине у, на и у близини археолошких локалитета.

- -Дозвољава се инфраструктурно опремање простора археолошких локалитета и његово уређење према посебним условима и стручним мишљењима које доноси Завод за заштиту споменика културе "Ваљево".

- -Забрањено је вађење и одвожење камена и земље са археолошких локалита.

- -Остаци старих рударских радова, окна и шљакишта не смеју се уништавати пре документовања, истраживања и узимања узорка шљаке

од стране надлежне институције заштите (Завод за заштиту споменика културе Ваљево).

О б р а з л о ж е њ е :

Предузеће "Институт за путеве АД Београд" из Београда обратило се 29.04. 2015. године Заводу за заштиту споменика Културе "Ваљево", са захтевом за израду Услова чувања, одржавања и коришћења За ургентно одржавање и отклањање оштећења на државном путу іб. 26 деоница: Бања Ковиљача-Мали Зворник (0+000-км 14+150 km) и на државном путу іб. 28 деоница Мали Зворник-Љубовија(28+160-км 41+686km)

У прилогу је достављена пратећа документација, пројекат и топографска карта у размери 1: 25 000 са назначеним зонама истражног простора.
По обављеном увиду у службену евиденцију Завода, проучавањем литературе обиласком терена утврђено је да на простору деонице Бања Ковиљача-Мали Зворник (0+000-км 14+150 km) и на државном путу іб. 28 деоница Мали Зворник-Љубовија(28+160-км 41+686km)
са становишта заштите непокретних културних добара Дозвољено извођење радова на одржавању и отклањању оштећења на државном путу.

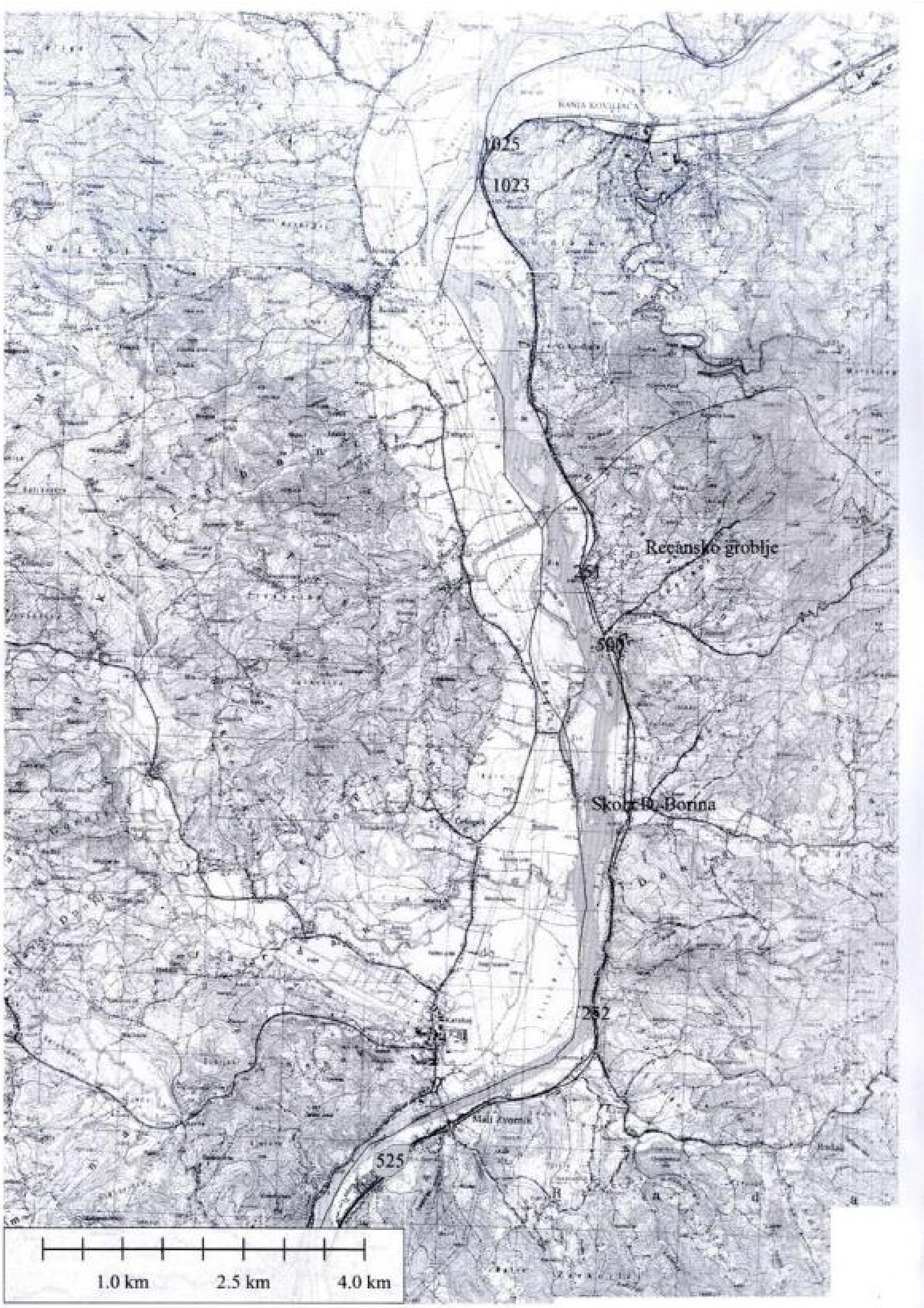
Тачком 2 диспозитива овог решења указује на обавезу која произилази из самог Закона о културним добрима (члан 109 и 110).

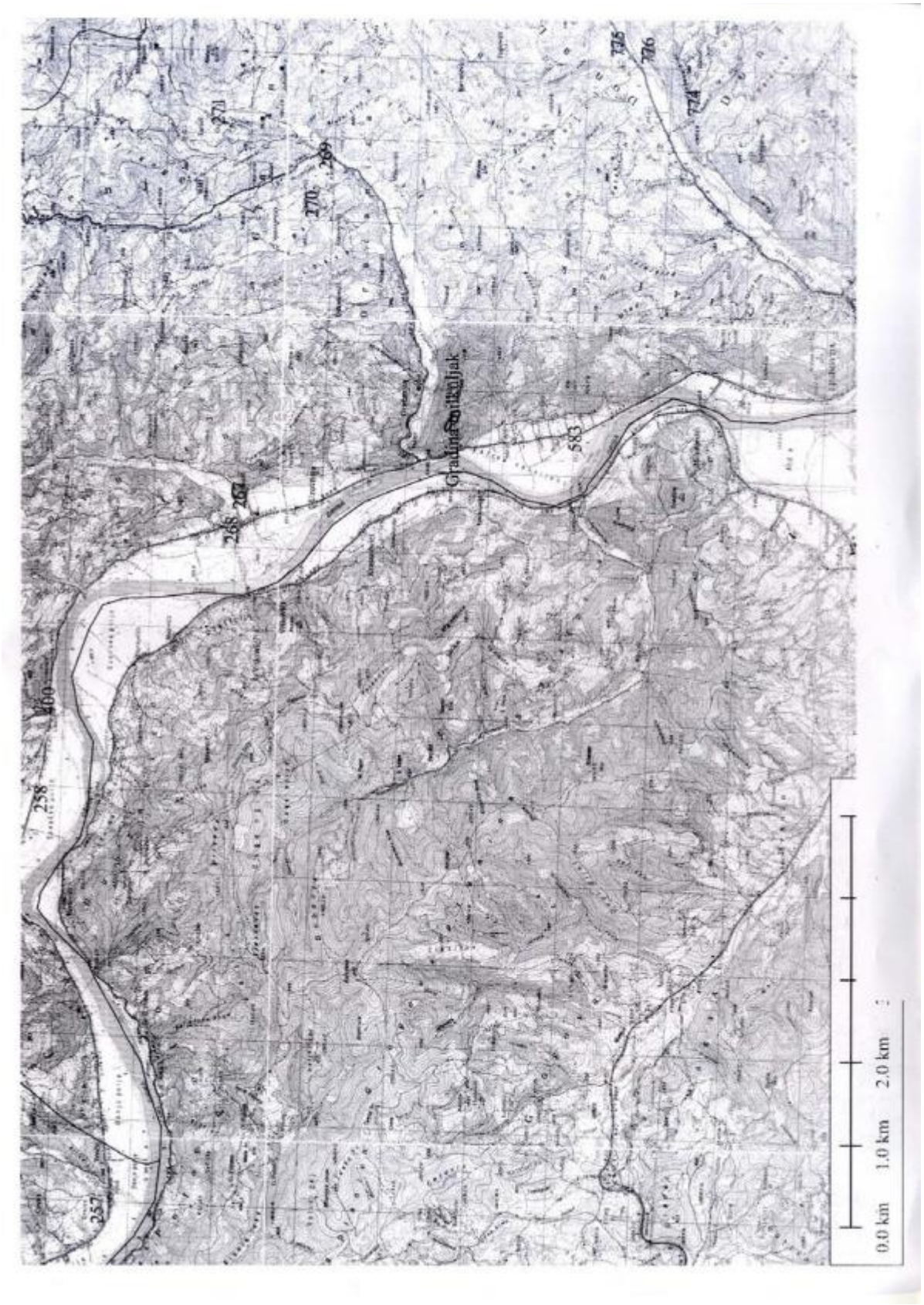
Обрађивачи:

Радивоје Арсић, М.А. археолог

в.д. директора Завода

Невенка Радојичић


1025
1023
Recansko groblje
505
Skorz D. Borina
252
525
1.0 km
2.5 km
4.0 km


0.0 km
1.0 km
2.0 km

Република Србија
МИНИСТАРСТВО ПОЉОПРИВРЕДЕ
И ЗАШТИТЕ ЖИВОТНЕ СРЕДИНЕ
Број: 011-00-01004/2015-16
Датум: 13.07.2015.
Београд

ЈАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"
Број 955-14380/15-1
21-07-2015
Датум
БЕОГРАД, Булевар краља Александра бр. 282

ЈП ПУТЕВИ СРБИЈЕ
Сектор за инвестиције
11 000 БЕОГРАД
Влајковићева 19а

Предмет: Допис у вези са захтевом

Министарству пољопривреде и заштите животне средине обратили сте се Захтевом за давање мишљења о потреби израде студије о процени утицаја на животну средину пројекта ургентног одржавања и отклањања оштећења на државном путу IБ реда бр. 26 деоница: Бања Ковиљача – Мали Зворник (км 0+055-км 14+150 L=14.205 км) и на државном путу IБ реда бр. 28 деоница Мали Зворник (Грачаница) – Љубовија 1 (км 28+160-км 41+686 L=13,526 км), заведен под бројем 011-00-01004/2015-16 од 07.07.2015.

У допису наводите да пројекат подразумева грађевинско-путарске радове у оквиру трасе већ постојећег пута и да ће се за рехабилитацију предметне саобраћајнице користити уобичајени грађевински материјали (агрегат, цемент, бетонско гвожђе, итд.).

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;
- Кратак опис пројекта;
- Решење бр. 020-753/3 од 18.05.2015. које је издао Завод за заштиту природе Србије;
- Решење бр. 242/1 од 17.06.2015. које је издао Завод за заштиту споменика културе “Ваљево”;

- Мишљење у поступку издавања водних услова бр. 1188/1 и 1521/1 од 16.04.2015. које је дало ЈКП СРБИЈАВОДЕ;
- Графички прилози, прегледне карте;

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

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

Државни секретар
По решењу о овлашћењу
бр. 119-01-13/2/2015-09 од 12.01.2015.

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