



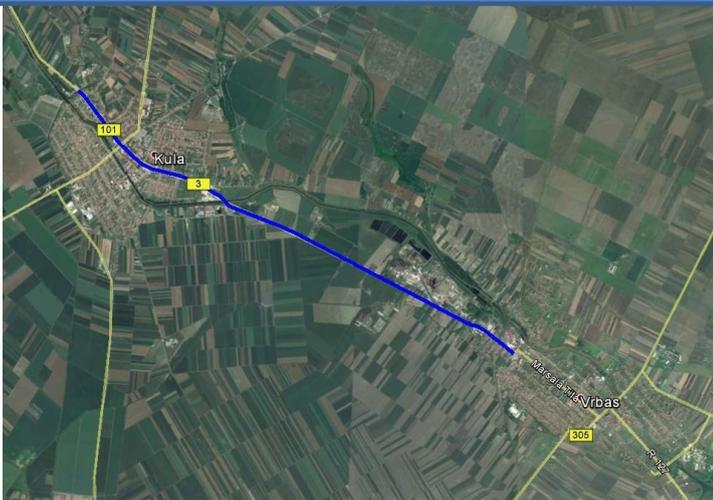
JAVNO PREDUZETE
PUTEBI SRBIJE

ENVIRONMENTAL MANAGEMENT PLAN - FINAL -

Contract ID: RRSP/CS3-IB15KVS/2016-2

PREPARATION OF MAIN DESIGN FOR HEAVY MAINTENANCE (ROAD REHABILITATION - UPGRADING) OF THE STATE ROAD IB 15, SECTION: KULA (BACKA TOPOLA) – VRBAS (SAVINO SELO), L=10,156 km

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ABBREVIATIONS AND ACRONYMS

CEP	Contractor's Environmental Plan
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMP	Environmental Management Plan
IFIs	International Financing Institutions
PINP	Provincial Institute for Nature Protection
PIPCM	Provincial Institute for Protection of Cultural Monuments
MoEP	Ministry of Environmental Protection
MoCTI	Ministry of Construction, Transport and Infrastructure
PERS	Public Enterprise "Roads of Serbia"
PSC	Project Supervision Consultant
RE	Resident Engineer
RRSP	Road Rehabilitation and Safety Project
SLMP	Safety Labor Management Plan
WB	The World Bank Group
WMP	Waste Management Plan
DTD	Danube – Tisa – Danube Canal System
PWMCVV	Public Water Management Company "Vode Vojvodine"

INTRODUCTION

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

The Republic of Serbia plans to invest part of the funds for the project of heavy maintenance (road rehabilitation – upgrading) of the State road IB 15 section: Kula (Backa Topola) – Vrbas (Savino Selo), km 63+696,00 to km 73+852,00.

This Environmental Management Plan (EMP) has been prepared for subject road section, Kula (Backa Topola) – Vrbas (Savino Selo), to ensure application of the good environmental practice and document compliance with the requirements of the International Financing Institutions (IFIs) which finance Serbian Road Rehabilitation and Safety Project (RRSP).

The subject road section is located in Vojvodina and belongs to the state road IB 15 (old road numeration M-3), and it is part of the transversal traffic connection through Backa and Banat, and part of the connection between the state border with Hungary (Backi Breg) and state border with Romania (Nakovo). The road section begins at node 1505,

Kula (Backa Topola), end ends close to node 1506 in municipality Vrbas (Savino Selo). The Project has been classified as Environmental Category B. i.e. a project requiring an EMP pursuant to IFIs Safeguard Policies.

The purpose of the EMP is to present the potential negative environmental impacts and management problems during the rehabilitation works, as well as the necessary mitigation measures and appropriate monitoring program.

The Project Proponent is the Government of the Republic of Serbia, represented by the Ministry of Construction, Traffic and Infrastructure (hereinafter MoCTI) and the project is realized by Public Enterprise "Roads of Serbia" (hereinafter PERS).

The design is under preparation in accordance with Serbian legislation, procedures and policies and IFIs safeguard policies. The preparation of this EMP is undertaken through a desk study and field investigations, including consultations with regional level representatives and local stakeholders.

EXECUTIVE SUMMARY

Project description

The subject road section belongs to South Backa and West Backa Administrative District located in Province Vojvodina. Road section Kula (Backa Topola) – Vrbas (Savino Selo) in the length of 11.05 km belongs to the state road IB 15 (old road numeration M-3) (Official Gazzete RS no. 93/2015).

The beginning of the section is at the entrance in the municipality Kula, at the state road IB 15, at the chainage km 63+696,00 (Fig. 1). The end of the road section is at the state road IB 15, at the chainage km 73+852,00 in the municipality Vrbas, at the intersection of the streets M. Tita and Oktobarska Str. (Fig. 2).



Figure 1. The beginning of the road section – entrance in the municipality Kula



Figure 2. The end of the road section – existing intersection o the streets M. Tita and Oktobarske

Policy, legal and administrative framework

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

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

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

PE „Roads of Serbia” submitted a request to the Provincial Institute for Nature Protection (PINP) in order to acquire the conditions under which the proposed design should be implemented. Acting on the request by PERS, the PINP issued a statement on conditions for nature protection no. 03-661/2 dated 04.04.2017.

PE „Roads of Serbia“ submitted a request to the Provincial Institute for Protection of Cultural Monuments (PIPCM) in order to acquire the conditions under which the proposed design should be implemented. Acting on the request by PERS, PIPCM issued a statement on conditions for protection of cultural monuments no. 02-123/2-2017 dated 06.04.2017.

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

Final Environmental Approval is obtained from the Provincial Secretariat for Urban Planning and Environmental Protection (No. 140-501-640/2017-05 dated 14.06.2017.)

stating that Project Carrier (PERS) is not obliged to conduct EIA procedure for this project. (Appendix 6)

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

In accordance with a statement issued by the PINP, the subject road section is not located within a protected area for which a procedure for protection was carried out or initiated, but subject road section intersects the regional ecological corridor Great Backa Canal. Due to the proximity of the canal Danube – Tisa – Danube Canal System (DTD), it is requested to provide, through design proposal the functionality of the ecological corridors.

In the conditions of the PIPCM is written that along subject road section there is no immovable and movable cultural property of great importance. Since the subject road section is passing close to registered archeological localities, by the Conditions of the PIPCM is requested not to leave corridor of subject road section, and that the Investor has to notify the Institute before the beginning of the works, if earth works are planned at the location of registered archeological localities. Also, if in the case of excavation archaeological remains are found, it is necessary to stop the works and notify the Institute. The archaeologist can prescribe additional requirements according to the situation on site. IFs request that the design be prepared in line with laws of the Republic of Serbia, but also with the EU standards.

Creditors require that the following be applied:

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

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

Baseline conditions assessed during route survey

The subject road section belongs to South Backa and West Backa Administrative District located in Province Vojvodina. Road section Kula (Backa Topola) – Vrbas (Savino Selo) in the length of 11.05 km belongs to state road IB 15 (old road numeration M-3) (Official Gazzete RS no. 93/2015).

The subject road sections pass through municipality Kula and Vrbas.

The road section is located along the canal DTD or intersects it at several points, as well as many other amelioration canals which are listed in the Conditions issued by the Public Water Management Company " Vode Vojvodine " (I-703 / 9-17).

In the beginning part of the road section, on the territory of Kula, existing open canals that gravitate to the Great Backa Canal which is part of DTD will be used as recipients of storm water from the roadway (Figure 3). Designed solution of the road drainage will be in the

meaning of position (layout plan) and height (profile) embedded in the existing canal system.



Figure 3 Existing open canal that gravitate to Great Backa Canal

Intersection no. 1 at km 63+735 (10+970)

At intersection no. 1 is the bridge at the road chainage km 63+735 (Figure 4).



Figure 4 Existing bridge at the road chainage km 63+735

Intersection no. 2 at km 66+925 (6+930) – tubing ϕ 2000mm (Figure 5).



Figure 5 Tubing ϕ 2000mm at km 66+925

Intersection no. 3 at km 67+845 (6+010)

Canal I-64 passes through the solid-headed culvert of non-reinforced concrete, which is located at the roadbed of the approach to the bridge, on the left side of the canal DTD Vrbas-Bezdan (Figure 6)



Figure 6 Solid-headed culvert at km 67+845

Intersection no. 4 at km 72+725 (0+756)

Base on the review of the entrance was noted that the tubing and casing in this part is made of the concrete pipe diameter \varnothing 2000mm (Figure 7).



Figure 7 Culvert at km 72+725

In the center of the town Kula there is a closed storm sewer system (manholes, drains and pipelines), and in this case designed drainage elements will be integrated into the existing state (Figure 8).



Figure 8 Closed storm sewer system

The designer will use the available data relating to the existing storm sewer system.

At the subject road section, at the exit from the town, there is an existing network of self-absorbing open canals (Figure 9), which are the recipients of the designed drainage elements. The existing canal and pipe network is not subject to purification treatment of storm water from the roadway and the future solution will be based on this observation.



Figure 9 Self-absorbing open canals

Storm water from the bridge over Great Backa Canal and access roads, at the exit of the town Kula, and water that drains from the roadway into the amelioration canals (drains, manholes and pipelines) will be treated prior to the outlets through adequate filtering systems (installation of grease and oil separator in order to suit the quality of the effluents by the class II regulation concerning Regulation on Water Classification (Official Gazette of SRS, no. 5/68) and in accordance with Regulation on limit values for emissions of pollutants in water and deadlines for their achievement (Official Gazette, no. 67/11, 48/12 and 1/16).

Existing two water intakes are located outside the zone of the road influence, and special protection measures will not be taken.

On parts of the subject road section that passes through the area where there is no existing canal network, open canals will be designed for which recipients do not exist, so they will have a function of self-absorbing open canals (the last part of the section Kula - Vrbas).

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

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

deadlines for their achievement (Official Gazette, no. 67/11, 48/12 and 1/16). Surfaces from which oiled atmospheric water are collected must be waterproof.

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

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

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

On the right side of the road, in the area of the municipality Kula, Great Backi Canal is located in a distance of 150-600 m away from the subject road. At the exit of Kula road crosses the canal at chainage km 67+425.

From km 69+200 to km 72+550 on the right side of the subject road a local railway track Vrbas-Sombor is located.

In industrial zone Vrbas there are several railway tracks on chainages km 72+060 and km 72+580, owned by the company "Sunoko" and "Carnex" (Fig. 10).



Figure 10. Intersection with railway – track to “Carnex”

At chainage km 73 + 490 is intersection with track railway Belgrade-Subotica-State border. (Fig. 11).



Figure 11. Intersection with railway

For section Kula – Vrbas, seven-days of continuous traffic counting was performed and the existing traffic load of 6,845 vehicles/day is collected.

Along the subject state road IB 15 section Kula – Vrbas there is 2 connections with the local municipal roads and 18 connections with the streets as well as connections with the

industrial buildings and individual approaches to private buildings and plots or recreational areas.

Along the subject road section there is 7 bus stops, from which 6 are standard dimensions, built from asphalt outside of the road and satisfy safety conditions to enable safe bus approach from/to the main road, as well as visibility of other traffic participants.

Bus stop at the entrance to the city of Kula is at the earth widening along the road and doesn't satisfy regulations and standards (Fig. 12).

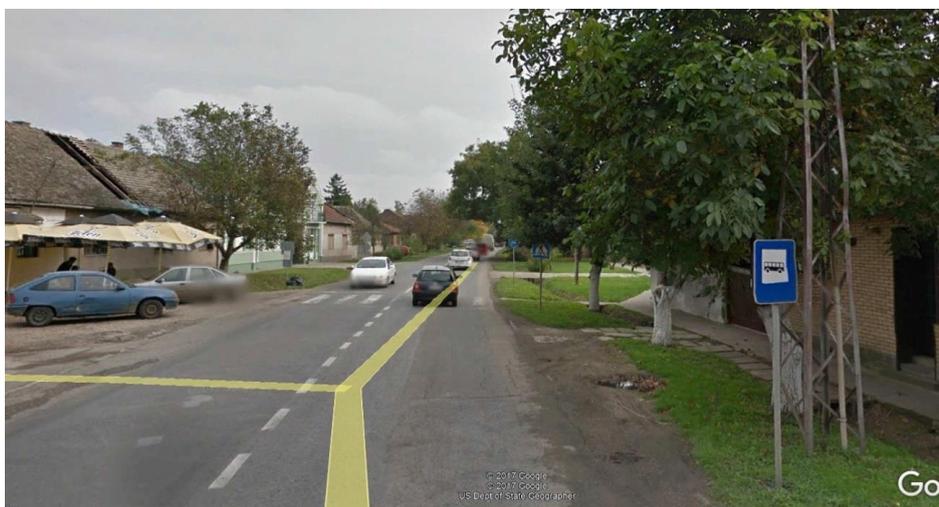


Figure 12. Existing bus stop at the entrance in Kula

Existing road section belongs to network of local and regional roads and after rehabilitation works no increase of road traffic is expected, as well as increase of vehicle speed.

Summary of Environmental Impacts

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

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

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

Impact on the quality of water in the canal DTD is expected to be minimal or negligible, since the expected amount of water drained from the carriageway is small.

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

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

Environmental Management Plan

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

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

Stakeholder engagement - Information disclosure, consultations and public participation

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

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

Summary of public disclosure process

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

1. PROJECT DESCRIPTION

Cross section of the existing road consists of two traffic lanes ~6.8-7.0 m total width, on the section where bicycle path is in the pavement, total width is ~ 9.0 m.

Shoulder width varies from 1.2 to 1.5 m, with some places widened for a bicycle path or walkways.

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

In the center of the town Kula there is a closed drainage system, ie. water from the roadway sinks further into the storm sewers.

In settlements Vrbas and Kula there are defined pedestrian paths and in the industrial zone at the entrance in Vrbas, while on the remaining part of the subject road section bicycle traffic is carried on carriageway or mentioned widening of the shoulders.

New designed geometrical profile consists of:

- two traffic lanes $t_v = 3,25$ m
- two marginal strips $t_i = 0,35$ m
- shoulders $b = \text{min } 1,25$ m
- bicycle path $t_{bic} = 1,00$ m
- pedestrian path $t_{ped} = 1,00$ m

Total width of the subject road is 7.60 m, with shoulders on both sides, i.e. bicycle paths. Newly designed road section is conditioned by the position of the existing road, that is, by the borders of road reserve and terrain configuration.

Width of the carriageway of subject road in settlements is 7.60 m. Because of the limitations existing side structures proposed bicycle paths are partially guided next to the road, separated from the pedestrian pathways, or close to existing objects where it is defined as a bicycle- pedestrian path in width of 2.0 m.

Design of the new road alignment was developed, taking into account the Terms of Reference, all obtained requirements and approvals of the responsible institutions, and rulebooks and standards in road design. Given that the existing roadway width and geometric elements generally correspond to the range of the road, in the framework of the design proposal, the biggest changes will relate to the correction of the bicycle path in the cross-sections of the road.

On the subject road section, in accordance with the existing state, bus stops are planned off-road. The width of the bus stop is 3.0 m.

Along the subject road section from Kula to Vrbas bicycle-pedestrian paths are designed.

Location Description

The subject road section belongs to South Backa and West Backa Administrative District located in Province Vojvodina. Road section Kula (Backa Topola) – Vrbas (Savino Selo) in the length of 11.05 km belongs to state road IB 15 (old road numeration M-3) (Official

Gazette RS no. 93/2015), and it is part of the transversal traffic connection through Backa and Banat, and a part of connection between the state border with Hungary (Backi Breg) and state border with Romania (Nakovo).

The beginning of the section is at the entrance in the municipality Kula, at the state road IB 15, at the chainage km 63+696,00. The end of the road section is at the state road IB 15, at the chainage km 73+852,00 in the municipality Vrbas, at the intersection of the streets M. Tita -(I6.15) and Oktobarska.

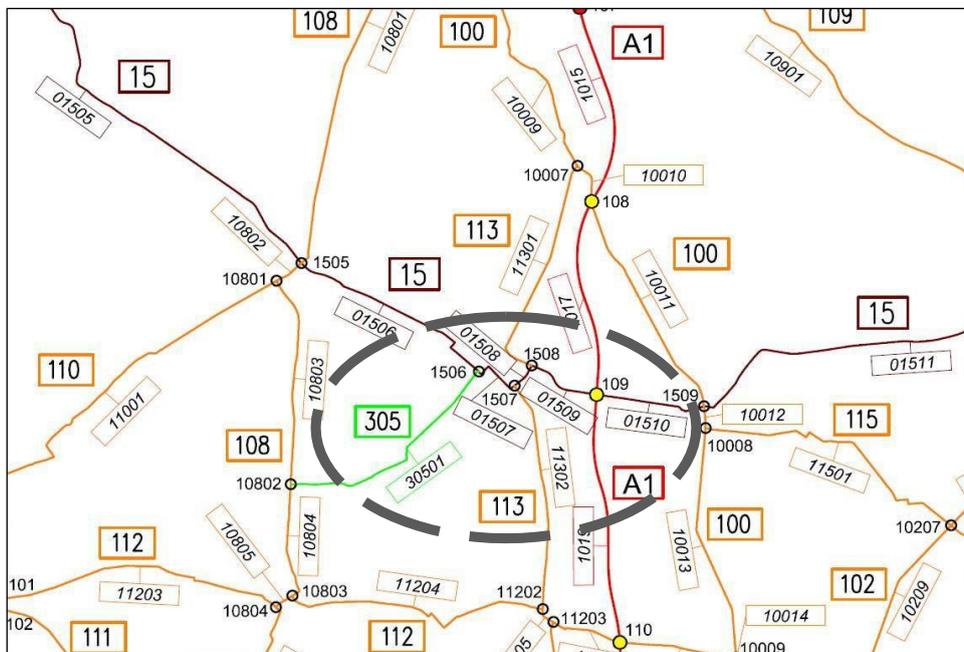


Figure 13. Location of road section

Rehabilitation works description

The design for the rural part of the subject road section proposed road widening to the minimum required width of 7.2 m and 10.2 m in area with a third lane for realignment.

On the part of the road section through the settlements, where bike paths are part of a carriageway it is narrowed to the width 7.20 m and the formation of bike paths off-road. (Fig.14)



Figure 14. Existing bicycle path in the carriageway

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

For the rest of the road section, it is necessary to remove the damages caused by the erosive action of water, as much as possible to remove the causes which led to the damages, to increase utility value, the durability of the road, and traffic safety (Fig. 15 and Fig.16).

Apart from the mentioned, by subject documentation is predicted the rehabilitation of existing structures, retaining walls, culverts, bridges, and the rehabilitation of the protective pedestrian and the safety barrier (Fig. 17 and Fig. 18).

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



Figure 15. Example of damage of the road section



Figure 16. Existing state of the carriageway – different pavement type



Figure 17. Crack in the pavement at the end of the structure



Figure 18 repair of the bottom part of the pier



Leackage through the first and the second support

The designed drainage system is caused by the terrain characteristics, spatial and urban constraints, conditions issued by the Public Water Management Company "Vode Vojvodine" (PVMCVV), and other requirements dictated by the local government. Along the subject state road there is some typical solutions of drainage systems, as follows:

- existing closed drainage system for populated areas - draining rainwater from the roadway by longitudinal and transverse inclination towards the drains and manholes, and then through the existing storm sewer to some of recipients, amelioration canals.

This kind of system is predicted for:

- o from km~64+700 to km~65+800 (center of Kula)

In accordance with article 19 of Regulation of limit values of the emission of pollutants in the water and the deadlines for their achievement (Official Gazette, no. 67/11, 48/12 and 1/16), the obligations of the Municipality Kula are to build the plant for waste water treatment at the latest by 31.12.2040

- newly designed closed drainage system in urban areas - also with draining rainwater from the roadway by longitudinal and transverse inclination towards the drains and manholes and collectors. The difference compared to the previously mentioned system is that it is a newly designed separate systems for discharging runoff collected rainwater whereby prior to discharge into the recipient water would be purified by passing through an appropriate separator for fats and oils, but before pouring into the recipient. That is, the construction of suitable separator of oils and fats would be subject of planned works of road rehabilitation of the state road

This kind of system is predicted for:

- o from km~63+734 to km~64+700 (from the intersection with an overpass at the beginning of road section to the existing closed drainage system in the center of Kula). Predicted drainage system in this section is optional and can be realized only in cooperation between the client (PERS) and local governments (Kula Municipality), since it is necessary for the implementation of such a system to collect water with sewage pipes through the surrounding streets Dositelja Obradovica and Branka Radicevica to the irrigation canal I-61. Predicted drainage system on this

part of the road is conditioned by the request of local government and the analysis of traffic safety of the state road along which bicycle path are planned that can be realized only if the existing road's open ditches are replaced with closed sewer pipe system.

- from km~66+925 to km~67+300 (from the intersection with piped canal I-61 to the beginning of the approach to bridge across the canal DTD). On this road section closed drainage system is caused by the parallel provision of irrigation canal I-61 or by the request of conditions PWMCVV which does not allow the contaminated water to be spilled directly from the roadway without pre-treatment and purification.
- from km ~72+733 to km ~73+501 (from the intersection with the piped canal KS-III to the intersection with the main railway track Beograd-Subotica). The necessity of implementing of such a system in this part of the road is the result of very poor drainage conditions and on the other hand the opportunities provided by the existing piped water canal. Especially poor conditions of drainage on this section are at the km ~ 73 + 230 (the beginning of the residential part of the Vrbas on the right side) to km ~ 73 + 501 (intersection with the main railway), where all the storm water from the carriageway flow into an existing concrete canal along sidewalks, which is significantly lower than the road and the surrounding area, without the possibility to drain water to a recipient.

- newly designed closed drainage system at the intersection with amelioration canals and canal DTD. Due to the demands of PWMCVV which prohibits the direct discharge of contaminated water from the carriageway in amelioration canals, at the intersection of the road with the amelioration canals it is foreseen to collect water from the carriageway along curbs and longitudinally lead by slope gutters which will take water down the slope of the embankment to the concrete canals which flow into the irrigation canal. Before being discharged into amelioration canals collected water will be purified through a suitable separator for fats and oils. This system is designed in approximate lengths of 100-150m before and after the intersection with the amelioration canal and the exact length will be determined by a detailed elaboration of this design. Crossings that have provided such a system drains are:

- intersection with the canal DTD and I-64 at the exit from Kula (km~67+435 и km~67+510), at the section Kula - Vrbas

- open drainage system - with the rainwater draining from the roadway by longitudinal and transverse inclination over the shoulders, and the slope of the road in the open self-absorbent ditches in which water infiltrates into the ground or evaporates in the air. This solution was applied to all subsections in which such a drainage system figures and in the context of the current situation, and where there are no spatial or urban hinderance/restrictions for this kind of drainage, both, outside populated areas, as well as where the state road passes through the village.

It is important to note that although in the applicable urban planning documentation states that the drainage system of roads in populated areas Kula and Vrbas makes network of closed storm sewer and open road ditches that all gravitate towards the network of amelioration canals, this still cannot be accepted as accurate information because the network of open ditches is greatly destroyed (buried, interrupted, etc.). This fact is of particular importance for the proper sizing and defining of design solutions for drainage system of the road trunk and carriageway, and it is confirmed in the minutes of meetings with representatives of the PE Komunalac which manages these systems in Kula and Vrbas.

2. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Relevant Institutions

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

Existing Serbian legislation

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

EIA procedure in the Republic of Serbia

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

In the statement no. 03-661/2 dated 04.04.2017. the Provincial Institute for Nature Protection (PINP) issued conditions for the subject road section. By reviewing the Central Register of Protected Goods and documentation of the PINP, and in accordance with the legislation governing the field of nature protection concluded that the subject area is not situated within a protected area, but subject road section crosses regional ecological corridor Great Backa Canal. Since the works are planned only in the existing road area, planned works do not endanger nearby area of ecological corridor.

In the statement no. 02-123/2-2017 dated 06.04.2017 PIPCM issued technical protection measures needed for development of project technical documentation. It states that there is no immovable cultural property of great importance and that it is necessary to notify Institute when the works are about to begin, as well as obligations of the Contractor/Investor during the project implementation.

Final Environmental Approval is obtained from the Provincial Secretariat for Urban Planning and Environmental Protection (No. 140-501-640/2017-05 dated 14.06.2017.) stating that Project Carrier (PERS) is not obliged to conduct EIA procedure for this project. (see Appendix 6). Consequently, that there is no need for producing the Environmental Impact Study of the subject section of the state road.

Relevant IFIs Policies and Statements

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

- World Bank: Operational Policy OP 4.01, environmental impact assessment, which requires a partial Environmental Impact Study and a suitable EMP for environmental category B projects;

- EBRD: Environmental and Social Guidelines 2008;
- EIB: Statement on Ecological and Social Principles and Standards (2008).

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

3. BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY

The subject road section (Kula – Vrbas) belongs to South Backa and West Backa Administrative District located in Province Vojvodina, to municipalities Kula and Vrbas.

There are no protected natural or cultural properties in the vicinity of the subject road section. On the other side, part of the subject road section intersects regional ecological corridor Great Backa Canal. Anyhow the ecosystem of canal DTD is not exposed to risk from the existing road, since an appropriate system for runoff water exists, which will be kept and improved according to this rehabilitation design, and all other works which are proposed with this design will be conducted only in the existing road area and completely in accordance with Statement no 03-661/2 dated 04.04.2017. issued by PINP.

On the right side of the road, in the area of the municipality Kula, Great Backa Canal is located 150-600 m away from the subject road. At the exit of Kula road crosses the canal at chainage km 67+425.

The existing drainage system in the aforementioned section of the state road is characterized by two distinct types of drainage systems, as follows:

- open system for drainage of rain water from the carriageway roads by means of longitudinal and transverse inclination over slopes (covered with grass) to open road ditches that flow to a given recipient, or if they do not have a clearly defined inclination toward a water stream (the recipient), they themselves are recipients for the purposes of self-absorbing canal where the water infiltrates into the ground or evaporate.
- closed drainage system by collecting atmospheric water from the pavement through longitudinal and transverse slopes to the curbs, drains, shafts and drainage of collected water through the sewage pipe to the discharge into the recipient.

In existing state closed drainage system is used at the road section which passes through center of Kula (km~64+700 – km~65+800), and along all other parts of the subject road section an open drainage system is used.

The planned sewage system should solve the problem of rainwater disposal and purification in the municipality of Vrbas, as well as to accept and take away the waste water of the municipality of Kula to the planned central wastewater treatment plant.

A separate sewage system is planned for the discharge of waste water from the population in the municipality of Vrbas.

The planned separate sewage system, with Vrbas as the main user, will expand, encompassing all settlements within the area of the municipality of Vrbas.

In accordance with the current trend in the world, regarding the treatment of wastewater as well as the controlled discharge of purified wastewater into the recipient, the construction of a central wastewater treatment plant is planned. The planned central purification plant should enable the purification of waste water in the municipalities of Vrbas and Kula.

Along the subject road section there are no large industrial facilities that would lead to a cumulative effect on the environment. Although the municipality has a problem with unregulated landfills (waste dumps), in the immediate environment of the road, within the road belt, i.e. in the zone where the works on roadway rehabilitation will be carried out, the designer did not identify the existing landfills.

From the chainage km 69+200 to km 72+550 on the right side of the road there is a track of the local railway Vrbas-Sombor. In the industrial zone of Vrbas, there are several industrial tracks on the stationeries km 72+060 and 72+580, owned by companies Sunoko and Carnex.

For the section Kula - Vrbas, continuous seven-days traffic counting was performed and an existing traffic load of 6845 vehicles/day was obtained.

On the route there is a large number of connections with municipal roads and local streets, as well as numerous individual approaches to private facilities and plots.

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

Settlements

Municipality Kula

The beginning of the section can be defined as a city and mixed road type. The road passes also through the center of Kula, and apart from local traffic, it is characterized by large seasonal cargo traffic of transit character.

After the exit from Kula all the way to the end of the section at the intersection at the entrance to Vrbas, the route can be characterized as a typical rural with the passage through industrial zones at the exit from Kula and at the entrance to Vrbas, where there are local connections.

The municipality Kula consists of six cadastral municipalities: CM Kula, CM Crvenka, CM Sivac, CM Ruski Krstur, CM Kruščić and CM Lipar. The territory of the cadaster municipalities of the administrative municipality of Kula has a total area of 48,146.11 ha. According to the size of the territory of 481.5 km², the Municipality of Kula is among the medium-sized municipalities in Vojvodina.

According to the last census (2002), there are 49,531 inhabitants in 7 settlements in the municipality. The Municipality of Kula has an average population density of 102.5 inhabitants per 1km².

In the area of Kula Municipality there is an infrastructure of three types of traffic: road, rail and water.

Road traffic - road infrastructure has built roads of a different hierarchical level, which do not meet all transport requirements. The existing network of state roads I and II level do not provide a satisfactory level of connection between the municipality and the surrounding area and wider territory.

One state road of the I level (M-3) passes through the municipality area in direction: the border crossing "Bogojevo" - Odzaci - Kula - Srbobran - Vrbas - E75 - Becej - Kikinda - the border of Serbia with Romania, which diametrically crosses the territory of the municipality in the west-east direction, the recipient is of the majority of integral movements within the municipality and directs them to the desired destinations.

Municipality Vrbas

The area of the Municipality of Vrbas covers an area of 37,562.85 ha.

The territory of the municipalities of Kula and Vrbas is dotted with a network of canals belonging to the DTD hydrosystem: Vrbas-Bezdan canal from km 0+000 to km 11+800, canal Becej-Bogojevo from km 28+300 to km 61+200, canal Novi Sad-Savino Selo from km 38+000 to km 39+100 and canal Jegricka from km 43+200 to km 65+140.

In the area of municipalities there are also melioration canals belonging to the subsystems KC-III, K-IV, SV, VKC-V, Jegricka, BB and 02 Vrbas. Subject canals are in functional condition.

Great Backa Canal, the most important in the DTD canal system in the territory of the Municipality of Vrbas, is category III, but it is very polluted and muddy through the Municipality of Vrbas, which completely disrupts biodiversity and the canal is closed for sailing.

Bicycle traffic

The promotion of cycling traffic should be at the highest level in order to make this type of transport as popular as possible. During the preparation of planning documents, within the street cross-section, it is necessary to plan cycling routes on all major roads throughout the territory of the municipality of Vrbas. The planning of bicycle paths should be directed towards connecting Vrbas with settlements, as well as their interconnection along the state and local roads, as well as along the canals of DTD system.

A special accent is given to the tourist and recreational cycling path that should connect the most important tourist sites and the largest part of the settlement of Vrbas municipality.

Railway traffic

The plan defines the provision of the following railroads:

- railway number 33 Becej-Sombor is single-track and non-electrified and its electrification is foreseen;
- revitalization of the railway line Kula-Savino Selo-Gajdobra-Backa Palanka;
- -construction of an industrial track in Vrbas and connection of the cargo pier with the railway.

In addition to this, it is possible to connect the industrial tracks of sugar factory "Backa" in Vrbas (with the consent of the same one) with the planned industrial tracks of the working zone in Kula, which is located between the sailing canal Becej-Vrbas and the state road of the level I.

Watercourses

Subject network of amelioration canals and canals of the DTD are the main recipients of the whole subject area.

Subject road section Kula - Vrbas intersects with following canals:

No.	Canal Name	Canal Chainage	Road Chainage
1	I-61	10+970	~63+735
2	I-61	6+930	~66+925
3	DTD	12+350	~67+435
4	I-64	6+010	~67+510
5	KC-III	0+756	~72+735

Air

There are no significant additional sources of air pollution within the planned road section Kula - Vrbas. No information on the measured air pollution values on the subject section was available.

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

Noise

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

4. SUMMARY OF ENVIRONMENTAL IMPACTS

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

INFLUENCE	SIGNIFICANCE	COMMENT
Impacts on land use and settlements	low	During the realization of the project, there will be no expropriation of land
Ground and surface water	low	Due to low amount of water that can come to the recipient by drainage, the consequential impact is minimal to negligible
Air quality	low	Temporary impact
Flora and fauna (protected areas and species)	low	Under the terms of the Provincial Institute for Nature Conservation
Monuments	low	Under the terms of the Provincial Institute for Protection of Cultural Monuments
Noise	low	Temporary impact
Access/crossing points of the main road and local roads	low	The rehabilitation and widening works will not affect existing crossing points. Without impact.
Soil management	low	With the application of appropriate measures of waste management.
Waste	low	Ensured through environmental management – waste and wastewater management plan will be prepared and implemented
Cumulative impacts	Moderate/minor	Temporary, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only

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

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

EMP relates to the road rehabilitation phase and is part of the relevant agreement for implementation and future commitment of the Contractor. The following problems may

occur during the rehabilitation works: disturbance in the traffic and movement of residents from local settlements, decreased road safety, damages on access roads, noise pollution, dust emission, inefficient waste disposal, air pollution, impact on the soil, water, flora and fauna. The works outside the site area, such as the works in a quarry, asphalt plant and borrow-pits may have local negative impact and must therefore be managed properly.

Overview of Key Impacts

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

Noise and Air Pollution in Residential Areas

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

Possible water contamination

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

Potential Cumulative Impacts

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

Other Impacts:

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

5. ENVIRONMENTAL MANAGEMENT PLAN

Environmental impacts of the project for heavy maintenance on the section Kula – Vrbas will be insignificant and reversible. Mitigation measures provided in the EMP, relating to the design, road rehabilitation and operational phase, must be carried out appropriately. EMP consists of the Mitigation Plan and Monitoring Plan and is based on the types of environmental impact, their scope and duration. PERS manages the design, supervision and the contractor in the implementation of EMP

A. MITIGATION PLAN

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

Site Organization Plan

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

- ❖ Temporary locations for storing the construction and other material and equipment must be outside the area with high vegetation and river flood areas and limited only to the duration of the works;
- ❖ Temporary or permanent locations must be provided (the existing organized communal facilities/ landfills) for disposal and tipping of debris and other waste material in any form and communal waste produced during the works. Waste disposal/ dumping into the canal DTD littoral zone shall be prohibited, as well as at the unorganized local waste dumps;
- ❖ After the completion of the works, all areas that have been degraded in any way by road rehabilitation works must be rehabilitated as soon as possible;
- ❖ During the works, the planned road sections and corridors around it must be followed, so that the earthworks and machinery do not affect the surrounding areas. Also, the existing road network must be used, without building new roads, to prevent habitat fragmentation;
- ❖ During the road works directly along the canal DTD, river bed, river bank and littoral vegetation must be preserved as much as possible;
- ❖ Vehicle and machinery servicing on the road section shall be prohibited. In the event of a road traffic accident resulting in oil or service fluids spillage, the road area must be cleaned and reinstated;
- ❖ On the parts where the section is located in a populated area the works must be performed only during the day, to minimize the impact of noise on local residents;
- ❖ Guardrails and pedestrian crossings must be placed where necessary;
- ❖ Locations for containers for temporary tipping of communal waste produced during the works must be determined;

- ❖ The area for Contractor's facilities must be of the smallest possible size, to avoid unnecessary removal of vegetation. All facilities must be fenced;
- ❖ Appropriate drainage of the site must be provided. Locations used for car parking, workshops and fuel storages must be drained toward the oil-water separator;
- ❖ Only trained workers, who can remove any consequences of accidental spillage, may handle the fuel;
- ❖ Waste oil, oil filters and fuel must be stored on safe locations.
- ❖ Sanitary wastewater and polluted water must be treated before the water is discharged into the surface water flow system, in line with the Law on Water (RS Official Gazette of RS, No 30/10, 93/12);
- ❖ Contractor must provide safety measures to prevent soil erosion and use the methods to decrease the storm water runoff that carries eroded material;
- ❖ Excavations and machinery works must be avoided when the soil is damp;
- ❖ Upon the completion of works, machinery, construction material, containers and all other equipment must be removed in due time;
- ❖ When the site is ready to be closed, all contaminated soil must be excavated and replaced with a new layer of soil;
- ❖ Upon the completion of works, the soil must be cultivated on all the critical locations, using suitable plants which are biologically adapted to the subject climatic conditions, resistant to air pollution and visually fitting for the surrounding area. Invasive species, such as the black locust, Indigo bush, ash leaf maple, ailanthus, American ash and species that cause allergic reactions, such as poplar, should be avoided.

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

Environmental Protection Plan

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

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

Environmental Protection Plan consists of the following:

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

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

Safety

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

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

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

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

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

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

Operational Phase

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

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

B. MONITORING PLAN

Basic components of the Monitoring Plan are:

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

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

C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS

Project Implementation

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

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

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

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

PERS shall also be responsible for the following:

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

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

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

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

The Contractor Reporting Arrangements

1. Contractor to PERS

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

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

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

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

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

2. Project Supervisor Consultant to PERS

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

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

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

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

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

6. STAKEHOLDER ENGAGEMENT - INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

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

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

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

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

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

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

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

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

7. REFERENCES

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

APPENDICES

APPENDIX 1 MITIGATION PLAN

MITIGATION PLAN

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
Pre-construction	Main Design			
	Following the environmental protection procedure	Conditions from the PINP and PIPCM, Petrovaradin are obtained to avoid environmental risks	PERS And Main Design Designer- Consultant	PERS
	Site location and organization will be approved by PERS and selected so as to:	<ul style="list-style-type: none"> - be outside of the regional ecological corridor of canal DTD - have no impact on the environment and the local community (noise, dust, vibrations etc.) - be outside the high vegetation area - 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, in accordance with the Law on Water (RS Official Gazette No 30/10, 93/12) - properly drain the locations. Paved areas, including parking areas, workshops and fuel storages must be drained toward an oil-water separator - whenever possible, limit the area to be cleared and avoid topsoil degradation - the material removed will be collected, disposed and/ or re-used as needed - prevent soil erosion on site - contractor is responsible for implementing the measures for erosion protection 	PERS Contractor	PERS

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		<ul style="list-style-type: none"> - contractor shall limit the scope of the excavations to mitigate soil erosion - contractor shall implement soil conservation method in sensitive areas to prevent or minimize the storm water runoff, which causes material erosion - contractor is to avoid excavation and machine operations in damp site conditions. 		
Construction	<p>Selection of the location for temporary settlement construction, in the vicinity of or within an existing settlement</p> <p>Influence on public health and sociological circumstances</p>	<ul style="list-style-type: none"> - minimum distance must be kept (buffer zone) between the site and the nearest populated area - influence of the local conditions must be accounted for (wind) to avoid or minimize harmful effects -contractor's EMP defines health and safety and environmental measures - independent water and electricity supply, in addition to a medical service station on site must be planned for. 	Contractor	PERS
	Safety of pedestrians and suitable crossings	- a suitable pedestrian crossing must be provided, equipped with kerb ramps that allow the use of wheelchairs, trolleys, bicycles and prams.	Main Design Designer- Consultant	Main Design Technical Control PERS
	Stakeholder engagement	Details of the proposed road section, access points and safety features will be disclosed at the location of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered will be recorded in the Main Design.	PERS and Main Design Designer- Consultant	Main Design Technical Control PERS
		Management plans		

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	Contractor shall prepare the implementation of the Plans described in the EMP, to ensure that the legislation and Creditor's requirements have been met: <ul style="list-style-type: none"> - Site Organization Plan - Sewerage and Wastewater Management Plan - Soil Management Plan - Dust Management Plan - A plan indicating the location of borrow-pits, and measures for recultivation of borrow-pits and access roads after the project is completed - Waste and Wastewater Management Plan, in line with the Law on Waste Management (RS Official Gazette No 36/09, 88/10, 14/16) - Oil and Fuel Storage Management Plan - In-river Works Management Plan - Emergency Response Plan - Complaints Procedure - Safety and Hazard Assessment - Safety and Labor Management Plan 			
Construction		Site Induction		
	All workers and visitors to the site shall be given a health and safety induction and instructed on the need to use PPE.			
Construction		Material Supply		
	asphalt plant: dust, fumes, health and safety of workers, ecosystem disturbance	- use the existing asphalt plants; - requirement for official approval or valid operating license	asphalt plant	asphalt plant
	quarry: dust, health and safety of workers, ecosystem disturbance	- use the existing quarries; - requirement for official approval or valid operating license	quarry	quarry

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
	sand and gravel borrow-pits: river bed disturbance, quality of water, ecosystem disturbance	- use the existing borrow pits or buy material from licensed separation facilities; - requirement for official approval or valid operating license	contractor or gravel and sand separation facility	contractor or gravel and sand separation facility
Construction	Material Transport			
	asphalt: dust, fumes	- all trucks need to be covered - contractor's machinery to be carefully selected	truck operator	truck operator
	stone: dust	wet truck load	truck operator	truck operator
	sand and gravel: dust	wet truck load	truck operator	truck operator
	management of traffic noise, exhaust fumes and road congestion	- haul material at off-peak traffic hours (9-14h) - use alternative roads to avoid main roads - proper road signs and markings of the site, to minimize chances of a wrong turn	transport manager truck operator	transport manager truck operator
	Possibility of encountering an archaeological site	if an archaeological site is encountered, contractor shall immediately suspend the works and inform IPCM and PERS.	contractor	contractor's supervision
Construction	Construction Site			
	negative impact of noise on the workers and local community	- limit the activities to daylight working hours - use equipment with noise mufflers, licensed and approved in accordance with the EU standards - use noise barriers for the works that produce noise for more than one day on the same location.	contractor	contractor

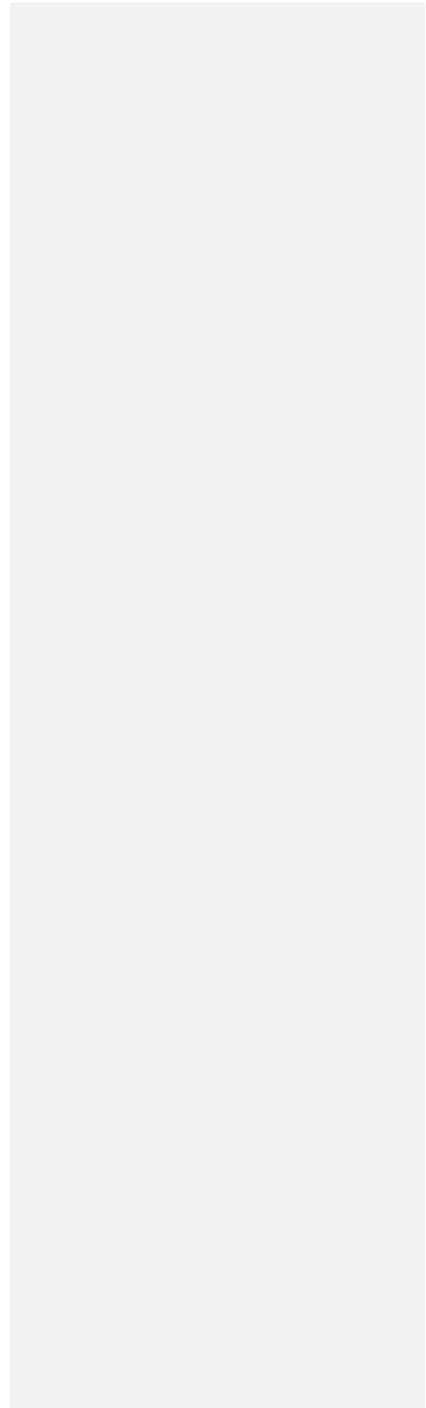
Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		- locate noise-making equipment as far away as possible from residential buildings and other noise-sensitive receptors.		
	dust	- spray the problematic areas on site with water - cover the material stored and limit vehicle speed - implement the Dust Management Plan: measures for avoiding dust emission, including hoarding, spraying the problematic areas, accesses, material and stockpiles during the loading and unloading activities, covering the trucks that carry dusty material, washing the trucks etc.	contractor	contractor
	vibrations	- limit activities to daylight working hours - if there is material damage to the local houses, buildings and infrastructure (access roads included) caused by the works, the damage will be compensated for and will have to be rectified - locate the equipment for earth works as far away as possible from vibration-sensitive receptors	contractor	contractor
	traffic disruption during construction activities	- Traffic Management Plan with appropriate measures for traffic diversions that can be easily noted and followed, including traffic police assistance - Traffic Management Plan which will define a speed limit for the construction vehicles and organise traffic in such a way that populated areas are avoided as much as possible - During the works, maximum use of the existing road network. Avoid the construction of new temporary roads, which would increase the habitat fragmentation - inform the local community about the works planned	contractor	contractor

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

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

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

Phase	Issue	Mitigation measure	Institutional responsibility	
			Implementation	Supervision
		pedestrian crossing, school, slow traffic zone), reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility, warning signs on locations considered appropriate in line with good engineering practice or as agreed with the authorities		



APPENDIX 2 MONITORING PLAN

MONITORING PLAN

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

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

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

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

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

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

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

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

2. Status of the Environmental and Social Action Plan

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

3. Environmental Monitoring Data¹

Please provide the name and contact details for your environmental manager:				
Parameter ²	Value ³	Unit	Compliance Status ⁴	Comments ⁵
Waste Water				
Total waste water generated				
BOD				
COD				
Suspended Solids				
Phosphorus				
Nitrates				
Heavy metals				
[Other]				
Air Emissions				
SO ₂				
NO _x				
Particulates				
CO ₂				
CH ₄				
N ₂ O				

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

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

³ Please ensure that the units of measurement are clearly stated

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

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

Please provide the name and contact details for your environmental manager:				
Parameter ²	Value ³	Unit	Compliance Status ⁴	Comments ⁵
HFCs				
PFCs				
SF ₆				
[Other]				
Other Parameters				
Noise				
[Other]				
Solid Waste				
Please provide details of the types and amounts of solid wastes generated by the project. Indicate where wastes are classified as hazardous. Indicate the final re-use, recycle or disposal method for each waste type.				

4. Resource Usage and Product Output			
Parameter	Value	Measurement Unit	Comments ⁶
Fuels used			
Oil			
Gas			
Coal			

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

4. Resource Usage and Product Output

Parameter	Value	Measurement Unit	Comments ⁶
Lignite			
Grid Electricity			
Heat Purchased			
Feedstocks and raw materials consumed			
Name 1			
Name 2			
Product output			
Product 1			
Product 2			

5. Human Resources Management

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

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

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

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

Please provide the name and contact details for your Health and Safety manager:					
	Direct employees	Contracted workers		Direct employees	Contracted workers
Number of man-hours worked this reporting period:			Number of Fatalities ⁷ :		
Budget spent on OHS in this period (total amount and currency):			Number of disabling injuries:		
OHS training provided in this period in person-days:			Number of Lost Time Incidents (including vehicular) ⁸ :		
Number of lost workdays ⁹ resulting from incidents:			Number of cases of occupational disease:		
Number of sick days:					
Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):					
Please provide details of any fatalities or major accidents that have not previously been reported to EBRD, including total compensation paid due to occupational injury or illness (amount and currency):					

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

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

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

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

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

7. Stakeholder Engagement

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

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

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

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

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

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

Existing Land Acquisitions

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

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

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

9. Community Interaction and Development

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

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APPENDIX 3 LEGISLATION

RELEVANT SERBIAN ENVIRONMENTAL LEGISLATION:

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

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

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

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

Other relevant Serbian legislation

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

Law on public roads (RS Official Gazette No 101/2005, 123/07, 101/11, 93/12, 104/13).

APPENDIX 4 STAKEHOLDER ENGAGEMENT

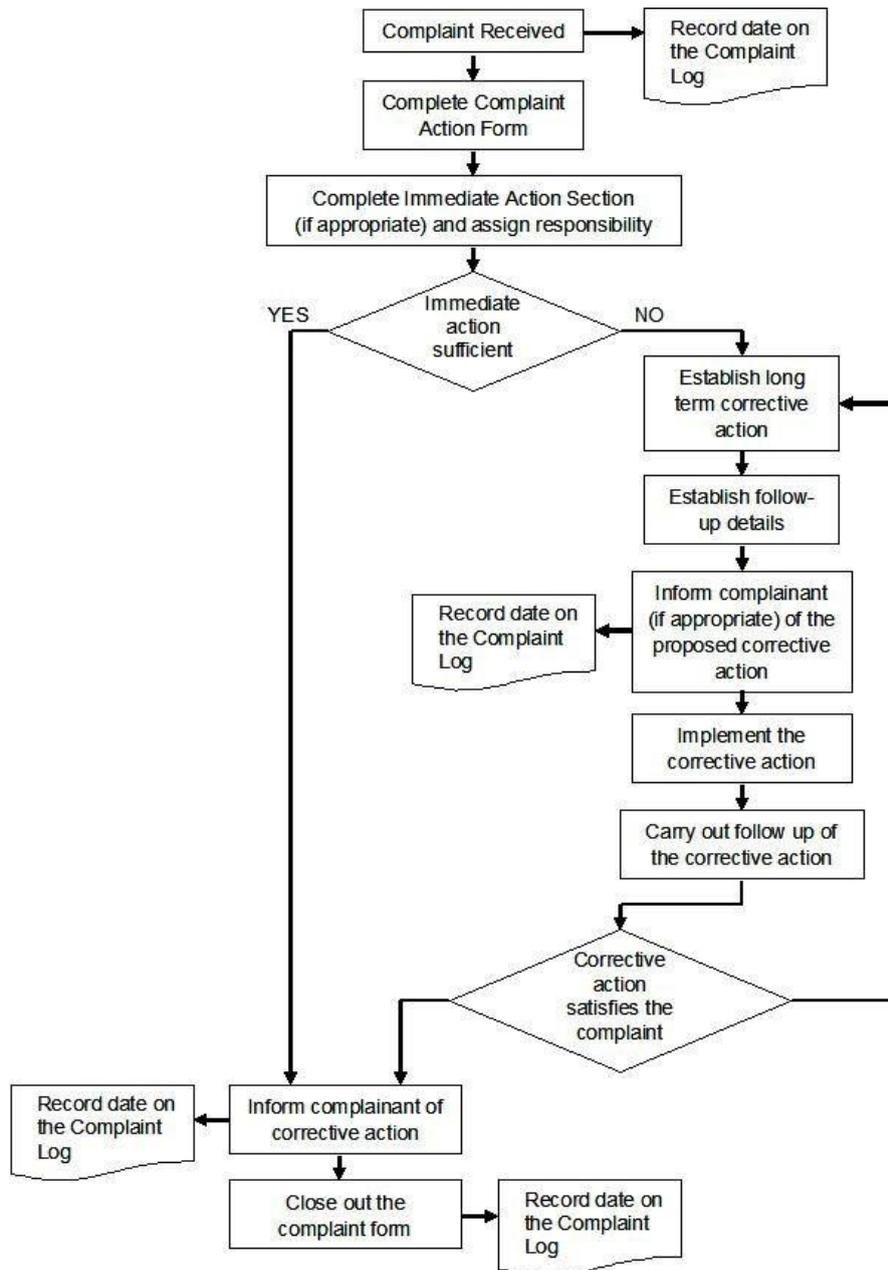
Identification of stakeholders

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

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

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

Grievance mechanism and form



Grievances are to be resolved within 15 working days.

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

REPORT ON PUBLIC CONSULTATION, VRBAS, 30.01.2018.

In accordance with OP 4.01 World Bank, PE "Roads of Serbia" has prepared a document - Environmental Management Plan for work on urgent maintenance and rehabilitation of State Road No. IB. 15, section: Kula (Backa Topola) – Vrbas (Savino Selo) of the length of 10.156 km.

Presentation of the Environmental Management Plan began on January 17th 2018, the invitation to interested parties in the daily newspaper Politika was published, which was inviting the public auditorium, authorities and institutions to inspect the proposed rehabilitation works and environmental impact with present mitigation measures and monitoring. Prior to announcement in the newspapers, all the documents were submitted to the Municipality of Vrbas and publicly available on the spot, and also placed on the website of PE "Roads of Serbia".

Representatives of local self-government informed the public through local media about the time and place of the public consultation. Publication of the pre-final document of the Environmental Management Plan ended on January 30th 2018. when the public meeting was held in the Municipality of Vrbas.



Photo 1: Public discussion in Vrbas, January 30th 2018



Photo 2: Public discussion in Vrbas, January 30th 2018



Photo 3: Public discussion in Vrbas, January 30th 2018



Photo 4: Public discussion in Vrbas, January 30th 2018

Public discussion in Vrbas was attended by 7 people, from which 6 persons were from municipality of Vrbas, and one person from Srbobran. Representatives of local services for the environment, and representatives for traffic in Vrbas were present.

The meeting was attended by the Panpro Team, represented by Road Designers Miroslav Cupic and Ana Knezevic.

The meeting began as planned at 10:00 AM. A representative of the Panpro Team, environmental specialist Marina Komad, dipl.ing.civil., presented in detail the Environmental Management Plan to the participants. During the public discussion, there were no complaints regarding to the environmental issues.

In the last 10 minutes of the presentation, a representative of the municipal administration Vrbas in charge of traffic had no questions on the subject of EMP documents, but he asked questions concerning the subject road improvement design, which were discussed with the road designers. On that occasion he requested further clarification regarding the terminology of bicycle paths and bicycle lanes, and drainage solutions, as well as the date of the public presentation of the preliminary design solution of the subject road section. The above issues will be discussed during further elaboration of project solutions for the road and drainage, and about the term of public presentation of preliminary design solution all interested will be informed in the municipalities through which the subject road section passes, when design solutions will be presented in more detail.

The public discussion ended at 11:30 PM local time.

APPENDIX 5 CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS



Број: 03-661/2
Датум: 4.04.2017.



ЈП ПУТЕВИ СРБИЈЕ
Булевар краља Александра 282
Поштански фах 17
11059 БЕОГРАД

Покрајински завод за заштиту природе на основу чланова 9., 57. и 102. Закона о заштити природе („Службени гласник РС”, бр. 36/09, 88/10 и 91/10) и члана 192. Закона о општем управном поступку („Службени гласник РС”, 33/97 и 31/01) решавајући по захтеву ЈП „Путеви Србије” у предмету за добијање услова заштите природе за израду техничке документације пројекта Појачаног одржавања пута деонице државног пута 1Б реда бр. 15 (стара ознака М-3), деоница Кула (Бачка Топола) – Врбас (Савино село), доноси следеће

РЕШЕЊЕ

1. Израда техничке документације пројекта Појачаног одржавања пута 1Б реда бр. 15 (стара ознака М-3), деоница Кула (Бачка Топола) – Врбас (Савино село) може се извршити поштујући следеће услове заштите природе:
1. За обнављање коловозног застора, користити материјал који са аспекта заштите треба да обезбеди следеће захтеве: смањење нивоа буке и вибрација, омогућавање ефикасног дренажа воде са површине коловоза, и сл.;
 2. Обезбедити функционалност локалних еколошких коридора, чишћењем зацењених делова или пропуста за воду;
 3. На обалама водотока, где је путни правац са мостом који служи и као прелаз за ситне животиње, потребно је сачувати ниску жбунасту вегетацију која усмерава кретање животиња према прелазу;
 4. Вегетација испред прелаза треба да буде физички повезана са природном вегетацијом околине и отвореног типа (травнатог или нискожбунастог) у централном делу простора, са обе стране моста или пропуста;
 5. Обавити равнање терена после завршетка радова ради смањења могућности ширења корова;
 6. За одлагање чврстог отпада користити контејнере који обезбеђују изолацију отпадних материја од околног простора. Контејнери се морају редовно празнити од стране одговарајуће комуналне службе;
 7. Мазиво и гориво потребно за снабдевање механизације неопходно је транспортовати, депоновати (чувати) и њима руковати поштујући при том мере заштите прописане законском регулативом која се односи на опасне материје;
 8. У случају акцидентног изливања загађујућих материја на простору станишта заштићених и строго заштићених дивљих врста биљака, животиња и гљива или у зони утицаја, загађени слој земљишта мора се хитно отклонити и исти ставити у амбалажу која се може празнити само на, за ту сврху, предвиђеној депонији, изван природних станишта. На место акцидента нанети нови, незагађени слој земљишта. Услове за ревитализацију терестичних и акватичних станишта тражити од овог Завода.

- II Подносилац захтева је дужан да радове и активности изведе у свему у складу са условима из тачке I овог решења.
- III Уколико подносилац захтева у року од две године од дана достављања акта не отпочне радове и активности за које је акт о условима заштите природе издат, дужан је да прибави нови акт. Такође, уколико дође до измена захтевом наведених активности, или промене локације/подручја, носилац активности дужан је да поднесе Покрајинском заводу за заштиту природе нов захтев за издавање акта о условима заштите природе;
- IV Ово решење не ослобађа обавезе подносиоца захтева да прибави и друге услове, дозволе и сагласности предвиђене позитивним прописима;
- V Обрађивач је обавезан да поштује и све друге одредбе заштите животне средине утврђене Законом о заштити природе, другим прописима као и важећим плановима вишег реда.

ОБРАЗЛОЖЕЊЕ

ЈП „Путеви Србије“ из Београда, Булевар краља Александра 282 обратило се Покрајинском заводу за заштиту природе са захтевом бр. 953-5787 од 21.03. 2017. за израду техничке документације пројекта Појачаног одржавања пута IB реда бр. 15 (стара ознака М-3), деоница Кула (Бачка Топола) – Врбас (Савино село). Према Информационој бази Покрајинског завода за заштиту природе у еколошкој мрежи, предметна траса пута пресеца регионални еколошки коридор Велики канал.

Чланом 38. Закона о заштити природе предвиђено је да је успостављањем еколошке мреже омогућено очување станишта дивље флоре и фауне. На основу прилога 3. Уредбе о еколошкој мрежи, на еколошким коридорима који се налазе унутар еколошке мреже, забрањено је, између осталог, промена морфолошких и хидролошких особина подручја од којих зависи функционалност коридора. Према члану 14. наведене Уредбе станишта еколошки значајна подручја су потенцијална НАТУРА 2000 станишта у складу са Директивама ЕУ (Директиве Савета Европе 79/409/ЕЕС о очувању дивљих птица и Директиве Савета Европе 92/43/ЕЕС о очувању природних станишта дивље флоре и фауне)

Чланом 15. **Закона о заштити природе** (у даљем тексту Закон), заштита врста се „осврћује спровођењем мера и активности на очувању самих врста, њихових популација и станишта, екосистема и коридора који их повезују“, а у складу са чланом 16., заштита станишта врши се „спровођењем мера и активности на заштити и очувању природе, одрживом коришћењу природних ресурса и заштићених природних добара, планирањем и уређењем простора.“ На основу чланова 71. и 72., повољно стање дивљих врста обезбеђује се заштитом њихових станишта и заштитним мерама за поједине врсте... а очување дивљих врста и њихових станишта саставни је део мера и услова заштите природе из члана 9. закона...“ Члан 74. **Закона** забрањује угрожавања или уништавања станишта строго заштићених врста, њихово узнемиравање, нарочито у време размножавања, подизања младих, миграције и хибернације, као и пресецање миграторних путева.

Чланом 5., став 7 **Закона** изражено је начело непосредне примене међународних закона којим државни органи и органи аутономне покрајине и органи јединице локалне самоуправе, организације и институције, као и друга правна лица, предузетници и физичка лица, при вршењу својих послова и задатака непосредно примењују општеприхваћена правила међународног права и потврђене међународне уговоре као саставни део правног система.“

У складу са **Конвенцијом о биолошкој разноврсности** (“Сл. лист СРЈ - Међународни уговори”, бр. 11/2001), дужни смо да спречавамо уношење и контролишемо или

искорењујемо „оне стране врсте које угрожавају природне екосистеме, станишта или (аутохтоне) врсте“. На нашим подручјима сматрају се инвазивним следеће **биљне врсте**: циганско перје (*Asclepias syriaca*), јасенолисни јавор (*Acer negundo*), кисело дрво (*Ailanthus glandulosa*), багремац (*Amorpha fruticosa*), западни копривић (*Celtis occidentalis*), дафина (*Eleagnus angustifolia*), пенсилвански длакави јасен (*Fraxinus pennsylvanica*), трновац (*Gledichia triachantos*), жива ограда (*Lycium halimifolium*), петолисни бршљан (*Parthenocissus inserta*), касна сремза (*Prunus serotina*), јапанска фалопа (*Reynouria syn. Fallopia japonica*), багрем (*Robinia pseudoacacia*), сибирски брест (*Ulmus pumila*).

Увидом у достављену документацију и документацију овог Завода донето је решење као у диспозитиву.

Прилог: Карта предметне деонице пута са приказом регионалног еколошког коридора

Такса на захтев и такса за решење, по Тар.бр.1 и Тар. бр.9, су наплаћене у складу са Законом о републичким административним таксама ("Сл. гласник РС", бр. 43/2003, 51/2003 - испр., 61/2005, 101/2005 - др. закон, 5/2009, 54/2009, 50/2011, 70/2011 - усклађени дин. изн., 55/2012 - усклађени дин. изн., 93/2012 и 47/2013 - ускл. дин. изн.)

Поука о правном леку:

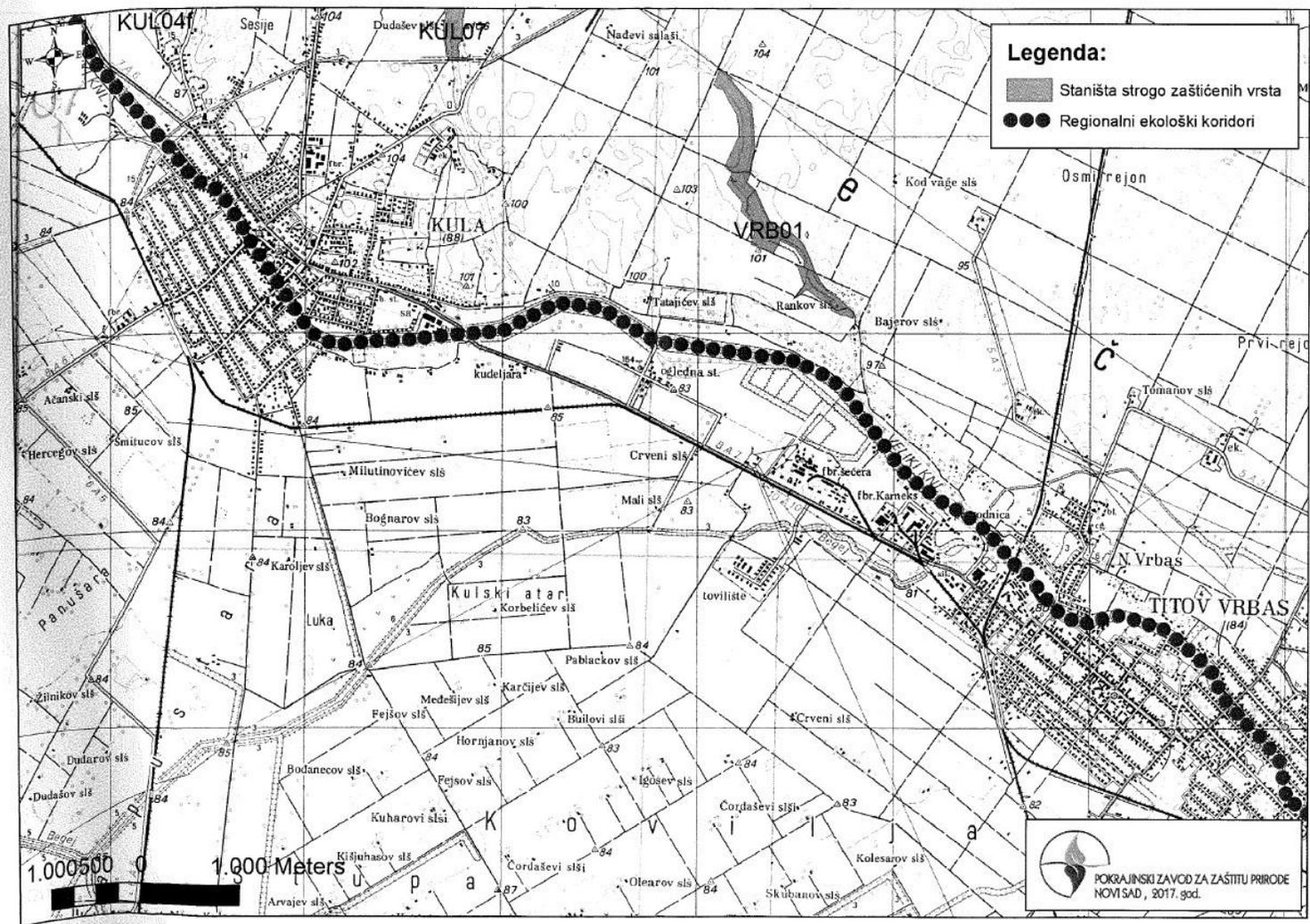
Против овог Решења може се поднети жалба Покрајинском секретаријату за урбанизам, градитељство и заштиту животне средине, а преко Покрајинског завода за заштиту природе, у року од 15 дана од дана достављања овог Решења уз доказ о уплати Републичке административне таксе у износу од 440,00 динара на текући рачун бр. 840-742221843-57, позив на број 59013 по моделу 97.

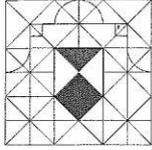
Решено у Покрајинском заводу за заштиту природе, под бројем 03-661/2, дана 4.04.2017. године.



Доставити:

1. Наслову
2. Архиви
3. Документацији





Република Србија
Аутономна покрајина Војводина
**Покрајински завод за
заштиту споменика културе,
Петроварадин**
Установа културе од
националног значаја
Штросмајерова 22, 21131 Петроварадин
Т: 021 431211 факс: 021 64 31 198
office@pzssk.rs, www.pzssk.rs

Republic of Serbia
Autonomous Province of Vojvodina
**The Provincial Institute for the
Protection of Cultural Monuments,
Petrovaradin**
Cultural Institution of
National Significance
Štrosmajerova 22, 21131 Petrovaradin
Т: +381 21 431211 Fax: +381 21 64 31 198
office@pzssk.rs, www.pzssk.rs

Број/ Number: 02-123/2-2017

Датум/ Date: 06.04.2017.

Јавно предузеће "Путеви Србије"
Сектор за инвестиције
Булевар краља Александра 282
11050 Београд

Јавно предузеће "Путеви Србије"
0255-57841074
28-04-2017
Датум: 28-04-2017
Јавно предузеће "Путеви Србије"
Булевар краља Александра бр. 282

Предмет: Услови за израду техничке документације пројекта Појачаног одржавања деонице пута IB реда бр. 15, деоница Кула - Врбас

Захтевом упућеним Покрајинском заводу за заштиту споменика културе, заведеним под бр. 02-123/1-2017 од 21.03.2017. год. обратили сте се за издавање услова за израду техничке документације пројекта Појачаног одржавања деонице државног пута IB реда бр. 15 (стара ознака: магистрални пут М-3), деоница Кула (Бачка Топола) – Врбас (Савино село).

Покрајински завод за заштиту споменика културе Петроварадин,
овим актом утврђује следеће

Услове:

- Уколико се буду изводили земљани радови и ископи на простору регистрованих археолошких локалитета (приказаних на карти у прилогу), неопходно је пре ових радова спровести претходна заштитна археолошка ископавања или спроводити археолошку контролу радова. Заштитна археолошка ископавања и контролу радова обавља Покрајински завод за заштиту споменика културе, према Програму мера заштите, који ће сачинити након добијања Пројекта на увид.

- У случају да се приликом радова на траси пута открију до тада нерегистровани непокретни и покретни археолошки налази, инвеститор је у обавези да заустави радове и предузме мере заштите према посебним условима које ће издати надлежни завод за заштиту споменика културе и омогући стручној служби да обави археолошка истраживања и документовање на површини са откривеним непокретним и покретним културним добрима;

- Инвеститор је дужан да обезбеди средства за археолошки надзор, истраживање, заштиту, чување, публиковање и излагање добара која уживају претходну заштиту у случају вршења земљаних, грађевинских и осталих радова на површинама где се налазе археолошки локалитети и добра под претходном заштитом.

ПИБ102126979,
жиро рачун: 840-115668-93, 840-115664-08
матични број: 8054860; шифра делатности: 9103

TIN102126979,
transfer account: 840-115668-93, 840-115664-08
registration No.: 8054860; business activity code: 9103

Образложење:

Покрајински завод за заштиту споменика културе добио је од Јавног предузећа "Путеви Србије" из Београда, Булевар краља Александра 282, захтев за издавање Услова за израду техничке документације пројекта Појачаног одржавања деонице државног пута IБ реда бр. 15 (стара ознака: магистрални пут М-3), деоница Кула (Бачка Топола) – Врбас (Савино село).

Стручна служба Покрајинског завода је, на основу поднетог Захтева, извршила увид у евиденцију Покрајинског завода о археолошким локалитетима на територији Војводине и обавила теренску проспекцију. На предметној траси пута и у непосредној близини постоји више археолошких локалитета (приказаних на карти у прилогу). С обзиром на наведено, могуће је да приликом евентуалних земљаних радова дође до оштећења археолошких налазишта, па је у том случају неопходно спроводити заштитне археолошке радове.

Овај акт важи годину дана од дана издавања.

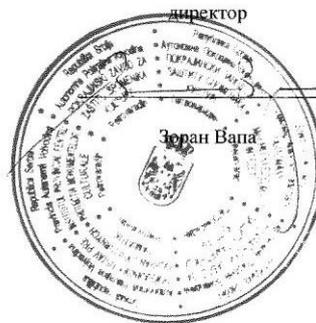
Обрађивач:

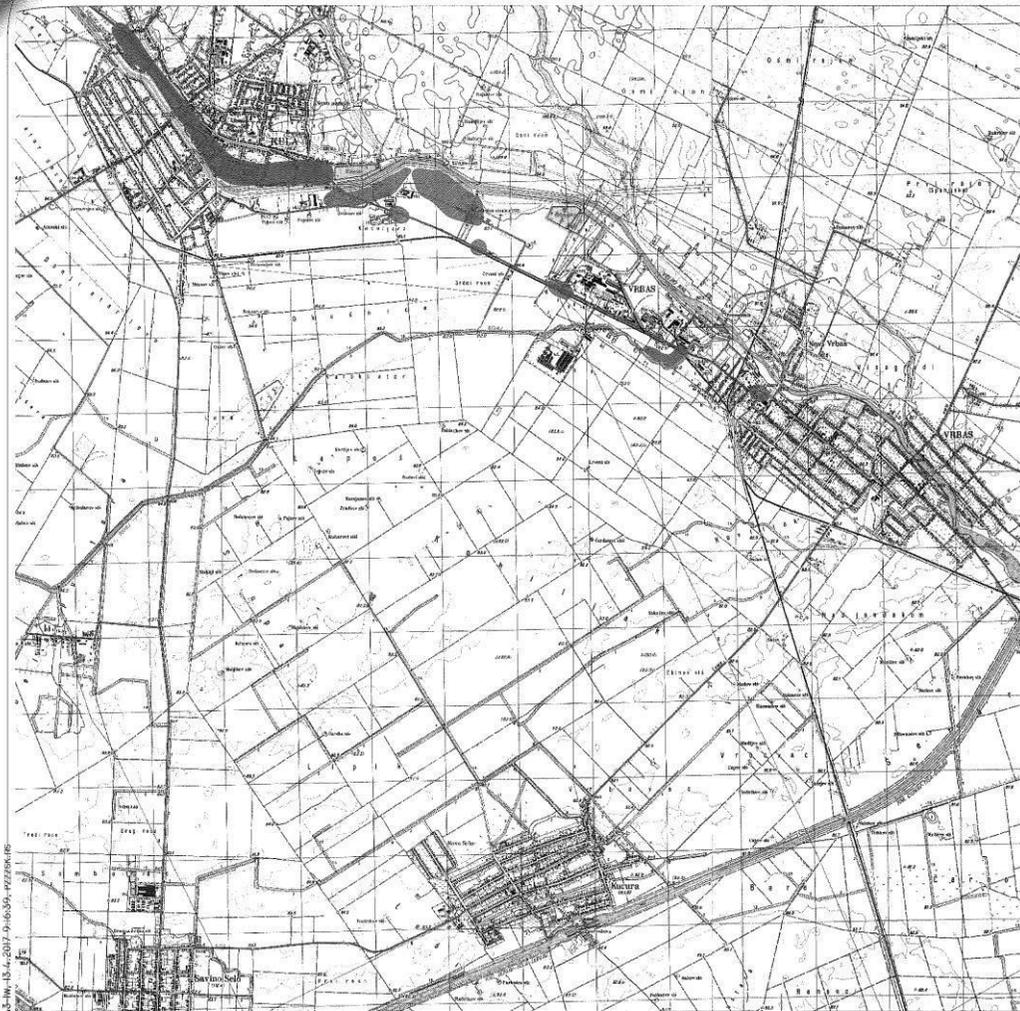
Ивана Пашић, археолог

С поштовањем,

Доставити:

1. Наслову
2. Документацији
3. Архиви





■ Археолошки локалитети

4-111-15.4-2017-9-603A-P02296-05

APPENDIX 6 FINAL ENVIRONMENTAL APPROVAL



Република Србија
Аутономна покрајина Војводина
**Покрајински секретаријат за
урбанизам и заштиту животне средине**

Булевар Михајла Пупина 16, 21000 Нови Сад
Т: +381 21 487 4719 Ф: +381 21 456 238
ekourb@vojvodina.gov.rs | www.ekourb.vojvodina.gov.rs
БРОЈ:140-501-640/2017-05 ДАТУМ: 14. 06. 2017. година

"PROJECT BIRD UTIBER" DOO
Број 10267/17-401
20. 6. 2017 god.
NOVI SAD

ПРОЈЕКТ БИРО УТИБЕР д.о.о.
Војводе Мишића бр. 2
НОВИ САД

Предмет: Захтев за давање мишљења у вези подношења захтева за одлучивање о потреби процене утицаја на животну средину

Покрајинском секретаријату за урбанизам и заштиту животне средине достављен је захтев за давање мишљења да ли је за пројекат појачаног одржавања државног пута 1Б реда бр. 15 Кула (Бачак Топола) – Врбас (Савино Село), дужине 10,156km, неопходна процедура процене утицаја на животну средину, односно подношење захтева за одлучивање о потреби процене утицаја предметног пројекта на животну средину. На основу достављеног захтева може се закључити да предметни пројекат подразумева грађевинско – путарске радове у оквиру трасе постојећег пута.

У вези са достављеним захтевом обавештавамо вас да се процена утицаја врши, на основу члана 4. Закона о процени утицаја на животну средину („Службени гласник РС”, број 135/2004 и 36/2009), за пројекте који су наведени у Уредби о утврђивању Листе пројеката за које је обавезна процена утицаја и Листе пројеката за које се може захтевати процена утицаја на животну средину („Службени гласник РС”, број 114/2008). У Листи I, која садржи пројекте за које је обавезна студија о процени утицаја на животну средину, под тачком 7. подтачка 2) наводи се изградња магистралних аутопутева и путева са четири или више трака, или реконструкција и/или проширење постојећег пута са две траке или мање, са циљем добијања пута са четири или више трака, у случају да такав нови пут или реконструисана и/или проширена деоница имају непрекидну дужину од преко 10km или више, укључујући припадајуће објекте, осим пратећих садржаја магистралног пута, док се у Листи II, која садржи пројекте за које се може захтевати процена утицаја на животну средину, под тачком 12. Подтачка 5) наводе регионални путеви укључујући припадајуће објекте, осим пратећих садржаја пута – сви објекти.

Како ЈП „Путеви Србије“ планира извођење грађевинско – путарских радова у оквиру трасе постојећег пута, односно појачано одржавање државног пута IБ реда бр. 15 Кула (Бача к Топола) – Врбас (Савино Село), дужине 10,156km, према критеријумима наведеним у Уредби, не постоји обавеза вршења процене утицаја на животну средину.



Доставити:
1. Наслову
2. Архиви