ROAD REHABILITATION AND SAFETY PROJECT

MAIN DESIGN FOR HEAVY MAINTENANCE OF THE STATE ROAD

IB22

LOT4:

road section: Raska (K. Mitrovica) – Novi Pazar (Banja), from km 235+917 to km 253+891,

L= 17.974km

Contract ID: RRSP/CS3-RRD3-1/2016-11

ENVIRONMENTAL MANAGEMENT PLAN

FINAL DRAFT

Author:

Miroslav Stojanovic

BSc civ.eng.

PREPARED BY:

BOTEK

MHM projekt

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CONTENT

ABBREVIATIONS

AADT	Annual Average Daily Traffic
CEP	Contractor's Environmental Plan
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMP	Environmental Management Plan
HSE	Health, Safety and Environment
IFIs	International Financing Institutions
INCRS	Institute for Nature Conservation of Serbia
IPCM	Institute for Protection of Cultural Monuments
MoEP	Ministry of Environmental Protection
MoCTI	Ministry of Construction, Transport and Infrastructure
NRNRP	National Road Network Rehabilitation Program
OP	Operational Policy
PIT	Project Implementation Team
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

The Environmental Management Plan has been prepared for the proposed Design for heavy road maintenance of the State Road IB no. 22, road section Raska (Kosovska Mitrovica) – Novi Pazar (Banja), in order to ensure application of good environmental practice and document compliance with the requirements of the International Financing Institutions (IFI's) which will finance this Project.

In accordance with the guidelines issued by IFIs, the project was classified as B Category of environmental risk, and it requires development of Environmental Management Plan (hereinafter referred to as EMP).

The Project Proponent is the Government of Serbia, acting through its Ministry of Construction, Transport and Infrastructure (MoCTI). Project implementing entity is Public Enterprise "Roads of Serbia" (PERS).

The aim of the EMP is to identify potential negative environmental impacts and management problems during the execution of construction works, as well as the necessary mitigation measures that the Contractor must apply. The key components of the EMP are: Environmental Mitigation Plan and Environmental Monitoring Plan.

The EMP analyses the rehabilitation phase and operational phase of the relevant section thus defining measures which are the obligation of the Contractor during the execution of rehabilitation works.

Design elaboration will be compliant with Serbian legislation, rules, regulations and provisions, as well as with the international conventions and protection guidelines, issued by the IFIs. According to the Project Implementation Plan, the aim of the project is increasing the usability and durability of the road, promoting traffic safety, including the requirements of local community (social aspect) and complying with the environmental requirements to the greatest extent given the circumstances of spatial limitations and the constraints arising from types of allowed constructive and traffic measures.

For the suggested road section, the Environmental Management Plan is focused on activities connected to scope of civil works related to urgent maintenance and eliminating negative environmental impacts and it will be a part of the civil works contract. The activities connected to the regular maintenance of the road section, even though they are not brought into focus of this plan, will be included in EMP for the sake of completeness. The preparation of this EMP was undertaken through theoretical studies 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 2018.

EXECUTIVE SUMMARY

Project Description

Road Rehabilitation and Safety Project (RRSP) is the project in which IFIs (World Bank, European Investment Bank and European Bank for Reconstruction and Development) provide support to the Government of the Republic of Serbia in implementing the National Program for State Road Network Rehabilitation. This project represents the realization of the Government's program for the period from 2014 to 2019.

The main goal of the project is improving the conditions and traffic safety on the State Road IB no. 22 section: Raska (K. Mitrovica) – Novi Pazar (Banja).

Location Description

The subject road section belongs to the Raska administrative district located in the south- western part of the Republic of Serbia. The road section Raska (K. Mitrovica) – Novi Pazar (Banja) 17.974 km in length belongs to the State Road IB no. 22 (old road numeration M-22) ("Official Gazette of RS", No. 93/2015) and represents a part of the road that connects Kraljevo and Novi Pazar (Figure 1.). Moreover, the observed road section is a part of the Project planned for heavy maintenance during the third year of its implementation. All chainages in the Terms of Reference are given in accordance with the new Reference system from December 2015.

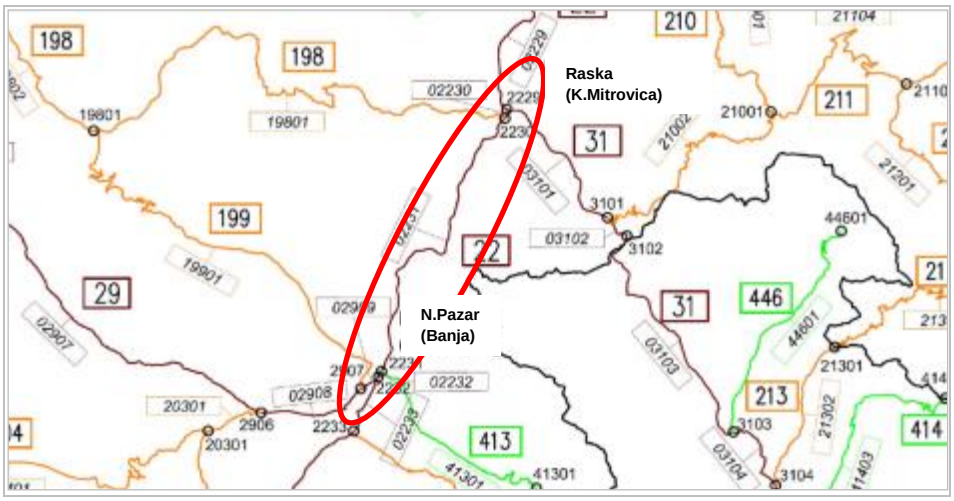


Figure1. The location of the subject section according to the state roads reference system map, December 2015

The works planned by this design will be implemented within the right-of-way of the existing road. The project **neither entails resettlement and land acquisition as defined by Operational Policy (OP) 4.12**, nor long lasting disruptions to the natural environment and human settlements and activities.

Rehabilitation Works Description

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

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

In accordance with the Terms of Reference and site visits, the design will specify the construction of appropriate solutions for rehabilitation and development of the structures in the road base. The width of the carriageway and bridge paths (traffic profile) will remain unchanged regarding their dimensions compared to the current state.

The ToR required the regulation of river beds on the following locations:

- The Bisina River ~ km 240+593
- Creek in front of Batnjik ~ km 244+650
- The Jovska River ~ km 248+870.

The regulation of river beds of watercourses involves slope lining and lining the bottom of the riverbeds 20 m in length, taking into account both sides, in relation to the bridge. The flow profile of the watercourse will be temporary reduced and works will be performed during the period of the lowest water level.

These types of works are described in detail in the following chapter - ***1. Project description; Rehabilitation works description.***

Policy, Legal and Administrative Framework

The Ministry of Environmental Protection (MoEP) is the key institution in the Republic of Serbia responsible for formulation and implemention of environmental policy matters. The other aspects of environmental protection connected to road rehabilitation projects, have been dealt with several other institutions, among which are the Institute for Nature Conservation of Serbia, Institute for Protection of Natural Monuments Kraljevo, PWC ,,Srbijavode'', WC „Morava“ Cacak and Public Enterprise “Roads of Serbia” (PERS).

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

Environmental protection in the Republic of Serbia is regulated by various laws at the national and municipal levels as well as by statutes. Environmental Impact Assessment is not required for road rehabilitation projects, except in cases where the section passes through protected natural or cultural area.

Based on the decision issued by the Ministry of Environmental Protection (number 011-00-00263/2018-03 from April 2nd, 2018), the subject section is not located within the protected area for which the environmental protection procedure was conducted or initiated. Therefore, it **does not require making the Environmental Impact Assessment** (Appendix 6).

Lender requirements that are applied to this project of road rehabilitation include the following Environmental Policies:

- Operational Policy OP (4.01) of Environmental Impact Assessment,
- European Investment Bank (EIB): Statement of Environmental and Social Principles and Standards (2008).

The World Bank and EIB require that the design complies with the Republic of Serbia national laws, EU standards and IFI's guidelines as noted above.

Baseline Conditions Assessed During Route Survey

There are 67 culverts on the section (15 pipe, 38 arched, 6 slab, 1 combined and 7 inaccessible culverts), as well as a certain number of abutment walls (different types and different dimensions). Also, a great number of delevelling on places where road section crosses watercourses and roads of lower class is recorded.

The main element of the drainage system regarding the observed road section is a gutter (on the left side of the route), which evacuates collected runoff from the carriageway to the right side through the culverts, and then into the final recipient, the Raska River. On certain parts of the section, where the road is located on the embankment, a dispersing drainage system is used, i.e. all water from the carriageway flows down the road shoulders and embankment slopes to the surface of terrain or the perimeter canals.

As far as the historic monuments and protected resources on the subject section are concerned, according to the data from the requirements of the Institute for Protection of Natural Monuments Kraljevo (No. 338/2 from March 9th, 2018), several archaeological resources have been determined:

- Podgolis (CM Panojevice)
- Naprelje – the ruins of the church and necropolis (the city of Novi Pazar, CM Banja)
- Staro selo (CM Panojevice)
- Malo brdo (CM Panojevice)
- Gradina (CM Panojevice)

- Cemetery in Jablanicki potok[2] (CM Panojevice)
- Greek cemetery (CM Koprivnica)
- Crkvina (CM Koprivnica)
- Duvarine (CM Koprivnica).

The rehabilitation works are allowed to be done. However, they should be completed under the direct supervision of an expert in the field of archaeology in compliance with the requirements stated in the Decision. The Contractor is supposed to inform the competent institution about the date for the beginning of works.

Along the observed road sections, the following facilities have been identified:

- Orthodox cemetery from km 251+940 to km 251+990
- AD Novi Pazar Put from km 252+560 to km 252+900.

The following bus stops have been identified (an approximate chainages of bus stops are given) along the observed road section:

- Djurovici, at km 237+460
- Bisina, at km 239+600
- Kucanski potok, at km 240+740
- Veljovici, at km 241+800
- Zivkovici, at km 242+500, namely km 242+580 (the direction towards N. Pazar)
- Patricevici (the suggested chainage for the new location at km 244+200)
- Batnjik, at km 245+000 and 245+050
- Tusimlje (The Tusimska River), at km 247+100 (247+800 for the direction N. Pazar – Raska)
- Piloreta (restaurant), at km 248+050 (248+000 for the direction N. Pazar – Raska)
- Kozarevo (tractors wholesale), at km 249+350 (249+350 for the direction N. Pazar – Raska)
- Trnavci (in front of the sign 'OXA'), at km 250+150 (250+150 for the direction N. Pazar – Raska)
- OXA (hotel), at km 250+850 (250+850 for the direction N. Pazar – Raska)
- Filipovici (near the cemetery), at km 251+600 (over a bridge at km 251+500 for the direction N. Pazar – Raska)
- Banjska interchange (Save Kovacevica street), at km 253+850 (253+750 for the direction N. Pazar – Raska).

The existing footways and bicycle paths are not identified on the subject section.

Current traffic load (AADT) for this road section 02230 is 5531 vehicles per day, while for the section 02231 is 6273 vehicles in 2017.[3] It is necessary to improve traffic safety in the bus stop zones on this section.

[2] Translator's note: This is the name of the place.
[3] http://www.putevi-srbije.rs/images/pdf/brojanje/2017/tabela-saobracajnog-opterecenja-na-drzavnim-putevima-IB-reda.pdf

Summary of Environmental Impacts

The works on road rehabilitation on the road section Raska (K. Mitrovica) – Novi Pazar (Banja) will have a smaller impact on the environment (B category of environmental protection). Most of the impacts are of a temporary character and they will disappear after the works on heavy maintenance, i.e. when road rehabilitation has been completed.

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

The EMP refers to the phase of execution of works and its implementation is a future obligation of the Contractor. During the execution of construction activities, there may be disruption of current traffic flow, movement of the inhabitants of the neighbouring settlements, reduced roadway safety, damages to access roads, noise production, dust, waste and air pollution, impact on soil, water, plant and animal life. Off-site activities include quarries, asphalt bases and borrow pits which may cause localized adverse impacts. Therefore, it is necessary to manage those works properly.

Environmental Management Plan

Environmental impacts of the project for heavy maintenance on the road section Raska (K. Mitrovica) – Novi Pazar (Banja) will be insignificant and reversible. Mitigation measures provided in the EMP, related to the design, road rehabilitation and operational phase, must be properly implemented. The EMP consists of the Environmental Mitigation Plan and Environmental Monitoring Plan. It is based on the types of environmental impact, their scope and duration.

During the rehabilitation, the Contractor will work according to the Contractor's Environmental Plan (CEP) based on the EMP.

PERS is in charge of designing, supervision and execution of works applying the EMP.

Mitigation Plan

Impacts and proposed mitigation measures have been compiled into the Environmental Mitigation Plan (Appendix 1). It summarizes all the anticipated environmental impacts and its associated mitigation measures during the design, rehabilitation and operational phases. It makes reference to the preliminary conditions issued by the authorized institutions (Institute for Nature Conservation of Serbia, Institute for Protection of Cultural Monuments Kraljevo, PWC "Srbija vode"), law and contract documents, approximate location, time frame and the responsibility for its implementation and supervision.

Monitoring Plan

A Monitoring Plan for the proposed Project (Appendix 2) has been prepared. The main components of the Monitoring Plan are the following:

- Defining the environmental issues that need to be followed and the means of verification:
- Specific areas, locations and parameters to be monitored;
- Applicable standards and criteria;
- Monitoring noise levels near populated areas;
- Monitoring material supply (verification of valid licenses);
- Duration, frequency and evaluation of monitoring costs; and
- Institutional responsibility for monitoring and supervision.

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

Stakeholder Engagement – Information Disclosure, Consultation and Participation of Public

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

All problems associated with the subject section are recorded, based on official contacts and memos, as well as on the meetings with the representatives of local authorities. In order to complete the design, the Designer received the following from the relevant institutions:

- Spatial Plan of Raska and Novi Pazar Municipality,
- Excerpts from the General Urban Plan,
- The General Regulation Plan,
- Decisions on Bus Stop Locations,
- Opinions on Rehabilitation.

The Summary of Public Disclosure Process

During the preparation of EMP and before the commencement of works, public hearings will be organized in accordance to the requirements of the Security Policy of Security Council. The EMP and other information connected to the project will be

presented to public and available at the local level. The entire documentation will be delivered to the municipalities, published on the website, placed on the PERS internet presentation and published in media.

The public will be informed through the local media about the time and place for holding hearings in public.

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

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

1. PROJECT DESCRIPTION

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

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

The institution in charge of realization of the Project is Public Enterprise “Roads of Serbia” (hereinafter called PERS). Within PERS, a Project implementation team (PIT) was formed, which should conduct all the necessary activities for successful management and completion of the Project, with the help of other professional departments in the company and in cooperation with the other interested institutions of the Government of the Republic of Serbia.

The main goal of the project is increasing traffic safety on the State Road IB no. 22 section: Raska (K. Mitrovica) – Novi Pazar (Banja).

Section Description

The observed road section belongs to the Raska administrative district located in the Southwestern part of the Republic of Serbia. The section Raska (K. Mitrovica) – Novi Pazar (Banja), 17.974 km in length belongs to the State Road IB no. 22 (the old road mark is M-22) (“Official Gazette of RS”, No. 93/2015) and it represents the part of the road that connects Kraljevo and Novi Pazar. Moreover, the subject section is a part of the Project intended for heavy maintenance within the third year of its implementation. All chainages in the Terms of Reference are given in accordance to the new Reference system from December 2015. An excerpt from the Reference system is given in **Error! Reference source not found.**

Table 1. The traffic sections and nodes according to the Reference System

No.	Previous label of the section*	Section label	Label of the initial node	Label of the final node	Name of the initial node	Name of the final node	Length of the section (km)
1	0552	02230	2229	2230	Raska (Kosovska Mitrovica)	Raska (Kuti)	0.554**
2	0553	02231	2230	2231	Raska (Kuti)	Novi Pazar (Banja)	17.420**
Total:							**(17.974**)**

** Label of the section according to the old reference system 2008/2009 (JV CPL- Nievelt)*

*** Length of the section which should be repaired*

Figure 2. represents the position of the subject section within the Road reference system of the Republic of Serbia in 2015.

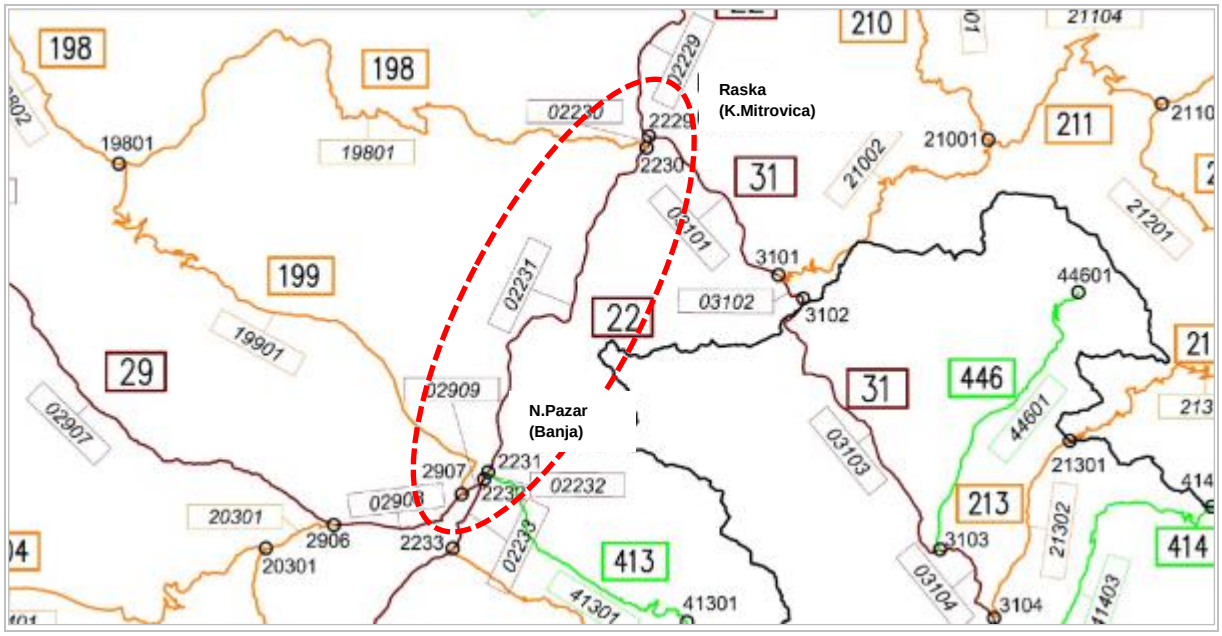


Figure 2. The location of the subject section according to the Road reference system in 2015

The works planned by this design will be implemented within the right-of-way of the existing road. The project **neither entails resettlement and land acquisition as defined by Operational Policy (OP) 4.12**, nor long lasting disruptions to the natural environment and human settlements and activities.

Figure 3. represents a scheme of the road section intended for rehabilitation (heavy maintenance).

Figure 3. The length of the road section intended for rehabilitation (heavy maintenance)

The beginning of the road section is in Raska, at the point of leaving the roundabout in the direction towards Novi Pazar (in direction of chainage increase) at the approximate chainage 236+020 (Figure 4. The beginning of the subject road section approximately at km 23.). The end of the road section is defined in Novi Pazar at the approximate chainage of 253+891 (Figure 5..).

Figure 4. The beginning of the subject road section approximately at km 236+020

Figure 5. The end of the subject road section approximately at km 253+891

The major part of the section can be characterized as an out-of-town with the passage through "industrial zones" with local access roads. Namely, the parts of the section where the road zone is occupied by the edge of certain area in the form of parking lot and service for trucks are taken into account. In these parts of the section, it is necessary to pay special attention to traffic safety as well as drainage, since the concept of drainage has been violated by unplanned construction.

Improper waste disposal was recorded on the subject section, both in the road zone, as well as in the zone of registered watercourses and the riverbed of the Raska River.

There are no existing footways and bicycle paths on the section, as well as facilities for public purpose (schools, nursery schools, cultural facilities etc.).

In the zones of registered bus stops, it is necessary to pay special attention to traffic safety.

Rehabilitation Works Description

The current width of the carriageway, without extension, is predominantly about 6.9 m. Taking into consideration edge strips, size of present and prospective traffic load and existing state of roadway surface, existing width of traffic lanes and edge strips with possible widening, namely the carriageway with two traffic lanes with belonging edge strips of existing width of 30 cm should be maintained according to the Terms of Reference (Table 2.).

Table 2. The existing traffic profile

Section	Traffic lanes	Edge strip	Number of lanes	Total carriageway width
Raska – Novi Pazar	3.45	0.30	2	7.5

The type of works planned mainly involves the reinforcement of the existing pavement structure (in some places up to a depth of 50-60 cm from the existing carriageway), within the boundaries of the road zone. Works on the improvement of the existing drainage system and all related elements are specified. The works include design of all elements that prolong the durability of done works and improve the system of traffic safety. They are completely regulated by the provision (Article 69) of the Law on Roads ("Official Gazette of RS", No. 41/2018). [4]

The design will include drafts of new solutions of the existing grade intersections. Furthermore, the locations of new bus stops will be considered in accordance with the requirements of local population and possibilities of its construction.

All intersections will be paved until the border of the road zone. Special access roads[5] are designed on the district roads, while at the intersections with local roads, the arrangement of circular arcs and opening of necessary banquettes to control the visibility will be performed, as well as the leveling of the existing roads in accordance with the projected elements of the given section.

The proposal for intervention is to organize pedestrian areas according to the requests of representatives of local community, in accordance with the available space and limitations, as well as in the zone of future bus stops.

[4] https://www.paragraf.rs/propisi/zakon-o-putevima.html
[5] Translator's note: Roads constructed in a way that prevent mud and dirt from tires from entering the main roads

The request from the representative of local authority is the construction of footways on the road section from km 236+480 to km 238+000, on the right side (chainages are approximate), as well as a new bus stop at an approximate chainage at km 236+370. In accordance with available space and limitations on the subject section, the Designer will implement the requirements of local community in the project.

Based on the site visit, as well as on the analysis related to the safety of the participants in traffic, the opinion of the Designer is that the footpaths should be foreseen on the route from km 240+700 to km 241+260 (the right side, chainages are approximate).

There are also facilities that serve to stop and park heavy goods vehicles on the observed road section. The Designer has seen the need to canalize traffic flow regarding the same facilities (way in - exit) primarily for security reasons. This refers to the part of the section from the approximate chainage from km 247+500 to km 253+891, where the most complicated problems are side construction and unregulated merging and diverging from mentioned parking lots of heavy goods vehicles.

Special emphasis will be placed on the arrangement of road shoulders and slopes, removal of trees, shrubs and vegetation on both sides in the road zone regarding the state road, which can affect the safety of all participants in traffic.

Drainage from the carriageway will be solved by placing concrete flumes at the end of the bridges in the collision zone with registered watercourses, while just drainage is done by flowing water along the curb. On the bridges with existing drains (gullies), a longitudinal pipeline will be introduced to improve the outflow from the bridge. However, the effluent in the recipient must be guided by a concrete or stone liner of the recipient's slope in order to prevent erosion of the slopes.

In accordance with the ToR and based on the site visits, the project will specify how to make the appropriate solutions for the repair and development of structures within the road base. The width of carriageway and the bridge paths (traffic profile) keep the same dimensions compared to the current state. The design will specify controlled water drainage in front of and behind the bridge, as well as the solution how to connect road shoulders to the bridge.

The proposal for the solution regarding bridges in the inhabited and uninhabited part of the section is given in the following figures.

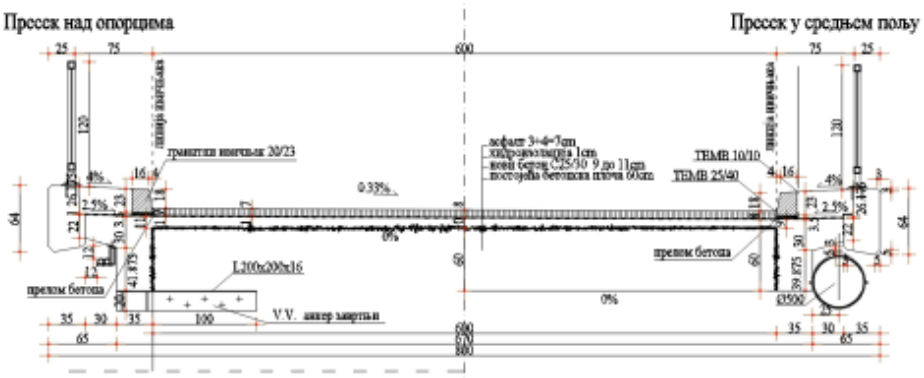


Figure 6. The proposal for the solution regarding the bridge in the inhabited part of the section

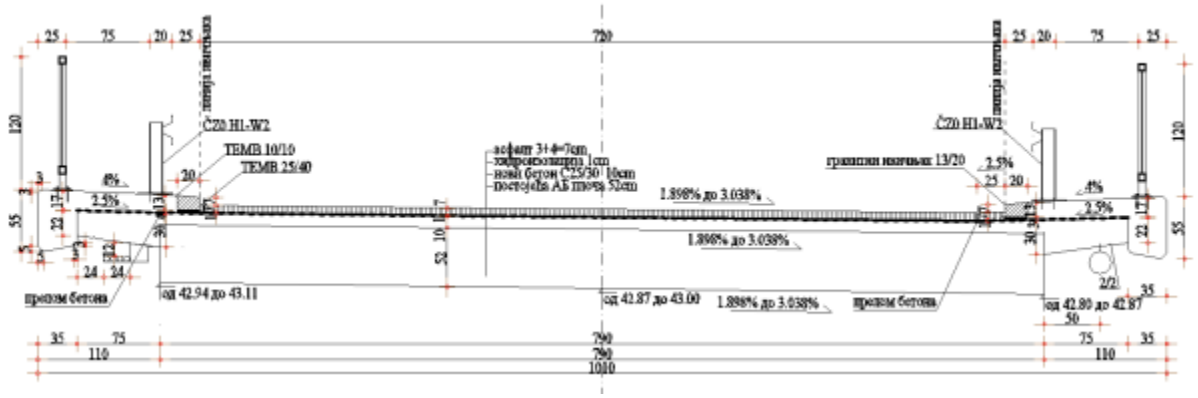


Figure 7. The proposal for the solution regarding the bridge in the uninhabited part of the section

It is necessary to ensure that there is sufficient space for pedestrian zone.

The hydraulic throughput capacity of the facilities has been checked and adequate measures will be applied with the aim of efficient and controlled discharge of atmospheric water. The required dimensions of facilities are proposed in places where existing facilities do not have sufficient throughput capacity, which will be implemented in the drainage project of the subject section.

The ToR required the regulation of river beds on the following locations:

- The Bisina River ~ km 240+593
- Creek in front of Batnjik ~ km 244+650
- The Jovska River ~ km 248+870.

The regulation of river beds of watercourses involves slope lining and lining the bottom of the riverbed 20 m in length, taking into account both sides, in relation to the bridge. The flow profile of the watercourse will be temporary reduced and works will be performed during the period of the lowest water level.

Drainage on certain parts of the section where the drainage concept has been violated in sense that existing culverts are buried or improperly extended (unplanned construction in the road zone) will be resolved by diverting and channelizing the outflow to the nearest recipient.

Traffic regulation in the zone of works will be performed:

- by using traffic signs;
- manually (a traffic control person);
- by using a traffic light.

Traffic signage that is not in accordance with the traffic conditions in the work zone will be adequately removed or covered by appropriate non-reflecting tape.

Traffic signage in the zone of works will be placed on the road and in a proper condition while works are taking place. The location on the road where the first traffic sign I-19 „construction zone“ is placed depends on the length, sight distance and visibility of the warning zone.

Temporary traffic signage in the zone of works will be completely removed from the road immediately after the works have been executed and the latest within 24 hours after the completion of works and restoration of the initial traffic regime.

It is essential to have a traffic engineer on call on the construction site at every moment that will take care about traffic signage and traffic safety in the construction site zone. During the holidays, or at the time of the execution of works, it is necessary to hire a person who will control the signalization system (ensure that the wind will not knock over the vertical signs, that the horizontal signage is always visible...) and who will react appropriately in case of any irregularities.

2. THE ASSESSMENT OF THE BASIC CONDITIONS OF THE ROUTE DURING THE RESEARCH

Based on the geodetic record and site survey, it is concluded that there are 67 culverts (15 pipe, 38 arched, 6 slab, 1 combined and 7 inaccessible culverts), as well as a certain number of abutment walls (of different types and dimensions).

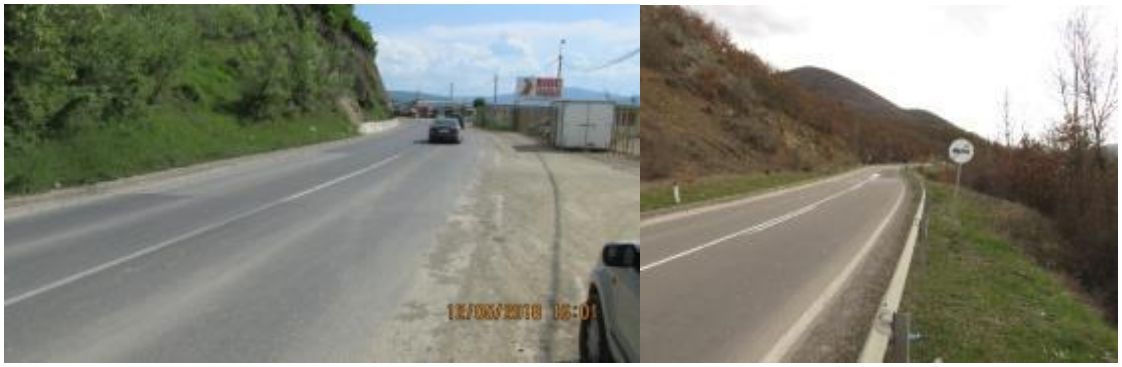


Figure 8. Typical parts of the subject section

There are also several ways of landslide control in the form of a "New Jersey" barrier. In some places, the landslide control is made by gabions. The parts of the section where this type of protection is registered are as follows:

- From km 236+590 to km 236+626 (gabion) (Figure 9.)
- From km 236+650 to km 236+713 (gabion) (Figure 9.)
- From km 236+960 to km 236+979 (Abutment wall)
- From km 238+030 to km 238+140 (Abutment wall) (Figure 10.)
- From km 243+460 to km 243+500 (Abutment wall) (Figure 10.)
- From km 245+439 to km 245+509 („New Jersey“) (Figure 11.)
- From km 245+624 to km 246+026 („New Jersey“) (Figure 11.)
- From km 246+184 to km 246+342 („New Jersey“)
- From km 251+560 to km 251+840 („New Jersey“)
- From km 252+197 to km 252+470 („New Jersey“).

Figure 9. Gabions on the subject section

Figure 10. Abutment walls on the subject section

Figure 11. "New Jersey" on the subject section

Generally, all the elements of landslide control are in good condition and possible interventions on the same will be reflected in the rehabilitation of degraded concrete surfaces or moving and assorting the segments of the “New Jersey” barrier again.

On the observed road section, there is an intersection with watercourses and roads of the lower rank on the following locations:

- The Bridge over the Ibar River at km 236+110
- The Bridge over the road to Raska at km 236+470
- The Bridge over the ditch at km 237+635
- The Bridge over the Bisina River at km 240+593
- The Bridge over Local Road at km 241+323
- The Bridge over Local Road at km 242+423
- The Bridge over Local Road at km 244+058
- The Bridge over the Creek in front of Batnjik at km 244+650
- The Bridge over the Jablanica Creek at km 244+970
- The Bridge over the Creek at km 248+870
- The Bridge over the Filipovski Creek at km 251+920
- The Bridge over the Banjska River and road at km 253+890.

In general, most bridges have a problem due to unresolved drainage system. The usual concept of drainage system regarding bridges is based on water flowing along the curb. Implementation of the outflow from the carriageway is not regulated by facilities foreseen for this purpose. Therefore, there is an intensive deterioration of bridge construction. Concrete degradation, damaged blankets on concrete, denudation of reinforcement are denoted (Figure 12.).

Figure 12. Typical damage examples on the bridges

Along the whole section, the watercourse of the Raska River is parallel with the observed road section and it represents the final recipient in terms of drainage system.

The main drainage element is a gutter (the left side of the subject section, taking into account the direction of the chainage growth), which discharge collected water from the carriageway, as well as riparian water, to the culverts which channelize water through the road base further to the right side, to the Raska River. A dispersing system of drainage was applied on the observed road section, i.e. all water from the carriageway flows down the road shoulders and embankment slopes to the surface of the terrain or the perimeter canals.

Figure 13. Gutters on the subject section

Gutters are generally in poor condition. Furthermore, there is noticeable degradation of concrete as well as damage of the curb due to the negative effect of frost. The canals are with changed cross-section and overgrown with vegetation, compared to the designed one, due to a lack of maintenance (Figure 14.). Most of outlet structures of culverts are overgrown with high vegetation.

Figure 14. Canals on the subject section

Along the observed road sections, the following industrial objects and facilities have been identified:

- Petrol station „M petrol“ at km 249+720 (Figure 15.)
- Petrol station „CryoGas“ at km 251+520 (Figure 16.)
- Orthodox cemetery from km 251+940 to km 251+990 (Figure 17.)
- AD Novi Pazar Put from km 252+560 to km 252+900 (Figure 18.).

Figure 15. Petrol station "M Petrol" at km 249+720

Figure 16. Petrol station "CryoGas" at km 251+520

Figure 17. Orthodox cemetery on the chainage from km 251+940 to km 251+990 on the right side of the subject road section

Figure 18. AD Novi Pazar Put from km 252+560 to km 252+900 on the right side of the subject road section

In the last third of the subject section, there is a mutual construction which consists of parking lots for trucks and places for truck wash (Figure 19.). The main problem of this construction is the direct impact on the drainage system of this part of the section. A large number of outlet culverts on this section are cluttered, while some culverts on the right side are inadequately extended by pipes of a smaller diameter.

Figure 19. Parking lots for trucks in the road zone

The drainage concept of this part of section has been violated and the problem of drainage system will be in a special focus at the level of the Main Design.

Improper waste disposal was recorded on the observed road section, both in the road zone, as well as in the zone of registered watercourses and the riverbed of the Raska River. Concerning some locations, the disposal of waste is expressed to the extent that it can be characterized as an illegal dumping area (waste dump). This phenomenon is noticeable along the whole section. However, it is more emphasized in the second half of the section (Figure 20.).

Figure 20. Illegal dumping areas on the subject section

When it comes to pollution and noise source on the subject section, the identified sources are related to industrial facilities of AD Novi Pazar Put (Figure 18.), as well as the existing road as a linear source of noise and pollution.

Settlements

The municipality of Raska is located in the Southwestern part of Serbia, the administrative district of Raska. The municipality of Raska is in the meridian direction along the Ibar valley, in the north connected with the Z. Morava valley and Sumadija by road and railway and in the south with Kosovo and Metohija. It is connected with Zupa Aleksandrovac and Toplica in the east, along the Valley of the Josanica River and Montenegro and Novi Pazar in the southwest, along the valley of the Raska River which belongs to the Raska region. There are 55 km of main roads and 113.03 km of regional roads regarding the territory of municipality. Namely, 151.42 km of the road is with asphalt base, 5.61 km of the road with macadam and about 6 km of the

road is with earthbase. In addition, a network of local roads has been built in length of 386 km.

The municipality consists of 61 settlements: Raska, Badanj, Baljevac, Bela Stena, Belo Polje, Beoci, Biljanovac, Binice, Biocin, Borovice, Boce, Brvenik, Brvenik Naselje, Brvenica, Varevo, Vojmilovici, Vrtine, Gnjilica, Gostiradice, Gradac, Draganici, Zerdje, Zutice, Zarevo, Josanicka Banja, Kaznovici, Karadak, Kovaci, Kopaonik, Korlace, Kravice, Kremici, Krusevica, Kurici, Kucane, Lisina, Lukovo, Milatkovici, Mure, Novo Selo, Nosoljin, Orahovo, Pavlica, Panojevici, Piskanja, Plavkovo, Plesin, Pobrdje, Pokrvenik, Pocesje, Radosice, Rakovac, Rvati, Rudnica, Sebimilje, Semetes, Supnje, Tiodze, Trnava, Crna Glava and Sipacina.

Novi Pazar is located 297 km away from Belgrade in the south, on the section of the old road that leads through the Ibar highway towards Podgorica and the Adriatic Sea. It is located in the valley of the Josanica, Raska, Dezevska and Ljudska rivers, at the elevation of 496 m. It is surrounded by high mountains Golija and Rogozno and the Pester Plateau.

The Municipality of Novi Pazar consists of 100 inhabited places: Alulovici, Bajevica, Banja, Bare, Batnjik, Bekova, Bele Vode, Boturovina, Brdjani, Brestovo, Varevo, Vever, Vidovo, Vitkovice, Vojkovici, Vojnice, Vranovina, Vucinice, Vucja Lokva, Golice, Gornja Tusimlja, Gosevo, Gradjanovici, Gracane, Grubetice, Dezeva, Dojinovice, Dolac, Doljani, Dragocevo, Dramice, Zunjevice, Zabrdje, Zlatare, Ivanca, Izbica, Jablanica, Javor, Janca, Jova, Kasalj, Kovacevo, Kozlje, Koprivnica, Kosurice, Krusevo, Kuzmicevo, Leca, Lopuznje, Lukare, Lukarsko Gosevo, Lukocrevo, Miscice, Mur, Muhovo, Negotinac, Novi Pazar, Odojevici, Okose, Osaonica, Osoje, Oholje, Pavlje, Paralovo, Pasji Potok, Pilareta, Pobrdje, Pozega, Pozezina, Polokce, Pope, Postenje, Prcenova, Pusta Tusimlja, Pustovlah, Radaljica, Rajetice, Rajkovice, Rajcinovice, Rajcinovicka Trnava, Rakovac, Rast, Sebecevo, Sitnice, Skukovo, Slatina, Smilov Laz, Srednja Tusimlja, Stradovo, Sudsko Selo, Tenkovo, Trnava, Tunovo, Hotkovo, Cokovice, Casic Dolac, Savci, Saronje and Stitare.

The subject road section goes through the following cadastral municipalities:

- CM Raska
- CM Supnje
- CM Kucane
- CM Panojevice
- CM Batnjak
- CM Pozezina
- CM Postenje
- CM Banja.

The subject road section goes through the following inhabited settlements:

- Raska
- Supnje

- Kucane
- Postenje.

Natural Resources and Cultural Heritage

As far as the historic monuments and protected resources are concerned on the observed road section, according to the data from the conditions of the Institute for Protection of Cultural Monuments Kraljevo, there are several archaeological resources such as:

- Podgolis (CM Panojevice)
- Naprelje – the ruins of the church and necropolis (the city of Novi Pazar, CM Banja)
- Staro selo (CM Panojevice)
- Malo brdo (CM Panojevice)
- Gradina (CM Panojevice)
- Cemetery in Jablanicki potok (CM Panojevice)
- Greek cemetery (CM Koprivnica)
- Crkvina (CM Koprivnica)
- Duvarine (CM Koprivnica).

According to the conditions of the Institute for Protection of Cultural Monuments Kraljevo, neither the precise locations of archaeological sites, nor the general map of the aforementioned sites are available.

Works near archaeological sites are allowed, with the obligatory presence of an expert in archaeology, in compliance with the conditions stated in the Decision. The Contractor must inform the competent institution about the date and time of the commencement of works.

Bicycle and Pedestrian Traffic

Regarding the observed road section, existing bicycle paths or footways are not identified.

The following bus stops have been identified along the subject section (approximate chainages of bus stops are given) and based on this information, an increased concentration of pedestrians is expected on the subject section:

- Djurovici, at km 237+460
- Bisina, at km 239+600
- Kucanski Creek, at km 240+740
- Veljovici, at km 241+800
- Zivkovici, at km 242+500, actually km 242+580 (the direction towards Novi Pazar)
- Patricevici (suggested chainage for the new location at km 244+200)
- Batnjik, at km 245+000 and 245+050

- Tusimlje (The Tusimska River), at km 247+100 (247+800 for the direction N. Pazar – Raska)
- Piloreta (restaurant), at km 248+050 (248+000 for the direction N. Pazar – Raska)
- Kozarevo (tractors wholesale), at km 249+350 (249+350 for the direction N. Pazar – Raska)
- Trnavci (in front of the sign 'OXA'), at km 250+150 (250+150 for the direction N. Pazar – Raska)
- OXA (hotel), at km 250+850 (250+850 for the direction N. Pazar – Raska)
- Filipovici (near the cemetery), at km 251+600 (over the bridge at km 251+500 for the direction N. Pazar – Raska)
- Banjska interchange (Save Kovacevica street), at km 253+850 (253+750 for the direction N. Pazar – Raska).

There are not existing footways on the observed road section. It is necessary for the project to foresee the construction of bus stops with all belonging elements (canopies or station roofs, pedestrian approaches to bus stops, adequate vertical and horizontal signalization...).

The proposal for the intervention is the formation of organized pedestrian areas according to the requests of representatives of local community, in accordance with the available space and limitations, as well as in the zone of future bus stops.

The request from the representative of local authority is the construction of a footway on the part of the road section from km 236+480 to km 238+000, on the right side (approximate chainage), as well as a new bus stop at km 236+370 (approximate chainage). In accordance with the available space and limitations on the observed road section, the Designer will implement the requirements of the local community in the project.

Railway Traffic

There is no railway traffic identified on the observed road section, as well as grade separated intersection with the road.

Watercourses

There are several intersections with registered watercourses from Raska to Novi Pazar on the observed road section foreseen for the rehabilitation. The Raska River, as the final recipient, runs parallel to the entire length of the observed road section.

On the observed road section, there is an intersection with watercourses on the following locations:

- The Bridge over the Ibar River at km 236+110 (Figure 21.)
- The Bridge over the Bisina River at km 240+593 (Figure 22.)
- The Bridge over the Creek in front of Batnjik at km 244+650
- The Bridge over the Jablanica Creek at km 244+970 (Figure 23.)

- The bridge over the Creek at km 248+870
- The bridge over the Filipovski Creek at km 251+920
- The bridge over the Banjska River and Road at km 253+890 (Figure 24.).

Figure 21. The Bridge over the Ibar River

Figure 22. The Bridge over the Bisina River

Figure 23. The Bridge over the Jablanica Creek

Figure 24. The bridge over the Banjska River and road

It is important to note that rehabilitation of bridges over watercourses will not affect the riverbed for a long time.

The ToR required the regulation of river beds on the following locations:

- The Bisina River ~ km 240+593
- Creek in front of Batnjik ~ km 244+650
- The Jovska River ~ km 248+870.

The regulation of river beds of watercourses involves slope lining and lining the bottom of the riverbeds 20 m in length, taking into account both sides, in relation to the bridge. The flow profile of the watercourses will be temporary reduced and works will be performed during the period of the lowest water level.

According to the Regulation on Water Classification ("Official Gazette of RS", No. 5/68), the Ibar and Raska Rivers belong to natural watercourses and waters of the second class.

Both rivers, considering the water quality, belong to the second class of water suitable for swimming, recreation and water sports, for the cultivation of less valuable fish species and with the usual methods of treatment (coagulation, filtration and disinfection) can be used for drinking and industry (The Regulation on Water Classification," Official Gazette of RS", No. 5/68).

Culverts

Based on the geodetic and site survey, it is concluded that there are 67 culverts (15 pipe, 38 arched, 6 slab, 1 combined and 7 inaccessible culverts).

All the recorded culverts on the section are presented in Table 10.

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

No	Chainage	Shape	Cross section	Material
1	236+788	Arched	H=1000mm	Concrete
2	236+824	Arched	H=1000mm	Concrete
3	236+895	Pipe	Ø1000mm	Concrete pipe
4	236+957	Slab	H=800mm B=1000mm	Concrete
5	237+280	Arched	H=1600mm B=2000mm	Concrete
6	237+348	Arched	H=1000mm	Concrete
7	237+475	Slab	H=1600mm B=2000mm	Concrete
8	238+157	Arched	H=1000mm B=1000mm	Concrete
9	238+292	Arched	H=1000mm B=1000mm	Concrete
10	238+490	Arched	H=1000mm B=1000mm	Concrete
11	238+669	Arched	H=1600mm B=2000mm	Concrete
12	238+766	Arched	H=1000mm	Concrete
13	238+916	Arched	H=3200mm B=4000mm	Concrete
14	239+172	Slab	H=2850mm B=3000mm	Concrete
15	239+320	Arched	H=1000mm B=1000mm	Concrete
16	239+472	Pipe	Ø1000mm	Concrete pipe
17	239+720	Arched	H=1000mm	Concrete
18	239+998	Arched	H=1000mm B=1000mm	Concrete
19	240+279	Arched	H=1000mm B=1000mm	Concrete
20	241+024	/	/	/
21	241+492	Arched	H=1300mm B=2000mm	Concrete
22	241+587	/	/	/
23	241+852	Arched	H=1000mm B=1000mm	Concrete
24	242+091	Arched	H=2000mm	Concrete
25	242+665	Slab	H=2300mm B=4000mm	Concrete
26	242+917	/	/	/
27	243+045	Arched	H=1000mm	Concrete

No	Chainage	Shape	Cross section	Material
28	243+587	/	/	/
29	243+847	/	/	/
30	244+472	Pipe	Ø500mm	Concrete pipe
31	244+962	Pipe	Ø1000mm Ø500mm	Concrete pipe
32	245+196	Pipe	Ø1000mm	Concrete pipe
33	245+293	Slab Pipe	H=1200mm B=2000mm Ø500mm	Reinforced concrete Concrete pipe
34	245+423	Arched	H=1000mm	Concrete
35	245+549	Arched	H=1000mm	Concrete
36	245+728	Arched	H=1000mm	Concrete
37	246+077	Arched	H=2200mm B=2000mm	Concrete
38	246+728	Pipe	Ø600mm	Concrete pipe
39	247+003	Arched	H=1700mm B=2000mm	Concrete
40	247+119	Pipe	Ø1000mm	Concrete pipe
41	247+525	Pipe	Ø750mm	Concrete pipe
42	247+738	Pipe	Ø1000mm	Concrete pipe
43	248+458	Pipe	Ø900mm	Concrete pipe
44	248+556	Pipe	Ø900mm	Concrete pipe
45	248+723	Pipe	Ø1000mm	Concrete pipe
46	249+332	Arched	H=1000mm	Concrete
47	249+554	Arched	H=1000mm	Concrete
48	249+784	Pipe	Ø1000mm	Concrete
49	249+952	Pipe	inlet Ø1000mm outlet Ø400mm	PVC
50	250+160	/	/	/
51	250+249	Arched	H=1000mm	Concrete
52	250+368	/	/	/
53	250+509	Arched	H=1200mm B=1000mm	Concrete
54	250+577	Pipe	Ø200mm	Concrete pipe
55	250+790	Slab	Hul=1300mm Hizl=1900mm B=3000mm	Concrete
56	250+993	Arched	H=1000mm B=1000mm	Concrete
57	251+349	Arched	H=1000mm	Concrete
58	251+543	Arched	H=1000mm	Concrete

No	Chainage	Shape	Cross section	Material
59	251+670	Arched	H=1000mm	Concrete
60	252+041	Arched	H=1000mm	Concrete
61	252+154	Arched	H=1000mm	Concrete
62	252+251	Arched	H=1000mm	Concrete
63	252+325	Arched	H=1000mm	Concrete
64	252+430	Arched	H=1000mm	Concrete
65	252+572	Slab	Hul=2100mm Hizl=2400mm B=3500mm	Concrete
66	252+854	Arched	H=1200mm B=1000mm	Concrete
67	253+167	Arched	H=1200mm B=1000mm	Concrete

Figure 25. The arched culvert at km 245+728, outlet and inlet structure of the culvert

Figure 26. The pipe culvert at km 249+784, outlet and inlet structure of the culvert

Figure 27. The slab culvert at km 250+790, outlet and inlet structure of the culvert

Majority of the culverts on the subject section are with more pronounced clogging and degradation of concrete. Inadequate extension of the culvert with a smaller diameter at the places of parking lots and places for trucks wash was recorded.

The culverts lead the evacuation of collected water from the left to the right side (in the main recipient, the Raska River). Outlet structures of the culverts are covered with high vegetation, unregulated, and generally there are no canals between the culverts and the recipient.

Grade Separated Intersection of the Road with Lower Rank Roads

There are four grade separated intersections on the observed road section (where lower rank roads cross the observed road section) on the following locations:

- The Bridge over the Road for Raska at km 236+470
- The Bridge over Local Road at km 241+323 (Figure 28.)
- The Bridge over Local Road at km 242+423
- The Bridge over Local Road at km 244+058 (Figure 29.).

Figure 28. The Bridge over Local Road at km 241+323

Figure 29. The Bridge over Local Road at km 244+058

Bridges are generally in poor condition due to unresolved drainage system. There are no flumes that will channelize water to the base of the bridge. The main project will solve the drainage system of these bridges.

Air

Within the observed road section Raska (K. Mitrovica) - Novi Pazar (Banja), there are current resources of air pollution based on the site visit. This is the facility related to the company Novi Pazar Put (Figure 18.). There is a noticeable accumulation of dust on vegetation and surrounding objects. The data on the values of air pollution which were measured on the observed road section were not available.

Based on the experience and expected traffic intensity during and after planned rehabilitation works, on the corridor of the observed road section, a larger increase in traffic intensity is not expected, nor an increase in the level of air pollution as a product of exhaust gases.

It is expected to have the temporary increase in the concentration of pollutants in the air during the road rehabilitation phase.

Noise

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

3. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Relevant Institutions

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

The other aspects of environmental management related to road rehabilitation projects are dealt by several other institutions, among which are the Institute for Nature Conservation of Serbia and the Institute for Protection of Cultural Monuments of Kraljevo, as well as the PERS.

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

- Institute for Protection of Cultural Monuments Kraljevo No. 338/2 dated from March 9th, 2018
- Institute for Nature Conservation of Serbia No. 20/1853/3 dated from September 7th, 2017
- Ministry of Environmental Protection, No. 011-00-00263/2018-03 dated from April 2nd, 2018
- Public Water Management Company „Srbijavode", WC „Morava" Nis, No. 1952\1 dated from May 21st, 2018.

Existing Serbian Legislation

Environmental protection in the Republic of Serbia is regulated by various laws and by-laws at national and municipal level. The environmental legislation in force in Serbia is summarized in Appendix 3.

The Procedure of Environmental Impact Assessment in the Republic of Serbia

In the juridical system of the Republic of Serbia, the EIA procedure is regulated by the Law on Environmental Impact Assessment ("Official Gazette of RS" Nos. 135/2004, 36/2009), which is completely in accordance with the European EIA Directive - 85/337/EEC. Therefore, the EIA study is not necessary for road rehabilitation projects, except for those sections which are located within or in the vicinity of natural and cultural protected areas. In this case the proponent of the design needs to submit the request for making a decision about the need for making the Environmental Impact Assessment to the relevant ministry. Depending on the estimation and significance of potential environmental impacts, the decision is made about whether it is necessary to conduct the full procedure of Environmental Impact Assessment.

The request for decision on the need for EIA with other accompanying documentation has been submitted to the Ministry of Environmental Protection (MoEP).

The decision states that projects of urgent maintenance, rehabilitation and removing road damages **are not** on the List of projects for which the EIA is required or for which the EIA can be required ("Official Gazette of RS" No. 114/08).

The approval has been obtained from The Ministry of Environmental Protection (MoEP) (No. 011-00-00263/2018-03 dated April 2nd, 2018) that **it is not necessary to conduct the EIA study.**

On the basis of the aforementioned criteria, this project does not require the EIA study. However, **the policy of the World Bank requires the development of a partial evaluation - EIA and a preparation of the specific EMP for the construction site.**

Relevant International Financial Institutions (IFIs) – Policies and Statements

IFIs request that the following requirements must be applied to any works:

- World Bank: Operational Policy OP 4.01, Environmental Impact Assessment, which requires a partial Environmental Impact Study and development of site specific EMPs for projects belonging to Category B;
- EIB: Statement of Environmental and Social Principles and Standards (2008).

EIB requires that the project complies with the Republic of Serbia national laws and EU standards. However, the regulations of the Republic of Serbia do not provide the design for EMP for this type of investment, while the World Bank policy requires a partial EIA and EMP for each section.

4. SUMMARY OF ENVIRONMENTAL IMPACTS

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

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

The works on road rehabilitation on the section Raska (K. Mitrovica) – Novi Pazar (Banja) will have a smaller impact on the environment (B category of the environmental protection). Most impacts are temporary and will disappear after the completion of works on heavy maintenance i.e. road rehabilitation.

The road maintenance works will be performed entirely on public land, without any collision with private properties. In respect with the provisions of WB OP 4.12

(Involuntary Resettlement), the Design does not require any acquisition of land, resettlement or long-term disturbance of human activities.

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

Overview of Key Impacts

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

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

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

Noise and Air Pollution within Residential Areas

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

In the phase of the execution of works (in the period when the type of works is expected to have increased dust emission), the construction site needs to be wet with the aim of reducing dust emission. It is necessary to have at least two tanks of water on the construction site, one of which is a backup one. In this way the “idle time” will be avoided when the tanks are refilled with water.

It is obligatory to cover the truckloads.

Noise caused by rehabilitation works is temporary. Since there are no significant residential buildings near the road, it can be concluded that the noise prevention barriers will not be used in this project. The sound barriers can be placed only on places where it is “reasonable” and “useful”. This is not the case with this road rehabilitation project.

Restrict work site construction for the period from 07:00 am to 05:00 pm, especially during the execution of works in the inhabited part of the section.

Potential Water Contamination

Water pollution may occur on the construction site, on the locations where the equipment, vehicles and machinery are washed, as well as on parking lots. The contaminated water shall be filtered through a gravity oil-water separator. The Contractor shall use absorbent materials and remove the contaminated layer of soil, which is then transported to a location defined in the Law on Water ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 101/2016).

The Contractor is obliged to wash the vehicles in the registered vehicle washing place. The possible soil and watercourses pollution will be avoided near construction sites in this way.

Potential Cumulative Impacts

The execution of works on heavy maintenance on the road section Raska (K. Mitrovica) - Novi Pazar (Banja) can have some temporary cumulative impacts (noise, air pollution, water and soil pollution), and they will not cause a significant impact on the environmental conditions.

Other Impacts

- Social impacts: in the construction phase social-economic conflicts are taken into consideration, including health and safety. All temporary locations used for activities that have short-term impact are included, such as quarries and borrow-pits, locations for stockpiling surplus soil and asphalt plants are included here. Impact of these types of activities is expected to cease when the Project is ended and the Contractor leaves the subject location;
- Pollution: during the heavy maintenance works, a steady, but not significant emission of pollutants is expected. These include: air pollution, water pollution, soil pollution, noise and vibrations;
- Solid waste: activities on the heavy road maintenance are expected to generate a certain amount of solid waste, which is collected on the site and transported onto a landfill, outside the site construction zone.

According to the Local Waste Management Plan, adopted by the Municipal Assembly of Raska on May 7th, 2010, the municipal waste landfill located in

Razdolje is designated as a place where construction waste and waste from demolition of buildings will be disposed. Also, this decision stipulates that the owner of construction waste can use it for filling depressions and excavations, on condition that the owner previously obtains a positive opinion of the environmental inspector and that, after filling depressions, the arrangement and recultivation of those areas are performed.[6]

[6] http://www.sepa.gov.rs/download/UpravOtpad/RaskaLPUO.pdf

5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the road section Raska (K. Mitrovica) - Novi Pazar (Banja) will be insignificant and reversible. Mitigation measures provided in the EMP, relating to the design, road rehabilitation and operational phase, must be implemented appropriately. The EMP consists of Mitigation Plan and Monitoring Plan. It is based on the types of environmental impact, their scope and duration. PERS manages the design, supervision and execution of works applying the EMP.

A. MITIGATION PLAN

Impacts and proposed mitigation measures have been compiled into the Environmental Mitigation Plan (Appendix 1). It summarizes all the anticipated environmental impacts and its associated mitigation measures during the design, rehabilitation and operational phases. It makes reference to the preliminary conditions issued by the authorized institutions (Institute for Nature Conservation of Serbia, Institute for Protection of Cultural Monuments Kraljevo, PWC “Srbija vode”), law and contract documents, approximate location, time frame and the responsibility for its implementation and supervision.

The Contractor’s Management

The recommendations and proposed mitigation measures for the negative impact on environment, as shown in **Error! Reference source not found.**, represent the commitment of the Contractor. Mitigation measures will be incorporated as an integral part of the design and execution of works on heavy maintenance, and as such, their costs will be included in the rehabilitation price.

The EMP is a part of works program and the Contractor shall apply it through qualified and experienced staff that will be responsible for fulfilling the requests connected to the environmental protection from EMP. The Contractor and his subcontractors will work entirely in compliance with the laws of the Republic of Serbia, EU standards and the requests of the Creditor.

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

The Contractor is obliged to confirm that:

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

Site Organization Plan

Contractor shall carry out and follow the Site Organization Plan. Conditions issued by INCRS shall be included in the Site Organization Plan. Location of the facilities (warehouses, workshops, asphalt and concrete plant etc.) shall be approved by an engineer who is always present. The following conditions have to be met when selecting the location and organizing the site:

- Temporary locations for storing the construction and other material and equipment must be outside the area of the Raska, Ibar, Bisina and Banjska rivers and area with high vegetation and limited only to the duration of the works;
- Temporary or permanent locations must be provided (the existing organized communal facilities/ landfills) for disposal and deposing muck and other waste in any form, as well as communal waste produced during the works. Waste disposal/dumping in the river bank area and the river bank of Raska, Ibar, Bisina and Banjska Rivers, as well as smaller temporary watercourses, and on the agricultural land shall be prohibited;
- After the completion of the works, all areas, which were in any way degraded by construction and other works, should be remedied as soon as possible (levelling and resoiling degraded surfaces up to the level and condition in which this area was found before the beginning of works);
- During the execution of works should be strictly adhere to the corridor of the road so that when handling vehicles and machines, no consequences are left to the wider area;
- During the works on the road that is located along the rivers Raska, Ibar, Bisina and Banja Rivers or smaller temporary watercourses, the banks and river bank vegetation should be preserved as much as possible, in other words it is forbidden to destroy the wild species and disturb their habitats;
- During the execution of works, it is forbidden to dispose and leave any kinds of waste neither in the zone of the Raska, Ibar, Bisina and Banja Rivers nor in any other watercourse;
- In the zone of crossing the road across the watercourse (bridges on the Raska, Ibar, Bisina and Banjska Rivers or smaller temporary watercourse), where it is necessary to make arrangements in accordance with the design, the use of stones and other natural materials should be anticipated thus largely avoiding the use of concrete on the banks and beds of river courses;
- Vehicle and machinery servicing on the road section shall be prohibited. In the situation of a road traffic accident resulting in oil or service fluids spillage the road area must be cleaned, rehabilitated and reinstated (removing the contaminated soil layer, and then levelling and topsoiling the surface);
- The works must be performed only during the day from 07:00 am to 05:00 pm on the parts where the section is located in a populated area to

minimize the impact of noise from local construction machines and vehicles;

- Envisage the setting up of the protective fences and pedestrian crossings and passages at the places where it is most appropriate, especially on the locations near settlements, on the basis of the Temporary Traffic Signalization Project;
- Maintain the maximum level of communal hygiene throughout the works along the entire route. Define the locations for placement of containers for temporary disposal of waste within the roadside area (to locate containers for the temporary disposal of municipal waste on road extensions on the roadway) and to ensure their emptying on a daily basis, at the end of the working day;
- The area for Contractor's facilities must be of the smallest possible size, to avoid unnecessary removal of vegetation;
- All Contractor's facilities should be fenced appropriately;
- Appropriate drainage of the construction site must be provided. Asphalt areas including locations used for parking lot, workshops and fuel storages must be drained toward the oil-water separator;
- Sanitary waste water and polluted water must be treated before water is discharged into the recipient (surface water flow system), in compliance with the Law on Waters ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 101/2016);
- Fuel storage areas must not be located within 20 m of a water course;
- Where fuel in excess of 5,000 litres is stored on site, it will be stored in sealed tanks on a concrete base that is designed to hold 110% of the tank capacity;
- All workshops must have oil and water separators;
- The Contractor must have trained staff, which is competent to handle oil and remove the consequences of an accidental spillage;
- Waste oil, oil filters and fuel must be stored on safe locations (closed reservoirs on the concrete base). When the site is ready to be closed, all contaminated soil must be excavated and replaced with a new layer of soil;
- Cleared material is to be piled into manageable sized heaps, according to disposal or re-use requirements;
- Apply a methodology for the protection and conservation of soil from the areas susceptible to erosion, in order to reduce the runoff of atmospheric water carrying erosive material from the location;
- Limit the amount of excavation to reduce soil erosion. The Contractor should provide protection measures to prevent land erosion;
- Excavations and machinery works must be avoided when the soil is damp;
- Upon the completion of works, machinery, construction material, containers and all other equipment must be removed in due time.

According to the Local Waste Management Plan, adopted by the Municipal Assembly of Raska on May 7th, 2010, the municipal waste landfill located in Razdolje is designated as a place where construction waste and waste from demolition of buildings will be disposed. Also, this decision stipulates that the owner of construction waste can use it for filling depressions and excavations, on condition that the owner previously obtains a positive opinion of the environmental inspector and that after filling depressions, the arrangement and recultivation of those areas is performed.[7]

Environmental Management Plan during the Heavy Maintenance

Bearing in mind all the identified impacts, it is necessary for the Contractor to prepare and later consciously apply CEP during the project duration in order to ensure compliance with the requirements of the legislation and the Lender.

The Contractor is required to have a qualified and experienced person in Contractor's team, who will be responsible for coherence between the works, the environment and the Environmental Management Plan. For this part of the work on the construction site, the presence of a responsible person is mandatory on a daily basis.

PERS will independently monitor the works, and if any irregularity is noticed, it will be transmitted to continuously present Supervision, and then to the Contractor.

Contractor's Environmental Plan (CEP) includes the following:

- Site Management Plan. CEP should consist of the procedures for setting up and functioning of a construction site with a view in order to preserve the local community and natural resources;
- Construction Site Organization Plan and the details about proposed measures should indicate the environmental impact caused by their placement. Description and arrangement of areas, with maintenance equipment and oil and lubricant storage facilities, including the distance from water areas;
- Oil and Fuel Storage Management Plan. CEP should cover all the procedures for storing, transporting and using oil and fuel, refueling the facilities and machines, procedures for decreasing the risk of water and soil pollution. All kinds of oil and fuel should be stored in the secondary storages whose capacity is at least 110 % and each spill should be cleaned immediately. Fuel tanks will have the equipment for the treatment of spill in order to have it cleaned as soon as possible in the case of spillage. All spills of liquids will be reported in compliance with the Plan which should be made by the Contractor. A short training of workers should be organized as a 'continuous training' as well as after each accident;

[7] http://www.sepa.gov.rs/download/UpravOtpad/RaskaLPUO.pdf

- Waste and Wastewater Management Plan. Disposal of waste materials: All the waste materials from the construction site, including barrels, wood, sand and gravel, cement bags, etc. are to be disposed in an appropriate manner. If there is no possibility for recycling, incurring some reasonable costs, these materials should be transported to the approved landfill and deposited there. According to the Local Waste Management Plan, adopted by the Municipal Assembly of Raska on May 7th, 2010, the municipal waste landfill located in Razdolje is designated as a place where construction waste and waste from demolition of buildings will be disposed. Also, this decision stipulates that the owner of construction waste can use it for filling depressions and excavations, on condition that the owner previously obtains a positive opinion of the environmental inspector and after filling depressions, the arrangement and recultivation of those areas should be performed.[8] Hazardous waste will be stored and removed from the site after demobilization, in accordance with the Law on Waste Management ("Official Gazette of RS", Nos. 36/2009, 88/2010 and 14/2016). CEP should cover the aspects of waste management, including the application of practical standards, such as reduction, re-usage and recycling. CEP is to define the final location for disposing all types of waste and show that it has been done in accordance with the law and good waste management practice. The Waste Management Plan will include, at least, details of temporary waste disposal, waste transportation and pre-treatment process that precede the final disposal or recycling. Licensed/approved organizations must be used for collecting and storing solid and liquid waste. All types of waste leaving the site must be controlled and recorded. As part of the Plan, the Contractor shall provide chain-of-responsibility forms for the waste that leaves the site. Therefore, waste controller shall keep one copy of the form, and the driver shall also have a copy, to make sure and get the signature on the final landfill. The Contractor shall keep all records for audit purposes and as a proof that this project applies the best practice and complies with the legal regulations;
- Sewage and Waste Water Management Plan in other words, for provision of sanitary latrines and proper sewage collection and disposal system to prevent pollution of watercourses;
- Soil Management Plan must define measures to be undertaken to minimize effects of wind and water erosion, measures to minimize loss of fertility of topsoil, time frames, haul routes and landfills;
- Noise – All equipment is to be licenced and approved in accordance with the EU standards. This applies to all machinery, vehicles and sites where noise and vibrations may affect susceptible receptors. In accordance with the Law on Protection against Environmental Noise (“Official Gazette of RS” Nos. 36/2009 and 88/2010), the Contractor is responsible for ensuring the noise and vibrations do not affect the local community. Even though

[8] http://www.sepa.gov.rs/download/UpravOtpad/RaskaLPUO.pdf

there is no possibility that the noise and vibrations represent a problem due to a large distance between the construction site and the communities, the Contractor shall limit his works to a period of daylight (from 07:00 am to 07:00 pm), so that there is no reason for the people from the local community to report any kind of night activities as disturbances;

- Dust Emission Reduction Plan should have the water wetting schedule for the access roads and the settlements nearby, which are located along the road that is being rehabilitated, as well as a list of machinery that is to be used. This applies to all 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. It is necessary to have at least two tanks of water on the construction site, one of which is a backup one. In such a way the "idle time" will be avoided when the tanks are refilled with water;
- Material Excavation and Extraction Location Plan as well as the reparation measures to be implemented for the areas of borrow-pits and access roads when the project is finished;
- Management Plan for In-river Works. CEP should cover procedures and plans for water habitat and safeguarding aquatic habitats during in-river works along the Raska, Ibar, Bisina and Banjska Rivers and it should be an integral part of the Construction Technology;
- Emergency Response Plan. CEP sets out the 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;
- Recultivation Plan. Cleaning and recultivation of construction sites and removal of Contractor's facilities. It is the Contractor's responsibility to address site clean-up. This includes the removal of all waste materials, machinery and any contaminated soil. The Contractor will develop a plan for handover, sale or removal of all plant, vehicles and machinery to ensure that no unserviceable items are left on the construction site, in accordance with the Law on Waste management ("Official Gazette of RS" Nos. 36/2009, 88/2010 and 14/2016). All construction sites and work areas will be rehabilitated so that these can be returned as close as possible to their previous state and uses. This includes the stabilization and landscaping of all construction sites. In accordance with the Law on environmental protection ("Official Gazette of RS" Nos. 135/2004, 36/2009 – st. law, 72/2009 – st. law, 43/2011 - CC decision and 14/2016) after the end of the work, the waste will not remain on-site. Should the Contractor fail to remove the waste, the PERS is entitled to withhold payment and arrange the clean-up and deduct the cost of the clean-up and administrative charges from the final payment.

- Plan of Environmental Grievances (grievance mechanisms and organization) which will show how local community and third parties affected by the project define complaints which are the consequence of rehabilitation and to whom these complaints should be addressed (e.g. through conversations, consultations etc.) (see Appendix 4, Project Grievance Mechanism).

Safety

The contractor should identify potential risks before the commencement of works. Provisions for emergency responses are to be included in the Construction Site Safety Plan, which shall include nomination of a person who will be immediately contacted if an accident occur. The Site Safety Plan is submitted to the Project Supervision Consultant for approval one week before the commencement of the works.

- 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” Nos. 101/2005, 91/2015 and 113/2017-st. law);
- The Contractor shall provide potable water supply, toilets and water supply for bathing to the workers;
- Safety Labour Management Plan (SLMP) prepared by PERS, is required to ensure health and safety provisions during the works on heavy maintenance;
- The Contractor shall perform all project activities by respecting the SLMP, all Serbian laws and by-laws regarding health and safety issues.

PERS and the Contractor are responsible for reporting and investigating incidents.

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

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 and health and occupational safety on site),
- all loads are secured and all loads with potential dust generating materials (e.g. excavated soil and sand) will be covered with tarpaulins,

- safety and immediate removal of any driver that ignore any of the community safety requirements,
- speed limits are respected.

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

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

Operational Phase

In the road operational phase, special attention must be paid to safety of pedestrians, by using measures for traffic deceleration in the vicinity of populated areas, improving road signs and markings, paying attention to traffic accidents that are repeated in the same places by placing a "black spot" signs. Regular road maintenance consists of the following: grass cutting, clearing of drainage systems, pothole patching and various repairs, together with regular controls and maintenance of drainage structures. Seasonal maintenance, regular maintenance of safety features and road signs will be undertaken as necessary. Major maintenance, that include resurfacing and bigger repairs are typically scheduled over periods of several years.

B. MONITORING PLAN

Monitoring plan is prepared in relation to the proposed Design (**Error! Reference source not found.**). The main components include:

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

A field monitoring checklist has been prepared based on the EMP and Monitoring plan (Appendix 2). The field monitoring checklist will be used by the supervising field engineer. The signed checklists will be provided to the PERS, who will be responsible for the follow-up and compliance reporting.

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

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING 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 of the Project and monitoring its compliance will be the task of the Project Supervision Consultant.

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

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

The Project Proponent shall do the following to ensure that the Contractor implements the proposed mitigation measures in the construction phase:

I. Clearly set out in the tender and contract documents the Contractor’s obligation to prepare the CEP and undertake environmental mitigation measures as specified in the Environmental Mitigation Plan in (**Error! Reference source not found.**) (to Contract specifications);

II. No compensation for the costs of the required environmental mitigation measures and monitoring activities in the form of the particular item in the Bill of Quantity (BoQ) shall be given to the Contractor, except for the water quality analysis and noise measurement. It shall be regarded as if the Contractor has included these costs in the other items of the BoQ. The actual costs of analysing water quality and noise measurement within the defined contract will be reimbursed to the Contractor in the form of a specific item in the total price. For non-compliance with the requested measures for mitigating the environmental impact and monitoring activities, the Contractor will receive a specific penalty in the form of demerit points. Demerit points are provided as a measure that should stimulate the Contractor to carry out his obligations in an organized and timely way and to perform his duty in a quality manner. Demerit points have in the same time two meanings - numeric and monetary. Each demerit point has associated monetary value which represents permanent payments reduction for determined noncompliance of the contracted obligations. The number of demerit points received will have a cumulative effect. If during the Contract the Contractor receives more than certain number of demerit points specified in the Contract, the Contractor will not be allowed, for a period of 2 years, to compete for any other PERS works contract. Also, if the Contractor is awarded over a specified number of demerit points, the Employer has a right to terminate the Contract. The monetary value of each demerit point, as well

as the deadlines for other possible actions by the Employer must be clearly stated in the Contract. The explanation for the application of these two measures - compensation for specific costs and penalties for non-compliance, should ensure the implementation of all required measures to mitigation of environmental impact and monitoring activities.

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

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

PERS shall also be responsible for the following:

- Implementation of the requests for environmental protection provided by: Government environmental authorities, IFIs and other institutions, Law on Environmental Protection ("Official Gazette of RS" Nos. 135/2004, 36/2009 - st.law, 72/2009 – st. law, 43/2011 – CC decision and 14/2016);
- Implementation of requests for environmental protection through Contractor's specifications;
- Supervision of the project through the consulting services for supervision and implementation of the project;
- Supervision of environmental monitoring through the consulting services for environmental monitoring;
- Preparation of the final environmental reports.

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

- taking all reasonable steps to protect the environment on and off site and avoid damage or nuisance to persons or property arising from its operations;
- maintaining conditions of safety for all persons entitled to be on site;

- provision of all lights, guards, fencing, warning signs, traffic control, looking to protect the works and other property as well as the safety and public interests.

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

Reporting Procedures

Public disclosure and the presentation of EMP will be held and the report shall be submitted within EMP.

The Contractor will prepare, as quarterly progress reports, the reports for PERS, which would present all the mitigation measures and measures for environmental protection along with the anticipated activities for monitoring, which were performed during the reporting period. The Contractor will take care of the quality of the environment, in accordance with Mitigation Plan and Monitoring Plan, which form an integral part of the EMP and will provide reports to PERS.

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

The grievance mechanism will be implemented to ensure that the complaints from local communities are appropriately addressed, corrective measures taken and complainants informed about the outcome. This applies to the complaints of all interested parties. The grievance form is shown in the Appendix**Error! Reference source not found.**, while hard copies will be available in local community centres which location will be determined by the representatives of local authorities.

6. STAKEHOLDER ENGAGEMENT – INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

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

Detailed Report on Public Consultation process will be presented within the Appendix 5 of this EMP and will include a list of identified stakeholders, which shall be updated as necessary.

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

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

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

A Grievance Mechanism will be implemented to ensure that all complaints from local communities are dealt with appropriately, with corrective actions being implemented, and the complainant being informed of the outcome. It will be applied to all complaints from affected parties. A grievance form is attached in Appendix 4, and hard copies will be made available at community centres.

The Report on Public Consultation will be presented in Appendix**Error! Reference source not found.** to this EMP.

7. REFERENCES

- Environmental Assessment Sourcebook No. 25, Environmental Management Plans, World Bank Environment Department, January 1999
- Roads and the Environment: Handbook, World Bank Environment Department
- EIB, Environmental and Social Practices Handbook, Environmental and Social Office, Version 2 24/02/2010
- EIB, Statement of Environmental and Social Principles and Standards (2008)
- EMP for the rehabilitation of roads, bridges and tunnels, under the World Bank project, Road Management and Traffic Safety Project, Republic of Srpska, Roads Directorate, Banja Luka, 2001
- Environmental Assessment Report and EMP for Serbian Transport Rehabilitation Project, report No: E866, project name/ID: YF – Transport Rehabilitation Project – No. P075207, document date November 30th, 2003

APPENDIX 1

MITIGATION PLAN

Phase	Issue	Mitigation measures	Responsibility		Comments
			Implementation	Supervision	
Pre-construction	**Main Design Phase**				
	The respect for the procedures related to the protection of the environment	The Designer obtained and implemented the conditions from the relevant institutions regarding the environmental protection (Institute for Nature Conservation of Serbia, Institute for Cultural Monuments Protection of Kraljevo and PWC „Srbijavode“) in order to avoid environmental risks during the heavy maintenance.	PERS / Main Design Consultant	Technical control / PERS	
	The choice of the location for the Contractor facilities and a construction site organization	The location must be approved by PERS. • It is forbidden to form the location (construction site) for temporary disposal i.e. storage of required construction and other material and storage, in the coastal zone of the Raska, Ibar, Bisina and Banjska Rivers, as well as the space with high vegetation. • The locations will be chosen in a way that have no impact on the environment and the local community (noise, dust, vibrations). • To minimize the size of the facilities to minimize the unnecessary removal of vegetation • Have the sanitary waste water treated before the water is discharged into the surface water system • Paved areas, including parking areas, workshops and fuel storages must be drained toward an oil-water separator and the areas for fuel storage must be located at a distance larger than 20 m away from the watercourse. • To avoid mechanical topsoil degradation. • To prevent soil erosion on site. • To limit the scope of the excavations to mitigate possible soil erosion. • To avoid excavation and machine operations in damp site conditions.	Main Design Consultant / Contractor	Supervising authority / PERS	
	Site selection for construction camps, near or within existing settlements. Impact on public health and sociological setting.	• minimum distance must be kept (buffer zone) between the site and the nearest populated area • influence of the local conditions must be taken into account (wind) to avoid or minimize harmful effects • the Contractor’s EMP defines health and safety and environmental measures • independent water and electricity supply, in addition to a medical service station with a trained employeeon the construction site must be planned	Contractor	PERS	
	Road safety issues associated with pedestrian crossing	Plan for safe and adequate pedestrian crossing facilities that will be equipped with ramps and structures that allow the use of wheelchairs, pushcarts, bicycles and prams.	Main Design Consultant	Technical control / PERS	

	Stakeholder engagement	Details of the proposed road alignment, access points and safety features will be disclosed in the locality of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered in the final design will be recorded.	PERS / Main Design Consultant	Technical control / PERS	
Construction	**Management Plans**				
	Contractor shall prepare the implementation of the Plans described in the EMP, to ensure that the legislation and Creditor's requirements have been met: – Site Organization Plan – Sewage and Waste Water management; – Grievance mechanism – Soil Management Plan – Dust Management Plan – Location of the proposed material extraction site, as well as rehabilitation measures to be implemented for the borrow areas and access roads upon project completion; – Waste and wastewater management plan in accordance with the Law on Waste Management ("Official Gazette of RS" Nos. 36/2009, 88/2010 and 14/2016) – Oil and Fuel Storage Management Plan – In-river Works Management Plan – Emergency Response Plan – Recultivation Plan – Safety and Hazard Assessment – Safety and Labour Management Plan		Contractor	Supervising authority / PERS	
Construction	**Construction Site Induction**				
	Construction site safety	All workers and visitors to the site shall be given a health and safety induction and instructed on the need to use PPE.	The Contractor's expert for H&S and environmental issues	Supervising authority	
Construction	**Material Supply**				
	Asphalt plant dust, fumes, health and safety effects, ecosystem disturbance	use the existing asphalt plants, requirement for official approval or valid operating license	Asphalt plant	Asphalt plant / Supervising Authority	Bid suppliier / Approved supplier
	Quarry: dust, health and safety of workers, ecosystem disturbance	use the existing quarries, requirement for official approval or valid operating license	Quarry	Quarry / Supervising Authority	
	Sand and gravel borrow-pits: river bed disturbance, quality of water, ecosystem disturbance	use the existing borrow pits or buy material from licensed separation facilities, requirement for official approval or valid operating license	Contractor or gravel and sand separation facility	Contractor or gravel and sand separation facility / Supervising Authority	
	Concrete plant Dust, fumes, health and safety effects, ecosystem disturbance	use the existing concrete plants or buy concrete from licensed suppliers. The material should have appropriate quality attestations	Concrete plant	Concrete plant / Supervising authority	

Construction	**Material Transportation**				
	Dust, asphalt, fumes	All trucks need to be covered	Truck operator	Truck operator / Supervising Authority	
	Stone / Dust	wet / covered truck load	Truck operator	Truck operator / Supervising Authority	
	Sand, Gravel, dust	wet / covered truck load	Truck operator	Truck operator / Supervising Authority	
	Cement, concrete	Remove the fresh concrete which was negligently spilled from the mixer from the transport roads within 6 hours.	Truck operator	Truck operator / Supervising Authority	
	Traffic noise exhaust fumes and road congestion management	Obeying the working hours (desirable 9-14 hours); the use of alternative routes to reduce the usage of the main roads to the minimum. Adequate temporary road signalization	Person in charge of transportation / truck operator	Person in charge of transportation / truck operator / Supervising Authority	
Construction	**Construction Site**				
	Negative impact of noise on the workers and local community and fauna	– To limit the activities to daylight working hours (without works between 08:00 pm and 07:00 am) or work during the specified period, but with the approval of the population and management; – Use of construction machines with equipment that reduces sound; ensure the maximum functionality of machines by regular inspections (periodic) or an exceptional technical inspection of vehicles and equipment; – To use equipment with noise mufflers, licensed and approved in accordance with the EU standards; – To use noise barriers for noisy works for those longer than one day in the same location/area.	Contractor	Supervising Authority	
	Dust	Measures to be introduces: – avoiding/reducing to a minimum dust emission; – wetting/spraying the construction site; – construction site access; – material landfills during loading/discharging activities; – covering the vehicles which carry dusty materials; – spraying/cleaning wheels of the vehicles; – limiting the speed of movement for vehicles; – cleaning the construction site.	Contractor	Supervising Authority	
	Vibrations	To limit activities to daylight working hours (without works between 08:00 pm and 07:00 am) or work during the aforementioned period, upon obtaining the permission from the inhabitants and management. Locate the equipment for earthworks as far away as possible from the vibration-sensitive receptors.	Contractor	Supervising Authority	

	Traffic disruption during construction activities	– Traffic Management Plan with measures to redirect traffic, that are easily seen or easy to follow – Including traffic police assistance if needed – Preparation of Traffic Management Plan that establishes a speed limit for construction vehicles and organizes traffic so that it is mostly performed outside the populated areas – During work execution, maximize the existing network of roads and avoid the construction of new roads for temporary use, which would further increase the fragmentation of space and existing habitats – To inform the local community about the works planned	Contractor	SupervisingAuthority / PERS	
	Reduced access to roadside activities	Provide an alternative access to roadside activities at all times.	Contractor	Supervising Authority / PERS	
	Safety of vehicles and pedestrians when / where there are no construction activities	Lighting and well-defined safety signs and protection measures.	Contractor	Supervising Authority / PERS	
	Soil and water pollution from improper material storage, management and use	– organize and cover material storage areas; – isolate the concrete, asphalt and other from the watercourse by using sealed formwork or covers; – washing the trucks for concrete and asphalt, as well as washing other machinery is to be done exclusively in registered car washes; – to organize the construction site so as to minimize the risk of generating sediments and accumulating waste water, which could cause pollution of the surrounding soil and water (consider situations such as drainage for atmospheric water, waste water collected from the structures on the construction site such as the structure for washing the wheels); – The Soil Management Plan must be prepared to control removal, storage and re-use of humus; – use local controlled measures to prevent sediment flowing into surface water and drainage canals. Some of the measures include physical obstacles such as fences for sediments, checking barriers, mulch barriers, e.g. protective leaves cover, geotextile, rock groynes and sediment basin), marking them in order to make the embankment slope optimal and the slope edges sharp (steep); – to prevent sediment flowing into surface water, slope of the soil and protection from wind erosion must also be considered, by installing fences, covers etc.	Contractor	Supervising Authority / PERS	

	Soil and water pollution from improper material storage, management and use	– Dispose waste material at a location protected from washing out, on a marked location, if not on site, then on an authorized landfill (in order to choose locations check the local waste management plan for Raska municipality. http://www.sepa.gov.rs/download/UpravOtpad/RaskaLPUO.pdf) – Storage of waste according to international best practice (IFC, EHS – General Guidelines). – Waste disposal in accordance with best international practice (IFC, EHS – general guidelines). – Apply additional measures for storing hazardous waste (such as secondary containment, limiting the access, providing PPE equipment etc.) to prevent negative effects on the workers, construction site staff, environment or the public. – Using and labelling the containers planned for waste collection, as well as the areas for disposing different types of waste (hazardous and non-hazardous). – Transport the waste in marked vehicles designed for waste transport, to minimize the risk of releasing substances (hazardous and non-hazardous substances) as well as remains that can be carried by the wind. – To train the drivers in handling and disposal of the load they transport and transport documents describing the nature of the load (waste) and its degree of hazard.	Contractor	Supervising Authority	
	Potential contamination of soil and water from improper maintenance and fueling of equipment	– Disposing of and handling lubricants, fuel and solvents is to be performed exclusively in the secured area and storage with concrete base; – To ensure proper loading of fuel and equipment maintenance; – To collect all waste and dispose it on authorized recycling locations.	Contractor	Supervising Authority	
	Safety of workers	– provide workers with safety instructions and PPE – provide safe organization of bypassing traffic	Contractor	Supervising Authority	
	Possibility of an archaeological site existence	In case the Contractor comes across an archaeological site, he is obliged to stop the works immediately and inform the relevant Institute for Protection of Cultural Monuments Kraljevo and PERS	Contractor	Supervising Authority	
Construction	**Special Measures Defined by the Conditions of Relevant Institutons**				

	The Institute for Nature Conservation of Serbia	– Construction works on enhanced maintenance of the section should be carried out in accordance with the technical documentation and in the existing dimensions of the carriageway structure. – Define that the drainage of the road is carried out by gravity surface water drainage and, if necessary, by the construction of open canals for the reception of surface water. – The construction site should be organized on the minimal surface necessary for its functioning, and manipulative surfaces should be limited regarding their size. – If during the works it encounters geological-palaeontological or mineralogical-petrochemical objects, which are presumed to have a natural good property, the Contractor is obliged to notify the ministry responsible for environmental protection within eight days, or take all measures in order not to damage the natural good until the arrival of an authorized person. – Take all measures to protect the land so that there is no possible spillage of fuel and oil from the transport means and construction machinery engaged in the execution of the works. In case of an accident, immediately clean dirty surface and remove the polluted soil layer as pollutants can not reach the groundwater and allow it to be taken to the landfill. – When performing works during the summer months, reduce the dustiness of the air by periodically watering the building muck and the remaining material. – Systematically collect and place solid waste that will occur during the construction work and stay of workers in the construction site (food packaging and other solid waste) and remove all remaining building materials, waste and equipment from the construction site after the completion of the works.			

	The Institute for Protection of Cultural Monuments of Kraljevo	– Due to the existence of archaeological sites on the route, namely nearby the route of the section of the State Road IB No. 22 (an old road sign M-22) section Raska (K. Mitrovica) - Novi Pazar (Banja), it is forbidden to perform any works on archaeological localities and in their vicinity without the presence of archaeologists. It is necessary to organize professional archaeological supervision concerning the archaeological sites Podgolis (CM Panojevici) and Naprelje - the remains of the church and necropolis (Novi Pazar CM, Banja), as well as near the archaeological sites Staro selo, Malo brdo, Gradina and Groblje in Jablanicki potok (CM Panojevici), then the Greek cemetery, Crkvina and Duvarine (CM Koprivnica), during the execution of works on road maintenance. – If during the execution of works on maintenance of the section of the state road and the accompanying infrastructure (drainage system, etc.), archeological sites or archaeological objects (goods that enjoy previous protection of the Law on Cultural Property) are found out, the Contractor is obliged to immediately, without any delay, interrupt works and take protective measures so that the finding would not be destroyed and damaged and preserved in the place and position in which it was discovered. – If it is determined on the basis of the law that the relevant real estate or object is related to cultural property, further execution of works and changes in the shape of the terrain may be allowed after previously provided archaeological research, with adequate presentation of the findings and conditions in agreement with the official protection. – Depending on the situation in the field and if necessary, the Institute for Protection of Monuments will prescribe additional archaeological research. – The costs of supervision over the execution of works and the possibilities of the research are funded by the Investor. – It is the duty of the Investor to provide funds for research, safekeeping, monitoring, protection and preservation of the discovered remains which require previous protection that is revealed during the construction of an investment facility - until the handing over theproperty to an authorized protection institution. – The Republic Institute for the Protection of Cultural Monuments of Belgrade is in charge for the cadastral municipality of Postenje (from km 249+340 to km 253+510). – It is necessary to obtain the conditions for undertaking the measure of technical protection of the Republic Institute for the Protection of Cultural Monuments of Belgrade in order to prepare the technical documentation of the design, for the part of the relevant section in the territory of the cadastral municipality of Postenje. – The Investor is obliged to notify the competent institution within 7 days prior to commencement of the works in order to organize the supervision.		

	Public Water Management Company „Srbijavode“ Belgrade WC „Morava“ Nis „Z. Morava“ Cacak	– Technical documentation should be made in accordance with the statutory regulations and norms for this type of structure. – For all hydraulic calculations related to drainage of atmospheric water as well as hydraulic structures (bridges, culverts, drainage canals, etc.), hydrological data obtained in the RHMI opinion should be used, if water conditions are obtained from the Republic Water Directorate. – During rehabilitation, do not reduce light openings of bridges and culverts and perform calculating channel capacity of these objects. Bridges and culverts should satisfy the relevant large water occurrence once in 100 years. – If plans are being made for the arrangement of existing watercourses in the rehabilitation zone of the state road, which may affect the water regime, the Investor must make a special request for each facility separately. – In the project documentation in the graphic enclosures, it is necessary to draw the position of the bridge, cross-section and longitudinal sections, as well as other details from which the effect of possible rehabilitation works can be seen, water regime and the influence of water on the object works. – The project envisages the technology of carrying out works in the watercourse zone, which does not interfere with the normal flow regime (setting of scaffolds and other obstacles in the watercourse). – In case of the reconstruction of bridges - culverts or other interventions on them that imply a change in constructive characteristics or a decrease in the flow profile, which results in a change regarding water regime, it is necessary to submit a request for water conditions through the CEOP. – During the construction, it is not allowed to depose, discharge any material in the watercourses, or reduce their flow profile. – In case of negative effects concerning water regime due to improper works, if the erosive process or landslide is caused, the Investor is obliged to eliminate all the possible damages during the execution of the works and the operation phase, at his own expense.			
Operational	**Maintenance**				
	Noise disturbance to human and animal population and workers	– limit activities to daylight working hours (no works between 08:00 pm and 07:00 am or in accordance with the public consent); – use the equipment with noise mufflers installed.	Maintenance Contractor	Maintenance Contractor / PERS	It should be specified in the contract maintenance documentation
	Possible air, water and soil pollution	– apply the best engineering practice in handling and safe storage of lubricants, fuel and oil in secured storages; – ensure proper loading of fuel and maintenance of equipment; – collect and dispose all waste in accordance with the Law on Waste Disposal; – properly organize and cover the areas for material storage; – isolate concrete and asphalt works from the watercourse by using sealed formwork; – washing the vehicles and construction machines is exclusively done in registered car washes.	Maintenance Contractor	Maintenance Contractor / PERS	
	Vibrations	limit activities to daylight working hours (no works between 08:00 pm and 07:00 am, or as agreed with the public and authorities)	Maintenance Contractor	Maintenance Contractor / PERS	

	Safety of workers	– provide workers with safety instructions and PPE; – organize safe traffic bypass using alternative roads and appropriate traffic signage; – all the workers and visitors to the construction site will be introduced to the basics of environmental protection and safety measures and protection at work and will be given instructions for using the Personal Protective Equipment.	Maintenance Contractor	Maintenance Contractor / PERS	
	Maintenance	– Regularly maintain curbs; – Mow and maintain grass and take it to the landfill; – Regularly clean drainage structures (gullies) and deposit the waste material on the specially designated landfill; – Regularly clean the road surface; – Fill in the holes, joints and cracks; – The remains of asphalt after works should be transported and stored on an appropriate landfill designated for construction materials; – Clean the road surfaces regularly and timely, as well as the surrounding road structures in case of a traffic accident or overturning of tanks or other trucks; – Make repairs.	Maintenance Contractor	Maintenance Contractor / PERS	
	increased vehicle speed	- install speed limit signs	Maintenance Contractor	Maintenance Contractor / PERS	It should be specified in TS in the part about maintenance works
	Erosion, rockfall, hazardous situation	– install suitable warning signs (rockfall, landslide, wet or slippery conditions, dangerous curve, animal or pedestrian crossing, school, slow traffic zone, merging); – reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility; – place warning signs on locations considered necessary by good engineering practice, or as agreed in writing with public authorities.	Maintenance Contractor	Maintenance Contractor / PERS	

APPENDIX 2

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 (randomly)?	Institutional responsibility Implementation
Construction	**Material Supply**					
Asphalt plant	Possession of an official approval or valid (operating) license	Asphalt plant	Inspection / Supervising engineer	Prior to the beginning of works	Assure plant compliance with environment, health and safety requirements	Plant operator
Quarry	Possession of an official approval or valid (operating) license	Quarry	Inspection / Supervising engineer	Prior to the beginning of works		Quarry operator
Sand and gravel borrow-pit	Possession of an official approval or valid (operating) license	Sand and gravel borrow-pit	Inspection / Supervising engineer	Prior to the beginning of works		Borrow-pit or separation facility operator
Concrete plant	Possession of an official approval or valid (operating) license	Concrete plant	Inspection / Supervising engineer	Prior to the beginning of works		Operator of a concrete plant
Construction	**Material Transport**					
Asphalt	Truck load covered	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor’s supervision
Stone	Truck load covered or wetted	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor’s supervision
Sand and gravel	Truck load covered or wetted	Construction Site	Supervising engineer	Unannounced inspections during the works, at least once a week	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor’s supervision

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored (randomly)?	Institutional responsibility Implementation
Concrete plant	Removing fresh concrete that was accidentally spilled from the mixer on the transport roads within 6 hours	Construction Site	Supervising engineer	Unannounced inspections during the works	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision
Traffic management	Hours and routes selected	Construction Site	Supervision	Unannounced inspections during the works	Assure compliance with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision
Construction	**Construction Site**					
Noise disturbance to workers and neighbouring population	Noise levels	Construction site, nearby houses along the route	Equipment – manual equipment for analysing (detecting the level of noise) with the software for its application	– Once, at the beginning of the project; – Quarterly; – Due to grievances; – If the tracking results are not satisfactory, it is to be prepared on a monthly level.	Assure compliance with environment, health and safety requirements; Minimal disruptions of traffic	Contractor's supervision (monitoring)
Water and soil pollution resulting from improper material storage, management and use	Soil and water quality (suspended solids, oils, PH values, conductivity)	Watercourses near the storage places	– Unannounced sampling; – Analysis in a certified laboratory possessing the required equipment	Monitoring should be performed prior to the construction (at the reference point upstream from the construction site) and once during the rehabilitation works. If the tracking results are not satisfactory, it should be performed at a monthly basis until the works on the site are finished.	Assure compliance with environment, health and safety requirements; Minimal disruptions of traffic	Contractor's supervision (monitoring)
Dust	Air pollution (solid particles)	On and near the construction site, quarry, inhabited settlements...	Inspection and visual observation	Unannounced inspections during the delivery of materials and construction	Assure compliance with environment, health and safety requirements; Minimal disruptions of traffic	Contractor's supervision (monitoring)
Vibrations	Limited time of the activities	Construction Site	Supervision	Unannounced inspections during the active works and due to grievances	Assure compliance with environment, health and safety requirements; Minimal disruptions of traffic	Contractor's supervision (monitoring)
Traffic disruption during construction activity	The existence of the Traffic Management Plan and traffic pattern	On the construction site	Inspection; Supervision	– Prior to the beginning of works; – Once a week in the periods with the largest amount of works; and – Calm periods when the quantity of activities is not the highest.	Assure compliance of works with environment, health and safety requirements and enable as little disruption to traffic as possible	Contractor's supervision

Phase	What is the parameter to be monitored?	Where the parameter should be monitored?	How the parameter should be monitored? Type of monitoring equipment	When the parameter should be monitored? (frequency of measurement or continuous)	Why the parameter should be monitored (randomly)?	Institutional responsibility Implementation
Reduced access to roadside activities	Alternative access provided	Construction Site	Supervision	Random checks at least once a week during construction site activities	Minimal disruptions of traffic	Contractor's supervision
Safety of vehicles and pedestrians where there are no construction activities	Visibility and suitability	On and near the site	Observation	Random checks at least once a week at evening hours	Assure the compliance with the health and safety and environmental requirements; Minimal disruptions of traffic	Contractor's supervision
Safety of workers	PPE; Bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the works	Assure the compliance with the health and safety and environmental requirements; Minimal disruptions of traffic	Contractor's supervision
Operational	**Maintenance**					
Negative effect of noise on the workers and local residents	Noise levels	Construction Site; Nearby houses	Equipment – manual equipment for analysing (detecting the level of noise) with the software for its application	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements	PERS
Vibrations	Limited time of activities	Construction Site	Supervision	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements	PERS
Safety of workers	PPE; Bypass traffic organization	Construction Site	Inspection	Unannounced inspections during the maintenance activities and due to grievances	Ensure the compliance with the health and safety and environmental requirements	PERS
Period of use	**Road Safety**					
Increasing the speed of vehicles	The conditions of traffic signs, the vehicle speed	Road section included in the design	Visual observation; Speed detection	During the activities, announced	Ensure safe and economical traffic flow	Contractor of works on maintenance; Traffic police
Erosion, rockfall and hazardous situations	The condition of danger warning signs	Road section included in the design	Visual observation	During the activities	Ensure safe and economical traffic flow	Contractor of works on maintenance, tracking the impact (monitoring)

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

1. General		
Is the project compliant with all relevant requirements (taking account of agreed action plans, exemptions or derogations)?	Yes ❑ No ❑	If no, please provide details of any material non-compliances:
Is the project materially compliant with all applicable environmental and social laws and regulations?	Yes ❑ No ❑	If no, please provide details of any material non-compliances:
Have there been any accidents or incidents that have caused damage to the environment, lead to injuries or fatalities, affected project labour or local communities, affected cultural property, or created liabilities for the company?	Yes ❑ No ❑	If yes, please describe, including details of actions to repair and prevent reoccurrence:
Have there been any changes to environment, social, labour or health and safety laws or regulations that have materially affected the company?	Yes ❑ No ❑	If yes, please describe:
How many inspections did you receive from the environmental authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any possible violations:
How many inspections were carried out by the health and safety authorities during the reporting period?	Number:	Please provide details of these visits, including number and nature of any violations found:
How many inspections were carried out by 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 sub-contractors for project related work?	Yes ❑ No ❑	If yes, please state for which types of work, and how the company has monitored the compliance of contractors with specified requirements:
Were there any violations stated above regarding the responsibility of contractors?	Yes ❑ No ❑	If yes, please provide details, including how the Company is ensuring those corrective actions implemented by the Contractor?

Have any operations been reduced, temporarily suspended or closed down due to environmental, health, safety or legislation reasons?	Yes ❑ No ❑	If yes, please describe:
Please describe any environment or social programs, initiatives or sub-projects undertaking during the reporting period to improve the Company's environmental or social performance and/or management systems: Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Action Plan, or to any other initiative:		

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

3. Environmental Monitoring Data				
Please provide the name and contact details for your environmental manager:				
Parameter[9]	**Value[10]**	**Unit**	**Compliance Status[11]**	**Comments[12]**
Waste water				
Total waste water generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
Air Emissions				
SO_2				
NO_X				
Particles				
CO_2				
CH_4				
N_2O				

[9]Not all parameters will necessarily be applied. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.
[10]Please ensure that the units of measurement are clearly stated.
[11] Please report on compliance against the standards for this project (typically local, EU and/or WB)
[12]In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

3. Environmental Monitoring Data				
Please provide the name and contact details for your environmental manager:				
Parameter[9]	**Value[10]**	**Unit**	**Compliance Status[11]**	**Comments[12]**
HFCs				
PFCs				
SF_6				
[Other]				
OtherParameters				
Noise				
[Other]				
Solid Waste				
Please provide details of the types and amounts of solid wastes generated by the project. Indicate places where waste is classified as hazardous. Indicate the final re-use, recycle or disposal method for each waste type.				

4. Resource Usage and Product Output			
Parameter	**Value**	**Measurement Unit**	**Comments[13]**
Fuels used			
Oil			
Gas			
Coal			
Lignite			
Grid Electricity			
Heat Purchased			
Feedstocks and raw materials consumed			
Name 1			
Name 2			
Product output			
Product 1			
Product 2			

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

5. Human Resources Management				
Please provide the name and contact details for your Human Resources manager:				
	Total		**Recruited in this reporting period**	**Dismissed in this reporting period**
Number of direct employees:				
Number of contracted workers:				
Were there any collective redundancies during the reporting period?	Yes ❑ No ❑	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, how they were selected, consultation undertaken, and measures to mitigate the effects of redundancy:		
Are there any planned redundancies to the workforce in the next year?	Yes ❑ No ❑	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation process:		
Were there any changes in trade union representation at Company facilities during the reporting period?	Yes ❑ No ❑	If yes, please provide details, and summarize engagement with trade unions during reporting period:		
Are there any other worker representatives (e.g. in the absence of a trade union)?	Yes ❑ No ❑	If yes, please provide details and summarize engagement with them during reporting period:		
Were there any changes in the status of Collective Agreements?	Yes ❑ No ❑	If yes, please provide details:		
Have employees expressed any grievance regarding the project during the reporting period?	Yes ❑ No ❑	If yes, please state how many, split by gender, summarize the issues expressed by male and female staff and explain how the Company has addressed them:		
Have employees expressed any complaint about harassment or bullying during the reporting period?	Yes ❑ No ❑	If yes, please state how many, split by gender, summarize the issues expressed in grievances by male and female staff and explain how the Company has addressed them		

Were there any strikes or other collective disputes related to labour and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved
Were there any strikes or other collective disputes related to labour and working conditions at the Company in the reporting period?	Yes ❑ No ❑	If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved:
Were there any changes to the following policies or terms and conditions during the reporting period in any of the following areas: • Representative union, Collective Agreement • Non-discrimination and equal opportunity • Equal pay for equal work • Gender Equality • Bullying and harassment, including sexual harassment • Employment of young persons under age 18 • Wages (wage level, normal and overtime) • Overtime • Working hours • Flexible working / work-life balance • Grievance mechanism for workers • Health & safety	Yes ❑ No ❑	If yes, please give details, including some new initiatives:

6. Occupational Health and Safety Data					
Please provide the name and contact details for your Health and Safety manager:					
	Direct employees	**Contracted workers**		**Direct employees**	**Contracted workers**
The amount of work that the average worker does in the reporting period in an hour:			Number of fatalities[14]:		
Budget spent on OHS in this period (total amount and currency):			Number of injuries:		
OHS training provided in this period among employees-days:			Number of Lost Time Incidents (including vehicles)[15]:		
Number of lost workdays[16]resulting from incidents			Number of cases of occupational disease:		
Number of days when people are on sick leave:					
Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):					
Please provide details of any fatalities or major accidents that have not previously been reported, including total compensation paid due to occupational injury or illness (amount and currency):					
Please summarize any emergency prevention and response training that has been provided for Company's personnel during the report period:					
Please summarize any emergency response exercises or drills that have been carried out during the report period:					

[14]If you have not done it yet, please provide a separate report on the circumstances of each fatality in a great detail.
[15]Incapacity to work for at least one full workday beyond the day on which the accident or illness occurred.
[16]The number of workdays is related to lost workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

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

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

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

Please describe any changes to the Stakeholder Engagement Plan:

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

8. Status and Reporting on Resettlement Action Plan/Livelihood Restoration Framework		
Existing Land Acquisitions Please report any further progress made during this reporting period in the implementation of the Resettlement Action Plan (RAP) or Livelihood Restoration Framework (LRF), using the monitoring indicators as detailed in the RAP or LRF, and complete the table below. Please provide the results of any other related monitoring carried out by the Company or its consultants and attach any additional information you think would be useful.		
Have all the affected persons been fully compensated for their physical displacement and, if applicable are there any economic losses resulting from the project?	Yes ❑ No ❑	If no, specify how many compensation payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made.
Has the land acquisition had any additional, unforeseen impacts on affected persons' standard of living or access to livelihoods that were not previously covered in the RAP?	Yes ❑ No ❑	If yes, quantify these impacts and specify what measures have been undertaken to minimize and mitigate these impacts. If no, specify how potential impacts on livelihoods have been monitored.
Have any vulnerable groups been identified?	Yes ❑ No ❑	If yes, list the groups that were identified and describe any additional measures undertaken in order to mitigate impacts specific to these groups.
If applicable, have all transit allowances been paid?	Yes ❑ No ❑	If no, specify how many payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made.
Has legal support been provided to all 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 the affected communities on the progress made in implementing the RAP?	Yes❑ No❑	If yes, please state how many meetings were held and how many participants attended those meetings
New Land Acquisitions If the company acquired any new land for the project during the reporting year, please provide documents to show closure of land acquisition transactions. Please attach new/revised RAP covering the new land acquisition and describe mitigation measures, compensation, agreements reached, etc., and provide in tabular form a list of affected people and status of compensation.		
Are there any persons that physically have been displaced?	Yes❑ No❑	If yes, how many?
Are there any persons that have been economically displaced?	Yes❑ No❑	If yes, how many?
Will the government assist that resettlement?	Yes❑ No❑	

9. Community Interaction and Development
Please summarize any social or community development initiatives undertaken by the Company during the reporting period, and any associated expenditure:

APPENDIX 3

LEGISLATION

REGULATIONS AND REQUIREMENTS

This section deals with the regulatory context in terms of consultation and publicity in the Republic of Serbia, and it relates to the Design. Particular emphasis is placed on the importance of the relevant Serbian legislation, regional regulatory instruments, as well as the relevant requirements of the World Bank's Access Policy and Operational Policies OP 4.01 Environmental Impact Assessment.

BASIC NATIONAL LEGISLATION:

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

1. **Law on Planning and Construction** ("Official Gazette of RS", Nos. 72/2009, 81/2009 - correction, 64/2010 - CC decision, 24/2011, 121/2012, 42/2013 - CC decision, 50/2013 - CC decision, 98/2013 - CC decision, 132/2014 and 145/2014);
2. **Law on Nature Protection** ("Official Gazette of RS", Nos. 36/2009, 88/2010, 91/2010 - correction and 14/2016);
3. **Law on Environmental Protection** ("Official Gazette of RS", Nos. 135/2004, 36/2009, 36/2009 - state law, 72/2009 - state law, 43/2011 - CC decision and 14/2016)
4. **Law on EIA** (“Official Gazette of RS” Nos. 135/2004, 36/2009);
5. **Law on Strategic EIA** (“Official Gazette of RS” Nos. 135/2004 and 88/2010);
6. **Law on Waste Management** ("Official Gazette of RS", Nos. 36/2009, 88/2010 and 14/2016);
7. **Law on Noise Protection** ("Official Gazette of RS", Nos. 36/2009 and 88/2010);
8. **Law on Water** ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 101/2016)
9. **Law on Forests** ("Official Gazette of RS", Nos. 30/2010, 93/2012 and 89/2015)
10. **Law on Air Protection** (“Official Gazette of RS”, Nos. 36/2009 and 10/2013);
11. **Law on Occupational Safety and Health** ("Official Gazette of RS", Nos. 101/2005, 91/2015 and 113/2017 - state law)
12. **Law on Roads** ("Official Gazette of the RS" No. 41/2018).

Regulations formed based on the aforementioned Laws:

1. Decree of establishing the List of Projects for which the Impact Assessment is mandatory and the List of projects for which the EIA can be requested (“Official Gazette of RS” No. 114/08);
2. Rulebook of the contents of requests for the necessity of Impact Assessment and on the contents of requests for specification of scope and contents of the EIA Study (“Official Gazette of RS” No. 69/05);
3. Manual of the contents of the EIA Study (“Official Gazette of RS” No. 69/05);
4. Manualof the procedure of public inspection, presentation and public consultation about the EIA Study (“Official Gazette of RS” No. 69/05);
5. Manual of the work of the Technical Committee for the EIA Study (“Official Gazette of RS” No. 69/05);
6. Regulations on permitted noise level in the environment (“Official Gazette of RS” No. 54/92);
7. Regulation of establishing class of water bodies (“Official Gazette of RS” No. 5/68);
8. Regulations of dangers pollutants in waters (“Official Gazette of RS” No. 31/82).

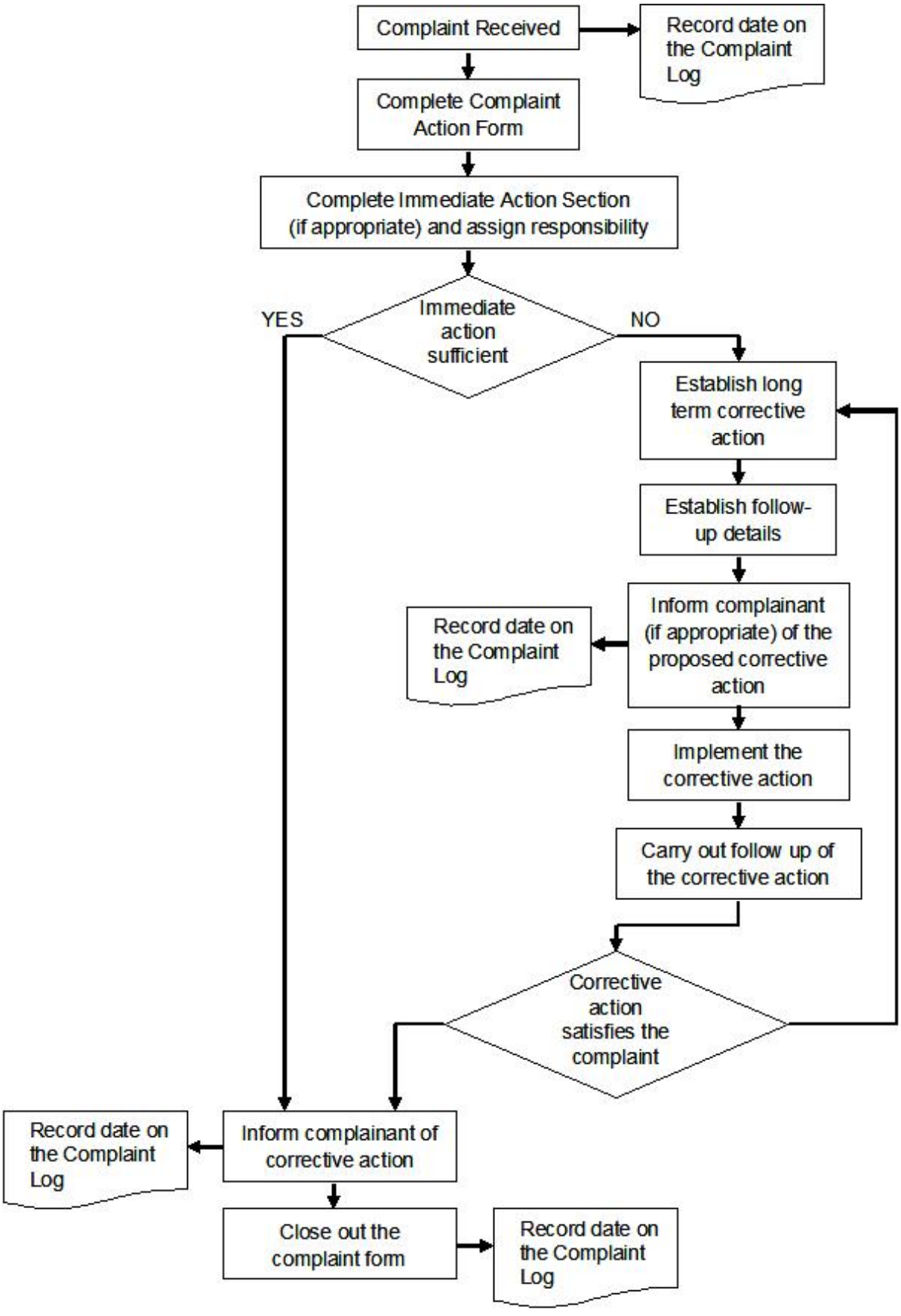
Other relevant Serbian legislation:

1. Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area (“Official Gazette of RS”, No. 38/09).

APPENDIX 4

THE GRIEVANCE MECHANISM AND FORM

Flowchart of Complaints/Grievance Procedure



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

APPENDIX 5

PUBLIC CONSULTATIONS

The following people took part in the public consultations:

No.	Name and surname	Working organization- institution
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

QUESTIONS AND ANSWERS:

APPENDIX 6

CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS

Република Србија
МИНИСТАРСТВО ЗАШТИТЕ
ЖИВОТНЕ СРЕДИНЕ
Број: 011-00-00263/2018-03
Датум: 02.04.2018.
Београд

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

Предмет: Допис у вези са захтевом

Министарству заштите животне средине обратили сте се Захтевом за давање мишљења о потреби израде студије о процени утицаја на животну средину пројекта појачаног одржавања и отклањања оштећења на државном путу IB реда бр. 22, деоница Рашка (К. Митровица) – Нови Пазар (Бања), L=17 974 km, заведен под бројем 011-00-00263/2018-03 од 28.03.2018.

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

Пројекаом су обухваћени радови који се односе на ојачање постојеће коловозне конструкције у постојећим габаритима и са постојећим и санираним системом одводњавања, уз пројектовање свих елемената који продужавају трајност радова и обезбеђују систем безбедности саобраћаја.

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;
- Решење бр. 020-1853/3 од 07.09.2017. које је издао Завод за заштиту природе Србије;
- Решење бр. 338/2 од 09.03.2018. које је издао Завод за заштиту споменика културе Краљево;
- Прегледна карта предметне деонице;

- Пуномоћје бр. 953-1827 од 23.01.2018. за JV BOTEK Bosphorus Tehnical Consulting Corp. & MHM –PROJEKT doo Novi Sad, које је издало ЈП ПУТЕВИ СРБИЈЕ;

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

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

Помоћник министра
По решењу о овлашћењу
бр. 021-01-5/4/2017-09 од 11.12.2017.

Александар Весић

Доставити:
-наслову
- JV BOTEK Bosphorus Tehnical Consulting Corp. & MHM –PROJEKT doo
21 000 Нови Сад, Јована Поповића 40
-архиви

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

ЈАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"
Број 953-16074 4/17-1
Датум 08-09-2017
БЕОГРАД, Булевар краља Александра бр. 282

Завод за заштиту природе Србије, Београд, Ул. др Ивана Рибара бр. 91, на основу члана 9. Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010 – исправка и 14/2016) и члана 136. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), поступајући по захтеву II бр. 953-16074 ЈП Путеви Србије из Београда, Бул. краља Александра бр. 282, за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IБ реда бр. 22 (стара ознака: магистрални пут М-22), деоница Рашка-Нови Пазар (Бања), дана 07.09.2017. године под 03 бр. 020-1853/3 доноси

Р Е Ш Е Њ Е

1. На деоници државног пута IБ реда бр. 22 (стара ознака: магистрални пут М-22), деоница Рашка-Нови Пазар (Бања), у даљем тексту: Деоница пута, нема заштићених подручја за које је спроведен или покренут поступак заштите, утврђених еколошки значајних подручја и еколошких коридора еколошке мреже Републике Србије (ЕМРС), као ни евидентираних природних добара. Техничку документацију за израду пројекта Појачаног одржавања (у даљем тексту: Пројекат) на Деоници пута, урадити у складу са следећим условима заштите природе:

1) Грађевинске радове на појачаном одржавању Деонице пута извести у складу са техничком документацијом и у постојећим габаритима коловозне конструкције.
2) Дефинисати да се одводњавање саобраћајнице врши гравитационим отицањем површинских вода и по потреби изградњом отворених канала за прихват површинских вода.
3) Градилиште организовати на минималној површини потребној за његово функционисање, а манипулативне површине просторно ограничити.
4) Уколико се током радова наиђе на геолошко-палеонтолошке или минералошко-петролошке објекте, за које се претпоставља да имају својство природног добра, извођач радова је дужан да у року од осам дана обавести министарство надлежно за послове заштите природе, односно предузме све мере како се природно добро не би оштетило до доласка овлашћеног лица.
5) Предузети све мере заштите земљишта како не би дошло до евентуалног изливања горива и уља из транспортних средстава и грађевинских машина ангажованих на извођењу радова. У случају акцидента, одмах почистити запрљану површину и уклонити загађени слој земљишта како загађујуће материје не би доспеле до подземних вода и омогућити његово одношење на депонију.
6) Приликом извођења радова током летњих месеци, смањити запрашеност ваздуха повременим заливањем грађевинског шута и преосталог материјала.
7) Систематски прикупљати и депоновати чврст отпад који ће се јављати током извођења радова и боравка радника у зони градилишта (амбалажа од хране, други чврсти отпаци) и уклонити сав преостали грађевински материјал, отпад и опрему са градилишта по завршетку извођења радова.

2. Ово решење не ослобађа подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима.
3. При измени техничке документације Пројекта, потребно је поднети нови захтев.

4. По изради техничке документације Пројекта, потребно је од Завода прибавити мишљење о испуњености услова из овог решења.
5. Уколико подносилац захтева у року од две године од дана достављања овог решења не отпочне радове и активности за које је ово решење издато, дужан је да поднесе захтев за издавање новог решења.
6. 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).

О б р а з л о ж е њ е

Завод за заштиту природе Србије примио је дана 4.8.2017. године Захтев бр. 020-1853/1 ЈП „Путеви Србије“ за издавање услова заштите природе за израду техничке документације за израду Пројекта на Деоници пута.

На основу достављене документације, утврђено је да се на Деоници пута Пројектом предвиђа ојачање коловозне конструкције (на појединим местима дубине од 50-60 cm од постојећег коловоза), у постојећим габаритима коловозне конструкције са постојећим и санираним системом одводњавања уз пројектовање свих елемената који продужавају трајност радова и унапређују систем безбедности саобраћаја.

Према подацима из Централног регистра заштићених природних добара и документације Завода, на Деоници пута за који се ради Пројекат, нема заштићених подручја за које је спроведен или покренут поступак заштите, еколошки значајних подручја и еколошких коридора ЕМРС утврђених Уредбом о еколошкој мрежи („Службени гласник РС“, бр. 102/2010), као ни евидентираних природних добара.

Услови из диспозитива овог решења издати су у складу са прописима који регулишу област заштите природе. Законски основ за доношење решења: Закон о заштити природе; Закон о заштити животне средине („Службени гласник РС“, бр. 135/2004, 36/2009, 72/2009, 43/2011 и 14/2016); Закон о јавним путевима („Службени гласник РС“, бр. 101/2005, 123/2007, 93/2012 и 104/2013).

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

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

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

Д И Р Е К Т О Р

Александар Драгишић

Достављено:
- Подносиоцу захтева
- Архиви x 2

Завод за заштиту споменика културе Краљево
36000 Краљево, Цара Лазара 24, ПИБ 100239951, матични број 07101104
тел. 036 331 866, тел/факс 036 321 025, e-mail: zzzskv@gmail.com
жиро рачун: 840-69664-74, 840-69668-62

ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ
вм/ља 339/2
Број
09 03 - 2018 год.
К Р А Љ Е В О

ЈАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"
Број 953-6080
Датум 13 -03- 2018
БЕОГРАД, Булевар краља Александра бр. 282

Завод за заштиту споменика културе Краљево, Краљево, Ул. Цара Лазара бр. 24, на основу члана 36 став 1, члана 99. став 2. тачка 1 и 3, чл. 100 став 1, и чл. 104,109 и 110. Закона о културним добрима („Службени гласник РС“, бр.71/94, 52/2011-др.закон, 99/2011-др.закон) и члана 104. Закона о општем управном поступку („Службени гласник РС“, бр.18/2016), поступајући по захтеву ЈП „ПУТЕВИ СРБИЈЕ“, Булевар краља Александра 282, 11050 Београд, II бр. 953-16073 од 03.08.2017, за издавање услова за предузимање мера техничке заштите за израду техничке документације пројекта *Појачаног одржавања деонице државног пута IБ реда бр. 22 (стара ознака: магистрални пут М-22), деоница Рашка – Нови Пазар (Бања)*, запримљеног у овом Заводу под бр. 1019/1 од 04.08.2017. године, доноси

Р Е Ш Е Њ Е

I – Подносиоцу захтева издају се мере техничке заштите за израду техничке документације пројекта *Појачаног одржавања деонице државног пута IБ реда бр. 22 (стара ознака: магистрални пут М-22), деоница Рашка – Нови Пазар (Бања)*, и могу се извршити под следећим условима:

- Због постојања археолошких локалитета на траси, односно у близини трасе *деонице државног пута IБ реда бр. 22 (стара ознака: магистрални пут М-22), деоница Рашка – Нови Пазар (Бања)*, забрањује се извођење било каквих радова на археолошким локалитетима и у њиховој близини без присуства археолога. На локацијама археолошких локалитета *Подголиш* (К.О. Панојевиће) и *Напреље – остаци цркве и некрополе* (Град Нови Пазар, К.О. Бања), као и у близини археолошких локалитета *Старо село*, *Мало брдо*, *Градина* и *Гробље у Јабланичком потоку* (К.О. Панојевиће), затим *Грчко Гробље*, *Црквина* и *Дуварине* (К.О. Копривница), приликом извођења радова на одржавању пута неопходно је организовати стручни археолошки надзор.
- Ако се у току извођења радова на одржавању деонице државног пута и пратеће инфраструктуре (систем одводњавања и др.), наиђе на археолошка налазишта или археолошке предмете (добра која уживају претходну заштиту Закона о културним добрима), извођач радова је дужан да одмах, без одлагања прекине радове и предузме мере заштите како налаз не би био уништен и оштећен и да се сачува на месту и положају у коме је откривен.
- Уколико се на основу закона утврди да је односна непокретност или ствар културно добро, даље извођење радова и промене облика терена могу се дозволити након претходно обезбеђених археолошких истраживања, уз адекватну презентацију налаза и услове и сагласност службе заштите.
- Завод за заштиту споменика ће зависно од ситуације на терену, уколико је потребно, прописати додатна археолошка истраживања.
- Трошкове надзора над извођењем радова и могућих археолошких истраживања сноси инвеститор.

Завод за заштиту споменика културе Краљево
36000 Краљево, Цара Лазара 24, ПИБ 100239951, матични број 07101104
тел. 036 331 866, тел/факс 036 321 025, e-mail: zzzskv@gmail.com
жиро рачун: 840-69664-74, 840-69668-62

- Инвеститор објекта дужан је да обезбеди средства за истраживање, заштиту, чување, публиковање и излагање добра које ужива претходну заштиту које се открије приликом изградње инвестиционог објекта – до предаје добра не чување овлашћеној установи заштите.
- За катастарску општину Постење, надлежан је Републички завод за заштиту споменика културе Београд.
- За израду техничке документације пројекта, за део предметне деонице на територији катастарске општине Постење, неопходно је прибављање услова за предузимање мера техничке заштите Републичког завода за заштиту споменика културе Београд.
- Инвеститор је у обавези да 7 дана пре почетка радова обавести надлежни Завод како би се благовремено организовао надзор.

II – Инвеститор је обавезан да на основу ових услова изради пројектну документацију са свим потребним прилозима у свему према датим условима из тачке 1) овог Решења, и на исту прибави сагласност надлежног органа у складу са Законом.
III – Ово Решење не ослобађа подносиоца захтева обавеза прибављања и других услова, дозвола и сагласности предвиђених прописима о планирању и уређењу простора.
IV – Ово Решење важи две године од дана издавања.
V – Жалба не одлаже извршење овог Решења.

О б р а з л о ж е њ е

Овом Заводу обратило се ЈП „ПУТЕВИ СРБИЈЕ“, Булевар краља Александра 282, 11050 Београд, захтевом за издавање услова за предузимање мера техничке заштите за израду техничке документације пројекта *Појачаног одржавања деонице државног пута IБ реда бр. 22 (стара ознака: магистрални пут М-22), деоница Рашка – Нови Пазар (Бања)*.

Увидом у документацију овог Завода и на лицу места, као и на основу Извештаја стручног сарадника овог Завода бр. 338/1 од 08.03.2018. године, на траси, односно у близини трасе деонице државног пута IБ реда бр. 22, деоница Рашка – Нови Пазар (Бања) није утврђено постојање непокретних културних добара нити евидентираних добара која уживају заштиту на основу Закона о културним добрима („ Службени гласник РС “, бр.71/94, 52/2011-др.закон, 99/2011-др.закон).

Међутим, утврђено је постојање локалитета са археолошким садржајем који су наведени у тачки 1) диспозитива овог Решења. Локалитети са археолошким садржајем специфични су са становишта заштите јер се налазе испод површине земље и често није могуће знати за њихово постојање; приликом било каквих земљаних радова могуће је наићи на остатке материјалне културе из прошлости, те је у том случају неопходно организовати праћење спровођења мера заштите од стране археолога Завода.

На основу чл. 99. став 2 тачка 3. Закона о културним добрима прописано је да се мере техничке заштите и други радови којима се могу проузроковати промене облика или изгледа непокретног културног добра или повредити његова својства, могу предузети ако се прибаве потребни услови и одобрења на основу прописа о планирању и уређењу простора и изградњи објекта.

Завод за заштиту споменика културе Краљево
36000 Краљево, Цара Лазара 24, ПИБ 100239951, матични број 07101104
тел. 036 331 866, тел/факс 036 321 025, e-mail: zzzsky@gmail.com
жиро рачун: 840-69664-74, 840-69668-62

Чланом 109. Закона о културним добрима прописано је да уколико се у току извођења земљаних и других радова нађе на археолошко налазиште или археолошке предмете, извођач радова дужан је да одмах, без одлагања, прекине радове и о томе обавести надлежни Заводу за заштиту споменика културе, као и да обезбеди средства за заштитна археолошка истраживања и конзервацију налаза.

Чланом 110. Закона о културним добрима прописано је да је Инвеститор дужан да обезбеди средства за истраживања, заштиту, чување, публиковање и излагање добра које ужива предходну заштиту, све до предаје добра на чување овлашћеној установи заштите.

Са изложеног, одлучено је као у диспозитиву овог Решења.

На основу члана 104. став 3. Закона о културним добрима жалба не одлаже извршење Решења.

ПРАВНА ПОУКА: Против овог Решења дозвољена је жалба Републичком заводу за заштиту споменика културе - Београд у року од 15 дана од дана достављања Решења. Жалба се подноси преко доносиоца овог Решења, а на основу члана 16. Закона о културним добрима ослобођена је плаћања републичке административне таксе.

Обрађивачи: Војкан Милутиновић, дипл. археолог и Љиљана Александрић, дипл. правник

Доставити:

- Подносиоцу захтева
- Републичком заводу за заштиту споменика културе - Београд
- Архиви Завода

В.Д. ДИРЕКТОРА ЗАВОДА,

Иван Милуновић

Јавно водопривредно предузеће
"Србијаводе" Београд
Водопривредни центар "Морава" Ниш
РЈ "Западна Морава" Чачак
број: 1952/1
Дана: 24.05. 2018 год.
Н И Ш

ДР (90-1952/9. 5. 2018 год.)

На основу члана 117. став 4. Закона о водама ("Сл. гласник РС", број 30/2010, 93/2012 и 101/2016), а сходно Закључку са састанка бр.325-службено од 27. 9. 2016 год.Министарства пољопривреде и заштите животне средине, републичка Дирекција за воде, Јавно водопривредно предузеће "Србијаводе" Београд, ВПЦ "Морава" Ниш, РЈ "Западна Морава" из Чачка издаје

М И Ш Љ Е Њ Е

за израду техничке документације - „Главног пројекта појачаног одржавања државног пута IБ реда бр.22, деоница Рашка (Косовска Митровица) – Нови Пазар (Бања), Л= 17,974км", преко више делова катастарских парцела у К.О. Рашка, К.О. Супње, К.О. Кућане и К.О. Панојевиће на територији општине Рашка, преко више делова катастарских парцела у К.О. Батњик, К.О. Копривница, К.О. Постење и К.О. Бања на територији општине Нови Пазар

1.Општи подаци

1.1.Назив

- објекат: „Главног пројекта појачаног одржавања државног пута IБ реда бр.22, деоница Рашка (Косовска Митровица) – Нови Пазар (Бања), Л= 17,974км", преко више делова катастарских парцела у К.О. Рашка, К.О. Супње, К.О. Кућане и К.О. Панојевиће на територији општине Рашка, преко више делова катастарских парцела у К.О. Батњик, К.О. Копривница, К.О. Постење и К.О. Бања на територији општине Нови Пазар
- општина/град: Рашка и Нови Пазар;
- округ: Рашки;
- радови: израда техничке документације;
- Планеки документат: Просторни план општине Рашка и Просторни план општине Нови Пазар;

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1.1. Хидрографски подаци

- Државни пут IБ реда бр.22, деоница Рашка (Косовска Митровица) – Нови Пазар (Бања), Л= 17,974км на почетној деоници се укршта са реком Ибар, а затим наставља десном обалом реке Рашке при чему превођење више десних притока Рашке;
- Слив: Ибар;
- Водно подручје: Ибар и Лепенац;

1.3.Хидролошки подаци

Процењена стогодишња велика вода реке Рашке низводно од Новог Пазара је Q1%=486м3/сек.

1.4.Остали подаци:

Намеравано појачано одржавање државног пута IБ реда бр.22, деоница Рашка (Косовска Митровица) – Нови Пазар (Бања), Л=17,974км деоница од км 236+100,00 до км 253+891,00 се врши преко више делова катастарских парцела у К.О. Рашка, К.О. Супње, К.О. Кућане и К.О. Панојевиће на територији општине Рашка, преко више делова катастарских парцела у К.О. Батњик, К.О. Копривница, К.О. Постење и К.О. Бања на територији општине Нови Пазар.

Постојећи Државни пут IБ реда бр.22, деоница Рашка (Косовска Митровица) – Нови Пазар (Бања) се на више локација укршта са водотоцима и то са:

1. Укрштање са реком Ибар мостовском конструкцијом на стационажи државног пута км 236+100;
2. Паралелно вођење државног пута са реком Рашком, високом десном обалом Рашке, ван корита за велику воду Рашке од стационаже км 236+130 до км 253+891;
3. Укрштање са Кућанским потоком, цевасти пропуст на стационажи државног пута км 238+661;
4. Укрштање са вододерином, плочасти пропуст на стационажи државног пута км 239+164;
5. Укрштање са безименим потоком, плочасти пропуст на стационажи државног пута км 240+585;
6. Укрштање са вододерином, цевасти пропуст Ø 1000 на стационажи државног пута км 241+487;
7. Укрштање са вододерином, цевасти пропуст Ø 1000 на стационажи државног пута км 242+084;
8. Укрштање са безименим потоком, плочасти пропуст на стационажи државног пута км 242+414;
9. Укрштање са вододерином, плочасти пропуст на стационажи државног пута км 242+658;
10. Укрштање са безименим потоком, плочасти пропуст на стационажи државног пута км 244+639;
11. Укрштање са безименим потоком, плочасти пропуст на стационажи државног пута км 244+639;
12. Укрштање са Дукчином и Ја[illegible], мост на стационажи државног пута

км 244+967;
13. Укрштање са безименим потоком, цевасти пропуст на стационажи државног пута км 245+295;
14. Укрштање са вододерином, цевасти пропуст Ø 1000 на стационажи државног пута км 245+730;
15. Укрштање са вододерином, цевасти пропуст Ø 1000 на стационажи државног пута км 246+074;
16. Укрштање са вододерином, цевасти пропуст на стационажи државног пута км 246+723;
17. Укрштање са Јовском реком, плочасти пропуст на стационажи државног пута км 248+863;
18. Укрштање са вододерином, цевасти пропуст Ø 1600 на стационажи државног пута км 250+360,80;
19. Укрштање са вододерином, цевасти пропуст Ø 1000 на стационажи државног пута км 250+570,20;
20. Укрштање са безименим потоком, мост на стационажи државног пута км 251+916,80;
21. Укрштање са Избичком реком, мост на стационажи државног пута км 253+867;

На посматраној деоници рехабилитације државног пута нема регулисаних водотокова , нити су водотокови увршћени у оперативни план за одбрану од поплава.

1. Подаци од значаја за издавање водних услова

- Циљ израда техничке документације појачаног одржавања државног пута је израда Главног пројекта којим се обезбеђује:
  - Унапређење стања државне путне мреже кроз рехабилитацију око 1 100 км постојећих путева;
  - Подизање нивоа безбедности на путевима кроз примену мера за унапређење безбедности саобраћаја у свим фазама имплементације пројекта;
  - Јачање капацитета и унапређење институционалне координације у области безбедности саобраћаја кроз имплементацију већег броја различитих услуга
  - Главни пројекта појачаног одржавања се израђује по основу члана 59 важећег Закона о јавним путевима који се односи на периодично одржавање јавних путева и у оквиру њега ће бити предвиђена решења саобраћајних објеката (мостова и путева) која, у складу са закључком Министарства пољопривреде и заштите животне средине број 325 – службено од 27. 9. 2016 године, неће обухватити мењање попречних профила мостова и речних корита.
- Главним грађевинским пројектом појачаног одржавања пута планира се да се дефинишу:
  - елементи ситуационог плана, подужног и попречног профила (радијусе хоризонталних и вертикалних кривина, скретне углове, подужне и попречне нагибе и др.), који обезбеђују прописану прегледност пута;
  - геометријска пројектна решења рехабилитације коловоза (санација оштећења површине коловоза, корекција облика постојећег коловозног застора или

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

На основу наведених података урадити пројектну документацију:

- У свему према постојећим важећим законским прописима, као и важећим нормама за ову врсту радова;
- За све хидрауличке прорачуне који се односе на одводњавање атмосферских вода као и хидротехничке грађевине (мостови, пропусти, канали за одводњавање и др.) треба користити хидролошке податке добијене у Мишљењу РХМЗ-а, а уколико се прибављају водни услови од Републичке дирекције за воде;
- Приликом рехабилитације не вршити смањење светлог отвора мостова и пропуста и извршити рачунску контролу пропусне моћи ових објеката. Мостови и пропусти треба да задовоље меродавну рачунску велику воду појаве једном у 100 година $Q_{1\%}$, (РХМЗ).
- Уколико се планирају радови на уређењу постојећих водотокова у зони рехабилитације државног пута, а који могу утицати на режим вода инвеститор се мора обратити посебним захтевом за сваки такав објекат посебно.

- У пројектној документацији у графичким прилозима потребно је уцртати положај моста, попречне и подужне пресеке као и остале детаље из којих се може сагледати утицај евенуалних радова на рехабилитацији, на режим вода као и утицај вода на објекат - радове;
- Пројектом предвидети технологију извођења радова у зони водотока којом се не ремети нормалан режим течења (постављање скела и других препрека у водоток).
- У случају да се планира реконструкција мостова-пропуста или неке друге интервенције на њима које подразумевају промену конструктивних карактеристика или смањење протицајног профила, а који за последицу имају промену водног режима, неопходно је поднети захтев за добијање водних услова преко ЦЕОП-а;
- Приликом изградње није дозвољено депоновање, одлагање било каквог материјала у водотоцима нити смањења њиховог протицајног профила;
- У случају да дође до негативних утицаја на режим вода услед нестручног изведених радова, уколико се изазове настанак ерозивних процеса или клизишта инвеститор је дужан да предузме хитне мере и санира сву насталу штету о свом трошку;

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

Уз захтев је достављена следећа документација:

- Прегледна карта државног пута IБ реда бр.22, деоница Рашка (Косовска Митровица) – Нови Пазар (Бања), Л= 17,974км;

- Подносиоцу захтева
- Архива

Руководилац ВПЦ „Морава" Ниш

Драгана Симић, дипл.правник