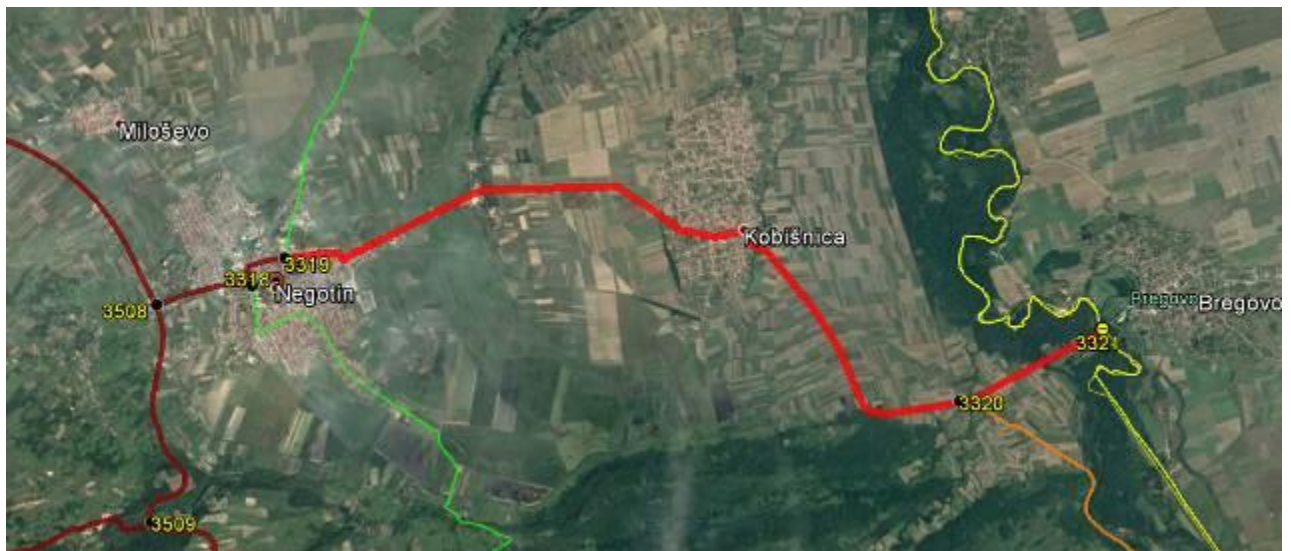


## ENVIRONMENTAL MANAGEMENT PLAN – FINAL

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

PREPARATION OF MAIN DESIGN FOR HEAVY MAINTENANCE (ROAD REHABILITATION - UPGRADING) OF THE STATE ROAD IB 33, SECTION: NEGOTIN (RADUJEVAC) – STATE BORDER SRB/BUG (MOKRANJE), L = 12.919 km

ENVIRONMENT CATEGORY B



March 2019



## Document Information

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| Document Title | Environmental Management Plan   |
| Date           | February 2019   |

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### History correction:

| Version     | Date        | Author   | Approved and signed by        |
|-------------|-------------|--|-------------------------------|
| Draft 1     | 25.09.2018. | Marina Komad, dipl.ing. Civil, Milica Simic, grad. Spatial Planner | Marina Komad, dipl.ing. Civil |
| Draft 2     | 12.11.2018. | Marina Komad, dipl.ing. Civil, Milica Simic, grad. Spatial Planner | Marina Komad, dipl.ing. Civil |
| Draft 3     | 13.12.2018. | Marina Komad, dipl.ing. Civil, Milica Simic, grad. Spatial Planner | Marina Komad, dipl.ing. Civil |
| Final draft | 15.01.2019. | Marina Komad, dipl.ing. Civil, Milica Simic, grad. Spatial Planner | Marina Komad, dipl.ing. Civil |
| Final       | 27.02.2019. | Marina Komad, dipl.ing. Civil, Milica Simic, grad. Spatial Planner | Marina Komad, dipl.ing. Civil |

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## **ABBREVIATIONS AND ACRONYMS**

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

## **INTRODUCTION**

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

The Republic of Serbia plans to invest part of the funds for the project of heavy maintenance (road rehabilitation – upgrading) of the the state road IB 33 section: Negotin (Radujevac) – State border SRB/BUG (Mokranje).

Environmental Management Plan (EMP) relates to the heavy maintenance on the state road IB 33 section: Negotin (Radujevac) – State border SRB/BUG (Mokranje) L=12.919 km. The subject road section belongs to Borski Administrative District located in eastern part of Republic of Serbia. The subject road section belongs to the state road IB 33 (old designation M-24) which represents the part of the traffic connection between State border with Bulgaria (State border "Bregovo") and state road IB 35. Road section starts in Negotin, 30 m before node RS 3319, crosssection with state road IIB 400 (crosssection of streets 12, September and 9. Brigade around km 187+335. The end of the subject road section is around 364 m before node RS 3321 – State border SRB/BUG (Mokrinje) at chainage km 200+254. Border area, section from Police building to custom at the node 3321 is not subject of this design. The total length of the road which is the subject of main design is 12.919 km.

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

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

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

## **EXECUTIVE SUMMARY**

### **Project description**

The subject road section belongs to Borski Administrative District located in eastern part of Republic of Serbia. The subject road section belongs to the state road IB 33 (old designation M-24), and represents link between State border with Bulgaria and state road IB 35. Due to the traffic - geographic nature, the level of development and position in the road network, the subject road is of the most importance for the Republic of Serbia. It is necessary to remedy the damage at the subject road section caused by erosive action of water and winter maintenance, to eliminate the causes of damage to the greatest possible extent, enhance operational value, durability of the road, and road safety.

Terms of reference defined the beginning of the road section 30 m before node 3319 (Negotin (Radujevac)) at approximate chainage km 187+335 and the end of the subject road section is defined 364 m before node 3321, at approximate chainage km 200+254.

On the basis of the currently valid reference system of state roads network of I and II class from November 2017 is established the following:

- Chainage of the node 3319 Negotin (Radujevac) is at km 187+478;
- Chainage of the node 3320 Veljkovo is at km 198+505;
- Chainage of the node 3321 State border SRB/BUG (Mokranje) at km 200+731.

Change in chainage of the nodes means that in accordance with valid reference system of state roads network, the beginning of the subject road section is at km 187+448 and end is at km 200+367.

The beginning of the road section is 30 m before node 3319 (Negotin (Radujevac)), viewed in the direction of the chainage increase (at approximate chainage km 187+335). The node 3319 is located at the crosssection of the street IX brigade and 12. September. The end of subject road section is located 364 m before node 3321, at approximate chainage km 200+254.



*Figure 1. The beginning of the road section – node 3319*

## **Policy, legal and administrative framework**

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

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

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

PE „Roads of Serbia” (PERS) submitted a request to the Institute for Nature Conservation of Serbia (INCS) in order to acquire the conditions under which the proposed design should be implemented. Acting on the request by PERS, the INCS issued a statement on conditions for nature protection 03 no. 020-2163/3 dated 18 October 2017 and modification of condition 03 no. 020-1549/2 dated 28 June 2018.

PERS submitted a request to the Institute for Protection of Cultural Monuments Nis (IPCMN) in order to acquire the conditions under which the proposed design should be implemented. Acting on the request by PERS, IPCMN issued a statement on conditions for protection of cultural monuments no. 1106/2 dated 15 September 2017.

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

**Final Environmental Approval is obtained from the Ministry of Environmental Protection (MoEP) (No. 011-00-00188/2018-03 dated 12 March 2018), stating that the Client is not obliged to conduct EIA procedure for this project. (Appendix 6)**

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

In accordance with a statement issued by the INCS, the subject road section is not located within a protected area for which a procedure for protection was carried out or initiated or in the ecological network area. The Client is requested to provide, through design proposal the functionality of the ecological corridors.

In the Conditions of the IPCMN is written that along subject road section there was no systematic prospecting of immovable cultural property. The Client is obliged to provide permanent archaeological supervision during the execution of earthworks. In the event that during the excavation work an unrecorded archaeological or historical site is discovered, the Client is obliged to immediately stop the works and inform IPCMN without delay, to take measures to ensure that the finding is not destroyed and not damaged in the place and in the position in which it is discovered, and to provide conditions for

archaeological research, conservation and presentation of the same. The Client is obliged to provide funds for research, protection, preservation, publication and presentation of the same.

IFIs request that the design 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 Borski Administrative District located in eastern part of Republic of Serbia. Road section Negotin (Radujevac) – State border SRB/BUG (Mokranje) belongs to state road IB 33 (old road designation M-24) (Official Gazette of RS, No. 93/2015).

The subject road section passes through the municipality Negotin.

Type of work which is planned mainly comprises work to reinforce the existing pavement, within the existing pavement dimensions and with existing and rehabilitated drainage system, including the design of all the elements which improve the durability of the works and improve traffic safety system, and is completely governed by the provisions of the Law on Roads (Official Gazette of RS, No. 41/18).

The initial part of the route, from the intersection with the state road IIB-400 up to crossing over the railway line at ~km 188+670, is a typical urban road. In this road section, works will be carried out on the carriageway and the partial arrangement of pedestrian paths and parking for cars along the road. For draining of road surfaces on this part of road, an existing concrete channel will be used in the channel in the street 12. September (Figure 2. and 3.), which extends along the road, and on the opposite side of the road storm sewer will be constructed (Figure 4.). The above-mentioned concrete channel transition into piped at ~km 187+800 (Figure 5.), while it gradually moves away from the subject road section and continues behind the train station.





*Figure 2. Negotin - open canal*



*Figure 3. Negotin - open canal*



*Figure 4. Negotin – part of the road across the concrete canal*



*Figure 5. Negotin – transition in piped part of the canal  
(The location where open canal transits in piped canal)*

**Crossing no. 1 with “Concrete canal” in Negotin at km 188+405.92**

At chainage km 188+405.92 in Negotin, at subject road section, crosssection with mentioned concrete channel is repeated (Figure 6.). At this place is located concrete culvert. Afterwards road moves away from concrete channel.



*Figure 6. Negotin – crossing with concrete canal*

### **Crossing no. 2 with “Kanal Vodne Zajednice” at km 190+106.43**

At km 190+106.43 km in the outer city area, there is a crossing with a channel called "Kanal Vodne Zajednice" (Figure 7. and 8.). Through road canal, the water will be by gravity pour into said recipient, according to the designed falls depending on the existing topography. Dimensions of road canal will be tested and adjusted during the design from the viewpoint of the proper amount of water.

At that location there is culvert that intersects with the road at an angle of 90°. The mentioned culvert is tubular, diameter  $\phi 1000$ . The surrounding terrain is neglected and overgrown with grass and shrubs, disorganized and eroded in some places. Rehabilitation of this culvert and the surrounding terrain is required by this design.



*Figure 7. Culvert  $\phi 1000$  at km 190+106.43*



*Figure 8. Culvert  $\phi 1000$  at  
km 190+106.43*

### **Crossing no. 3 with “Jasenicka River” at km 194+545**

Next crossing of watercourse with the road is located at km 194+545 at the exit from the settlement Kobisnica, where the recipient is a canal- tributary called "Jasenicka River". At the crossing with the watercourse there is a truss bridge (Figure 9.). In the area of the bridge, the road alignment is straight. Bridge is crossing the Jasenicka River at an angle of 90°. The carriageway is with double-sided cross fall.



*Figure 9. The bridge over Jasenicka River*

Road section through municipality Kobisnica from ~km 193+200 to ~km 194+500 is with densely constructed buildings along the road edges and without fully landscaped road area. For this location of the subject road section, works that are required by the design are pavement upgrading, landscaping (walkways rehabilitation) and construction of the atmospheric sewer that does not exist (Figure 10.). The designer will use all available details relating to the existing infrastructure installation for designing storm sewer. As a recipient of storm sewer is planned canal "Jasenicka River".



*Figure 10. Municipality Kobisnica*

#### **Crossing no. 4 with “Canal - tributary Jasenicka River” at km 194+719.94**

Near the Jasenicka River, ~200 m away, there is a canal that flows into the Jasenicka River at chainage km 194+545. At the intersection of mentioned canal tribute of Jasenicka River with a subject road section at km 194+719.94 is arched culvert (Figure 11.).

The culvert is massive stone structures. The bridge structure consists of a stone arch structure width of 3.00 m with parallel stone wings. The abutments are unregulated, overgrown with vegetation. The terrain in the area of the abutments is the earthen embankment that is neglected and overgrown but in a good shape and stable. The bed of the river is not regulated and unorganized. There are no gullies on the bridge so that

rainwater drains from the roadway by longitudinal (vertical curvature) and the cross fall of the carriageway.

After crossing with the mentioned canal, the mentioned canal extends along the existing road - parallel to it and from km 194+719.94 to ~km 194+880.



*Figure 11. Culvert over Canal of tribute to Jasenicka River*

#### **Crossing no. 5 with canal - "Drain barrier" at km 198+513.07**

Near Sikolska River, ~150 m away, there is a crossing over the canal which inhabitants named "Drain barrier" at the chainage km 198+513.07 (Figure 12.).

The abutments are unregulated, overgrown with vegetation. The terrain in the area of the abutments is earthen embankment that is neglected and overgrown, but a good shape and stable.

The bed of the river is unregulated and unorganized.

No utilities on the bridge were observed. There are no gullies on the bridge so that rainwater drains from the roadway by longitudinal and the cross falls of the carriageway.

Through road canal, the water will be by gravity pour into said recipient, according to the designed falls depending on the existing topography. Dimensions of road canal will be tested and adjusted during the design from the viewpoint of the proper amount of water.



*Figure 12. Structure over canal "Drain barrier"*

**Crossing no. 6 with watercourse "Sikolska River" at km 198+675.01**

At chainage km 198+675.01 road crosses over as a previous comment "Sikolska River" on the bridge (Figure 13.).

The abutments in obtuse angles of the bridge are unregulated, overgrown with vegetation. In the sharp corners of the bridge, shield of the abutments slide, with overgrown vegetation, and in the lower part there is sand that has leaked beneath the transition plate. The bed of the river is unregulated and unorganized. On the approaches to the bridge, in the area of the wing walls, the larger settlements of gravel wedges are spotted, and it is assumed that the bridge does not have a sufficient length of the transition panel.

The topography of the terrain (gradients), is such that it does not allow the gravitational drainage of large areas in Sikolska River, so it will not be used as a recipient.



*Figure 13. The bridge over Sikolska River*

The works which are planned for bridges are repairment of damaged concrete surfaces, repair of corroded reinforcement, installation of guardrails, making joints and waterproofing, arranging of abutments. Also, regulation of watercourses is required in the area of the bridge over the Jasenicka River and Sikolska River.

The works which are planned on the culverts are: surface treatment of concrete walls, walkways and culvert roof plate with possible expansion to the newly designed roadway width and production/rehabilitation of the fence.

In addition to these six crossings over existing watercourses on the subject road section there are 13 culverts, whose role is to ensure the migration of water from one side of the road to another. At the same time, there is no clearly defined recipient of this water, so it remains on the surface uncontrollably, generally flooding the agricultural land (Figure 14.). The construction of road canals within the road area, and in accordance with the configuration of the field, and where possible, will be carried out to connect water that flows out of the culvert with the corresponding existing recipients. In places where this is not possible, shall provide for the absorbent road canals.



*Figure 14. Uncontrolled water accumulation*

The possibilities of existing culverts rehabilitation will be evaluated, but also justification for increasing the number of culverts on critical road sections will be considered depending on the topography of the terrain.

In the conditions of PE "Srbija Vode" is defined that conditionally clean atmospheric waters, which correspond to class II water, can be used without purification, through arranged discharge released into the canal, ameliorative canals streams, and other water courses, whereas the quality of the water defined by the Regulation on limit values for emissions of pollutants in water and deadlines for their achievement (Official Gazette of RS, Nos. 67/11, 48/12 and 1/16).

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 RS, No. 5/68) and in accordance with the limit values for the emission of pollutants in water and deadlines for their achievement (Official Gazette of RS, Nos. 67/11, 48/12 and 1/16). Surfaces from which oiled atmospheric water is collected must be waterproof.

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

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

Road section 03322 Negotin (Radujevac) – Veljkovo L=11.027 km (from traffic node 3319 to traffic node 3320)

**Table 1:** Calculated Average Annual Daily Traffic for 2018. on the section 03322

| PC <sup>1</sup> | BUS   | LT <sup>2</sup> | MT <sup>3</sup> | HT <sup>4</sup> | TT <sup>5</sup> | AADT <sup>6</sup> |
|-----------------|-------|-----------------|-----------------|-----------------|-----------------|-------------------|
| 2162            | 13    | 25              | 18              | 15              | 5               | 2238              |
| 96.60%          | 0.57% | 1.13%           | 0.81%           | 0.65%           | 0.24%           | 100%              |

Road section 03323 Veljkovo – State border SRB/BUG (Mokranje), L=2.226 km (from traffic node 3320 to traffic node 3321)

**Table2:** Calculated Average Annual Daily Traffic for 2018. on the section 03323

| PC     | BUS   | LT    | MT    | HT    | TT    | AADT |
|--------|-------|-------|-------|-------|-------|------|
| 122    | 2     | 4     | 4     | 8     | 8     | 147  |
| 82.89% | 1.07% | 2.67% | 2.67% | 5.35% | 5.35% | 100% |

## TRAFFIC FORECAST

Based on calculated AADT and traffic increase rate for moderate scenario, the application of which is defined in terms of reference, traffic forecast for planned period of 10 years is calculated for both traffic sections.

Total number of traffic connection at subject road section Negotin (Radujevac) – Negotin (Veljkovo) – State border SRB-BUG (Mokranje) is 271.

<sup>1</sup> PC- Passenger car

<sup>2</sup> LT-Light truck

<sup>3</sup> MT- Medium truck

<sup>4</sup> HT- Heavy truck

<sup>5</sup> TT- Truck Train

<sup>6</sup> AADT- Average Annual Daily Traffic



## **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 to access roads, dust and gas emissions and temporary disturbance of residents in the neighbouring 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 expected. The vehicle speed after the upgrading will not increase.

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

Impact on the quality of water in the rivers: Timok, Jasenovacka, Sikolska and their tributaries and Kanal Vodne Zajednice are expected to be minimal or negligible, since the expected amount of water drained from the carriageway is small.

During the course of the works, wastewater may negatively affect the quality of ground and surface water. Because of this, appropriate mitigation measures and a monitoring plan have been provided. During the road operational phase, only environmental accidents may lead to water pollution, in which case the relevant procedures (setting out actions to be conducted in accident situations), defined by Ministry of the Interior and in accordance with the Law on Water (Official Gazette of RS, Nos. 30/10, 93/12 and 101/16), are applied. 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 was 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 was presented to public, all the questions were collected, and the conclusions are presented in the report from public presentation, which are included in this document.

### **1. PROJECT DESCRIPTION**

The subject road section is mostly in the terrain level. There are no drainage canals in the most of the subject road section.

Typical cross-section of existing road consists of two lanes in total width from 5 to 7.2 m.

At the beginning of the subject section of the state road IB 33, section Negotin – Mokranje, in municipality Negotin, in the street 12. September, drainage is solved using concrete canals with trapezoidal shape (along the road), but canals are in good conditions. There are some areas where overgrown is observed.

On the opposite side of the road, storm water drainage system consists of concrete kerbs along the carriage edge, but gullies are only in some connected streets. This leads to accumulation of water on mentioned side of the road whereby it is disabled to be transported to a concrete canal.

In the vicinity of the railway station Negotin (chainages km 187+801.67), mentioned concrete canal is transformed into a piped one, where it gradually moves away from the road section and continues behind the train station. At chainage km 188+405.92 of the subject road section again comes to crossing with a concrete canal. At mentioned place there is a concrete culvert which is in good condition.

Drainage system in the village Kobisnica is mostly open, with discontinuous and improvised channels. There is no storm sewer, but in certain parts the water accumulates.

Recipient of water drained from the field, at the exit from the municipality Kobisnica, is Jasenicka River, which passes through the bridge at km 194+544. The river is completely overgrown with vegetation and covered with backwater.

In Negotin, at one part of the road section there are defined footpaths. In a populated area Kobisnica footpaths do not exist.

New designed geometrical profile consists of:

- two traffic lanes  $t_v = 3.00$  m
- two marginal strips  $t_i = 0.25$  m
- shoulders  $b = \text{min } 1.25$  m.

Pedestrian paths will be projected on the left and right side of the subject section.

The pedestrian paths on the right side of the subject section are:

- from the beginning of the subject section to km 187+480, width 2.3 m,
- from km 187+480 to km 187+624, width 2.75 m,
- from km 187+624 to km 187+707, variable width from 1.5 m up to 3.00 m,
- from km 187+707 to km 187+900, width 2.75 m.

The pedestrian paths on the left side of the subject road are:

- from the beginning of the subject section to km 187+480, width 2.3 m,
- from km 187+480 to km 187+670, the existing pedestrian path is located outside the subject section and is not processed by the project,
- from km 187+670 up to km 187+870, width 2.5 m,
- from km 188+150 to km 188+249, width 2.5 m,
- from km 188+249 to km 188+300, variable width,
- from km 188+320 to km 188+400, width 2.5 m.

On the location where road is associated with cemetery it is necessary to relocate part of the road transitory to the left in the direction of chainage growth and therefore will be designed a new intersection for Bukovce.

In municipality Kobisnica two new bus stations are proposed with separated area for taxi.

Shoulders are of topsoil, width from ~0.5 m to 1.5 m.

## **Location Description**

The subject road section belongs to Borski Administrative District located in in eastern part of Republic of Serbia. Road section Negotin (Radujevac) – State border SRB/BUG (Mokranje) belongs to state road IB 33 (old road designation M-24) (Official Gazette of RS, No. 93/2015), which represents the part of the traffic connection between State border with Bulgaria (State border “Bregovo”) and state road IB 35.

Subject road section passes through municipality Negotin.

The road section starts in Negotin, 30 m before node RS 3319, crossection with state road IIB 400 (crossection of streets 12. September and 9. Brigade around km 187+335. The end of the subject road section is around 364 m before node RS 3321 – State border SRB/BUG (Mokrinje) at chainage km 200+254. Border area, section from Police building to custom at the node 3321 is not subject of this design.



Figure 15. Location of road section

### Rehabilitation works description

The project envisages the roadway width of 6.5 m. In addition to the aforementioned, design documentation proposes the rehabilitation of existing structures, culverts and bridges.

On the location where road is associated with cemetery it is necessary to relocate part of the road transitory to the left in the direction of chainage growth and therefore will be designed a new intersection for Bukovce.

It is designed improvement of the existing drainage system, in municipality Kobisnica is envisaged construction of storm sewer.

Sidewalks in the current condition exist in one part of Negotin. In one part of the route in Negotin is designed combined pedestrians and cyclists path in width of 2.5 m (in the area where space restrictions allow that). In part of the route, where there is no possibility for the combined path, pedestrian paths will be designed. Pedestrian path has no uniform width due to space limitations.

In the municipality Kobisnica there are no pedestrian paths in existing condition. In the designed proposal pedestrian path is required. Pedestrian path has no uniform width due to space limitations.

In the existing condition only one bus station is marked with traffic signalization (with sign), without road widening, in the municipality Kobisnica (Figures 16. and 17.).



*Figures 16. and 17. Bus station at ~km 194+230*

On the subject road section there are the following defects, including:

- longitudinal cracks
- transverse cracks
- cracks in the grid
- potholes
- repairs
- deformations
- rutting
- refracting edge of the pavement
- pulling aggregate
- bitumen drains.

The general aim of making the subject technical documents is rehabilitation of all damages by the elimination of the cause that led to a damage, which increases the use value and the durability of the road and improve the traffic safety.

The designed drainage system is preconditioned by the terrain characteristics, spatial and urban constraints and other requirements dictated by the local government.

Note: The opinion of PE "Srbija Vode" is not obtained, the procedure of obtaining the same is in progress.

Along the subject section of the national road differs some typical standard solutions of drainage systems, as follows:

- Newly designed drainage system in urban areas - with draining rainwater from pavement through longitudinal and transverse slope toward drains, manholes and collectors. Newly designed drainage systems collected rainwater from pavement to the nearest recipient.

This system is designed:

- From ~km 187+487 to ~km 188+630. Necessity of application of such a system in this section is the result of the very bad conditions of drainage at subject road section (on the side of the road opposite to a concrete canal). Drainage consist of concrete curbs along the edge of the carriageway, wherein just in certain side-streets are located drains storm sewer. This leads to accumulation of water on said side of the road whereby it is disabled to be transported to a concrete canal on the opposite side of the road. In places where there is existing concrete canal, it is planned to be a one-sided slope of carriageway, so the correct positioning of the gutters and curbs will lead water

to concrete canal. In places where there is no concrete canal, the water will be implemented in the same concrete canal through drains, sewer manholes, and without treatment, at km 188+405.92.

- From ~km 193+117 to ~km 194+545. Necessity of application of such a system in this section is the result of the bad conditions of drainage at subject road section, because there is no sewer system in municipality Kobisnica. Drainage system in the Kobisnica is mostly open, with discontinuous and improvised channels. There is no storm sewer, but in certain parts the water accumulates.
- Newly designed “open” drainage system - with draining rainwater from pavement through longitudinal and transverse slope over shoulders and road embankment slopes in self absorbent ditches in which water is absorbed in soil or evaporate. Depending on the area coverage and topography, road ditches will flow into the existing recipients, and for that purpose existing culverts, which will be repaired, will be used.

This system is designed:

- From ~km 188+670 to ~km 192+150. From the railway crossing to the cemetery, before entrance in municipality Kobisnica, road alignment has suburban character and is existing on low embankment or in the terrain level. In this part of the road section design required upgrading of the pavement, shoulders and slopes, as well as existing ditches, but also digging canals where needed and road area allowed. At the road area where it is cemetery along the road (at the entrance in Kobisnica), road alignment will be relocated translatory to the left in the direction of chainage growth, and therefore designed drainage ditches will follow relocated road.
- From ~km 194+545 to state border SRB/BUG, road section is suburban character, and is existing on low embankment or in the terrain level. In this part of the road section design required upgrading of the pavement, shoulders and slopes, as well as existing ditches, but also digging canals where needed and road area allowed.

## **2. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK**

### **Relevant Institutions**

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

### **Existing Serbian legislation**

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

### **EIA procedure in the Republic of Serbia**

According to the Serbian Law on EIA (Official Gazette of RS, Nos. 135/04, 36/09) full EIA procedure, including preparation of EIA Study are not necessary for road rehabilitation projects, except when there are protected natural or cultural properties nearby. In such

cases the Project Proponent shall submit a Request for Decision about Need for Environmental Impact Assessment to the MoEP. The Law on Environmental Impact Assessment regulates the EIA procedure and is in accordance with European Directive EIA - 85/337/EEC.

In the statement 03 no. 020-2163/3 dated 18 October 2017 and modification of conditions 03 no. 020-1459/2 dated 28 June 2018 Institute for Nature Conservation of Serbia (INCS) issued conditions for the subject road section. By reviewing the Central Register of Protected Goods and documentation of the INCS, and in accordance with the legislation governing the field of nature protection, it concluded that the subject area is not situated within a protected area. Since the works are planned only in the existing road area, planned works do not endanger nearby area of ecological corridor.

In the statement no. 1106/2 dated 15 September 2017 the Institute for Protection of Cultural Monuments Nis (IPCMN) issued technical protection measures needed for development of project technical documentation. It states that there was no systematic prospecting of immovable cultural property and that it is necessary to notify Institute when the works are about to begin, as well as obligations of the Contractor/Investor during the project implementation.

**Final Environmental Approval is obtained from the Ministry of Environmental Protection (MoEP) (No. 011-00-00188/2018-03 dated 12 March 2018) stating that Project Carrier (PERS) is not obliged to conduct EIA procedure for this project** (see Appendix 6). Consequently, that there is no need for producing the Environmental Impact Study of the subject section of the state road.

### **Relevant IFIs Policies and Statements**

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

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

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

### **3. BASELINE CONDITIONS ASSESSED DURING ROUTE SURVEY**

The subject road section Negotin (Radujevac) – State border SRB/BUG (Mokranje) belongs to Borski Administrative District located in eastern part of Republic of Serbia, to the City of Nis and Municipality Negotin.

There is no protected natural property in the vicinity of the subject road section. Along the subject road section there was no systematic prospecting of immovable cultural property. Conclusion is that the subject area is not within the neutrally protected area, nor it is in the environment of the ecological network. Works which are proposed with this design will be

conducted only in the existing road area and completely in accordance with Statement 03 no. 020-2163/3 dated 18 November 2017 and modification of conditions 03 no. 020-1459/2 dated 28 June 2018 issued by INCS.

The existing drainage system on subject road section is characteristic open system for drainage of rain water from the carriageway roads by means of longitudinal and transverse inclination over shoulders and 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.

This is the case everywhere except in settlements Negotin and Kobisnica, where in the system is also "open" type as previously mentioned, and it is concrete channel in Negotin along the subject road section, and an improvised discontinuous concrete canal in Kobisnica.

In terms of the requirements of the MoEP, the project of heavy maintenance, rehabilitation and elimination of road damage is not included in the List of projects for which an impact assessment is required and the List of projects for which an environmental impact assessment can be required, and accordingly there is no obligation entering into the impact assessment procedure, in accordance with the Law on Environmental Impact Assessment.

In accordance with a statement issued by the INCS, the subject road section is not located within a protected area for which a procedure for protection was carried out or initiated, nor in the coverage of the ecological network.

Under the same conditions issued by INCS as for water flow from the pavement surface if loaded with oil and other petroleum products, it is necessary to provide precipitators and separators of fats and oils, if the Environmental Management Plan determines/estimates that average annual daily traffic will adversely affect the quality of the rivers: Jasenicka, Sikolska River and Timok.

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

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



Along the mentioned section there are no industrial facilities that would lead to a cumulative effect on the environment, and also designer didn't defined any dumps (landfill).

Along the road there are two railway crossings at chainages ~km 188+670 and ~km 194+895.93.

In the subject road section there is a large number of connections with municipal roads and local streets, as well as many individual approaches to private buildings and plots, a total of 271 locations.

There are no protected natural areas along the subject road section that could be influenced by the works on heavy maintenance, and also there protected cultural areas are not explored. There will be no new land acquisition, as defined by OP 4.12. since the road widening will be done on public land (in the road area).

## **Settlements**

### **The Municipality of Negotin**

Existign road section belongs to road network of remote areas and interstate roads which connect traffic of Republic Serbia with territory of Bulgaria.

At the beginning of the subject road section, state road IB 33 passes through the urban city area. On the right side of the road, in the direction of chainage growth, there is a residential subdivision - residential zone high and medium density, and on the left side there is zone of medium density. On both sides of the state road, there are public facilities (railway station, two bus stations placed one against the other and more commercial buildings). From the beginning of the road section, at km 187+448 to the ~km 187+950 horizontal geometry elements are corresponding to the design speed  $V_r = 50$  km/h and carriageway width on this section is min 6.5 m (this section runs through the city and, on the basis of the Law on Traffic Safety, speed is limited to 50 km/h). The elements of the vertical geometry corresponds to a calculation speed of  $V_r = 50$  km/h.

The beginning of subject road section is in node 3319 Negotin (Radujevac), it is intersection of state road with street IX Brigade. Street intersects state road almost perpendicular. On the state road at the existing intersection, there is no left turn lane toward Radujevac, so column of vehicles is formed on the road, especially when ramp is down at railway crossing on Radujevacki road. In the town of Negotin there are a number of local street connections and individual approach to private buildings.

Municipality Negotin consists of thirty-nine settlements: Aleksandrovac, Brasevac, Brestovac, Bukovace, Veljkovo, Vidrovac, Vratna, Dupljane, Dusanovac, Jabukovac, Jasenica, Karbulovo, Kobisnica, Kovilovo, Mala Kamenica, Milajnica, Milosevo, Mihajlovac, Mokrinje, Negotin, Plavna, Popovica, Prahovo, Radujevac, Rajac, Crnomasnica, Cubura, Sarkamen and Stubik and forty-two cadastral municipalities. The section is located through Negotin, Radujevac, Veljkovo, Mokrinje and Kobisnica. The territory of the Municipality Negotin has a total area of 1,089 km<sup>2</sup>, which is 1.9% of the total area of the territory of the Republic of Serbia and is placed seventh in the area of expansion.

According to the last census (2011), there are 37,056 inhabitants in the Municipality Negotin in 39 settlements. The Municipality Negotin has an average population density of 34 inhabitants per 1km<sup>2</sup>.

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

The Municipality of Negotin with its neighbouring municipalities and the wider environment realizes the connections by the network of state roads I and II category, the railway and the waterway.

### **Bicycle traffic**

Bicycle lines in the existing situation does not exist. With the newly designed state of the part of the road section in Negotin will be required combined pedestrians and cyclists line in width of 2.5 m (in the area where space restrictions allow that).

Through the municipality Negotin passes international cycling transversal Euro Velo 6 (path leads along the main road through the Djerdap to Negotin, and continues to Bulgaria at the border crossing Bregovo). The existing bike path Euro Velo 6 goes from Negotin to the Bulgarian border. It isn't the same route as the national road and includes in the state road on the node 3320 Veljkovo. From node 3320 to the border with the Republic of Bulgaria bicycle path has the same route as the present national road.

### **Railway traffic**

Main train station in Negotin is located parallel to state road IB 33 from chainage ~km 187+500 to ~km 188+070. Train station is located left to road and it is about 50m far. At km 188+670 roads intersects with railway Crveni krst – Zajecar – Prahovo. Pavement structure is completely reconstructed in March 2008, it is built with rubber decking. At railway crossing there is need to level road in accordance with rubber decking at the right side of the railway.

Railway crossing is located in connection of two horizontal curves in opposite direction ( $R_1 = 20$  m и  $R_2 = 18$  m). Before railway there is connection of local road to state road on the left, and after railway crossing, there is connection at right side (Figure 18.). Vertical geometry elements corresponds to a calculation speed of  $V_r = 50$  km/h.



*Figure 18. Reconstructed railway crossing at km 188+670*

At km 194+896 road intersects in the level with railway Crveni Krst – Zajecar – Prahovo. The pavement is made of stone rocks (Figure 19.).



*Figure 19. Railway crossing at km 194+896*

Railway crossing is located in connection of two horizontal curves in opposite direction ( $R1 = 20 \text{ m}$  и  $R2 = 18 \text{ m}$ ). Before railway there is connection of local road to state road on the left, and after railway crossing, there is connection at right side.

In the area of the railway crossing, from ~km 194+840 to ~km 194+941 state road is in the plot of Railways of Serbia.

From the bridge over Drain barrier, state road intersects delivering with Sikolska at ~km 198+675 and at ~km 198+773 with railway Crveni Krst – Zajecar – Prahovo.

## **Watercourses**

Subject road section Negotin (Radujevac) – State border SRB/BUG (Mokranje) passes and intersects following rivers:

### *Timok*

Timok is a river in eastern Serbia, in length of 88 km, it is right and the last tribute of Danube. It is inlet in Danube 10 km eastern of Negotin, at 30 m high above the sea level, and that is lowest level in Serbia. At that part, Timok is nature border to Bulgaria in length of 15.5 km.

### *Jasenicka River*

Jasenicka River is right tribute of Dunav in length 55 km. River sources in eastern mountainsides of Deli Jovan in eastern Serbia. It runs through rarely populated areas, in Negotin comes from the village of Jasenice and Karbulovo, river forms arc to the north, then back again to the south passes through the municipality of Negotin, the regional centre of Negotin region. Jasenicka River passes to the east, passing through the village Kobisnica (Figure 9.), passing the village of Bukovac and flows into the Danube 1.5km north of the mouth of the Timok River.

### *Sikolovska River*

Sikolska River sources at Bele Vode, under mountain Deli Jovan and passes through vilages Sikole, Metris, Recka and Mokrinje. Length of the river is 10 km. Sikolska River close to Mokrinje is at level 181.05 and the highest water level is 280 and lowest is 66.

Earlier in this text, in the paragraph Baseline conditions assessed during route survey, places of road crossings with those rivers are explained in details.

## **Air**

There are no significant additional sources of air pollution within the planned road section Negotin (Radujevac) – State border SRB/BUG (Mokranje). 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.

| <b>INFLUENCE</b>  | <b>SIGNIFICANCE</b> | <b>COMMENT</b>  |
|---|---------------------|---|
| 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)           | Without impact      | Under the terms of the Institute for Nature Conservation of Serbia  |
| Monuments   | low                 | Under the terms of the Institute for Protection of Cultural Monuments of Nis there was no systematic prospecting of immovable cultural property |
| Noise   | low                 | Temporary impact  |
| Access/crossing points of the main road and local roads | low                 | The rehabilitation and widening works will not affect significantly existing crossing points  |
| Soil management   | low                 | With the application of appropriate measures of waste management  |
| Waste   | low                 | Ensured through environmental management – waste and wastewater management plan will be prepared and implemented                                |
| Cumulative impacts                                      | low                 | 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 Negotin (Radujevac) – State border SRB/BUG (Mokranje). 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 to 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 sulphur 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, 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 into a landfill, outside the site zone (Proposal for the use of an authorized landfill according to the Waste Management Plan in the territory of the Municipality of Negotin and the Waste Management Strategy for the period 2010-2019 (Official Gazette of RS, No. 29/2010), the construction of a regional landfill "Halovo 2" is planned, which will be done according to European standards and legislation of the Republic of Serbia, or proposal for an authorized landfill is any other sanitary landfill according to European standards and legislation of the Republic of Serbia).

## **5. ENVIRONMENTAL MANAGEMENT PLAN**

Environmental impacts of the project for heavy maintenance (road rehabilitation-upgrading) the road section Negotin (Radujevac) – State border SRB/BUG (Mokranje) will

be insignificant and reversible. Mitigation measures provided in the EMP, relating to the design, construction and operational phase, must be carried out appropriately. EMP consists of the Mitigation Plan and Monitoring Plan and is based on the types of environmental impact, their scope and duration. PERS manages the design, supervision and the Contractor in the implementation of EMP.

## **A. MITIGATION PLAN**

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

### **Site Organization Plan**

Contractor shall carry out and follow the Site Organization Plan. Conditions issued by INCS 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 coastal part of the rivers: Timok, Jasenicka, Sikolska River and their tributaries and Kanal Vodne Zajednice shall be prohibited, as well as at the unorganized local waste dumps;
- ❖ After the completion of the works, all areas that have been degraded in any way by road rehabilitation works must be rehabilitated as soon as possible;
- ❖ During the works, the planned road sections and corridors around it must be followed, so that the earthworks and machinery do not affect the surrounding areas. Also, the existing road network must be used, without building new roads, to prevent habitat fragmentation;
- ❖ During the road works directly along the rivers: Timok, Jasenicka, Sikolska River and their tributaries and Kanal Vodne Zajednice, river bed, and river bank and must be preserved as much as possible;
- ❖ Vehicle and machinery servicing on the road section shall be prohibited. In the event of a road traffic accident resulting in oil or service fluids spillage, the road area must be cleaned and reinstated;
- ❖ On the parts where the section is located in a populated area the works must be performed only during the day, to minimize the impact of noise on local residents;
- ❖ Guardrails and pedestrian crossings must be placed where necessary;
- ❖ Locations for containers for temporary tipping of communal waste produced during the works must be determined;

- ❖ The area for Contractor's facilities must be of the smallest possible size, to avoid unnecessary removal of vegetation. All facilities must be fenced;
- ❖ Appropriate drainage of the site must be provided. Locations used for car parking, workshops and fuel storages must be drained toward the oil-water separator;
- ❖ Only trained workers, who can remove any consequences of accidental spillage, may handle the fuel;
- ❖ Waste oil, oil filters and fuel must be stored on safe locations.
- ❖ Sanitary wastewater and polluted water must be treated before the water is discharged into the surface water flow system, in line with the Law on Water (Official Gazette of RS, Nos. 30/10, 93/12);
- ❖ Contractor must provide safety measures to prevent soil erosion and use the methods to decrease the stormwater runoff that carries eroded material;
- ❖ Excavations and machinery works must be avoided when the soil is damp;
- ❖ Upon the completion of works, machinery, construction material, containers and all other equipment must be removed in due time;
- ❖ When the site is ready to be closed, all contaminated soil must be excavated and replaced with a new layer of soil;
- ❖ Upon the completion of works, the soil must be cultivated on all the critical locations, using suitable plants which are biologically adapted to the subject climatic conditions, resistant to air pollution and visually fitting for the surrounding area. Invasive species, such as the black locust, Indigo bush, ash leaf maple, ailanthus, American ash and species that cause allergic reactions, such as poplar, should be avoided.

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

### **Environmental Protection Plan**

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

The Contractor is required to have a qualified and experienced person in the team, who 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, refuelling the facilities and machines, procedures for decreasing the risk of water and soil pollution. Vehicles used for refuelling will have the suitable equipment used for cleaning fuel spills. All classes of spills will be reported in line with the Plan;



4. *Waste Management Plan* – contains details of temporary waste storage, waste transport and treatment before its final disposal or recycling. Licensed facilities must be used for storing solid and liquid waste and the waste leaving the site must be traceable, in accordance with the jurisdictions. As part of the Plan, Contractor shall provide chain-of-responsibility forms for the waste that leaves the site. Therefore, waste controller shall keep one copy of the form, and the driver shall have a copy, to make sure that all the listed waste is brought to the landfill. Contractor shall keep all records for audit purposes.
5. *Sewerage and Waste Water Management Plan*
6. *Soil Management Plan* – steps to be taken to minimize the effect of erosion, measures to reduce topsoil depletion, transport roads and landfills;
7. *Noise* – all the equipment must have a license and must be approved in accordance with the EU standards. This applies to all machinery, vehicles and sites where noise and vibrations affect the noise-sensitive receptors. In accordance with the Law on Protection against Environmental Noise (Official Gazette of RS, Nos. 36/09, 88/10), Contractor is responsible for ensuring the noise and vibrations do not affect the local community. Contractor shall limit his works to a period from 07:00 am to 07:00 pm.
8. *Dust Emission Reduction Plan* – during the works, when dust may form, Contractor shall monitor the conditions on site and application of measures to control dust emissions, which include reduced traffic during road rehabilitation works and spraying water on the exposed surfaces;
9. *Material Excavation and Extraction Location Plan* – defines the reparation measures to be implemented for the areas of borrow-pits and access roads after the project is finished;
10. *Management Plan for Works on the River* – includes plans and procedures for water habitat and fish preservation during the works.
11. *Emergency Response Plan* – sets out the procedures for reacting in case of emergency or accidents of a bigger or smaller scale, to protect the people, property and natural resources. Equipment to be brought on site to minimize the effects of the spillage of polluting substances must be included in the Plan.
12. *Recultivation Plan* – cleaning and recultivation of the site and removal of Contractor's facilities. Contractor is responsible for clearing the site. This includes the removal of all waste material, machinery and contaminated soil. In line with the Law on Waste Management (Official Gazette of RS, Nos. 36/09, 88/10, 14/10), Contractor shall develop a plan for handover, selling or removal of all vehicles and machinery, to remove them from site. All site and work areas will be rehabilitated, in order to be reinstated as much as possible. This includes stabilization and landscaping of all sites. In line with the Law on Environmental Protection (Official Gazette of RS, Nos. 135/04, 36/09, 72/09, 43/11, 14/16), after the works are completed, waste must not remain on site. If waste is not removed by the Contractor, PERS is entitled to withhold payment and organize the cleaning of the area. The costs of the cleaning and the administrative costs will be included in the final payment.
13. *Plan of Environmental Complaints* – means used by the local residents and third parties affected by the project to call attention to environmental issues and file a complaint, defining how and to whom these should be addressed (Appendix 4, Grievance Mechanism).

## **Safety**

Contractor should identify potential risks before the commencement of works. The emergency response provisions should include a Site Safety Plan, which includes a

proposal for a contact person available in the event of an accident. Site Safety Plan is submitted to the Project Supervision Consultant for approval.

- ❖ Contractor shall ensure that drugs and alcohol are not used on site;
- ❖ Contractor is to include in his Site Safety Plan a provision for safe working environment and safety measures and personal protective equipment (PPE) for all workers, including gloves, hard hats, goggles, ear protection and safety footwear;
- ❖ Site Safety Plan is to include a provision for first aid to be administered on site and a trained person must be engaged in line with the Law on Occupational Health and Safety (Official Gazette of RS, Nos. 101/05, 91/15);
- ❖ Contractor shall provide to his workers potable water supply, toilets and water supply for washing;
- ❖ Safety Labour Management Plan is required to ensure health and safety provisions during the works on heavy maintenance;
- ❖ Contractor shall perform all project activities following the SLMP and all Serbian laws and by-laws regarding health and safety.

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

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

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

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

### **Operational Phase**

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

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

## **B. MONITORING PLAN**

Basic components of the Monitoring Plan are:

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

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

## **C. INSTITUTIONAL IMPLEMENTATION AND REPORTING ARRANGEMENTS**

### **Project Implementation**

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

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

- ❖ Contractor shall prepare Environmental Protection Plan and take all steps to mitigate ecological effects as stated in the Environmental Mitigation Plan (Appendix 1);
- ❖ Contractor should not be compensated for the costs of the required mitigation measures and monitoring activities in the form of a specific item in the total price, except for the analysis of the quality of water and noise measuring. Contractor will be deemed to have included these costs in the total price. The actual costs of the analysis of water quality and noise measuring will be paid to the Contractor as part of a specific item in the total price. Failure to follow the requested environmental mitigation measures on the Contractor’s part will result in penalizing the Contractor in the form of negative points. Negative points have been established as a measure to stimulate the Contractor to perform his obligations in an organized and timely manner and perform his duty with a high degree of excellence. Negative points consist of two elements – numerical and financial. Each negative point is connected to a sum, representing a permanent reduction in payment for the determined non-conformances in contractual obligations. The number of negative points earned has a cumulative effect. Should the Contractor receive more than a certain number of negative points stated in the Contract, he will not be allowed to participate in PERS tenders in the next two years. Also, if the Contractor is

awarded a certain number of negative points, the employer has the right to break the contract. Monetary value of each negative point and the deadlines for other possible actions by the employer must be clearly stated in the contract. Explanation for the application of these two measures – fees for specific costs and penalties for non-compliance should provide the implementation of all the requested environmental mitigation measures and monitoring activities.

- ❖ Contractor must be explicitly requested to employ an environmental expert. Contractor will be responsible for implementing environmental mitigation measures during road rehabilitation works and should employ an environmental specialist who will supervise the implementation of Contractor's environmental responsibilities. This person will coordinate the work of the Contractor, PERS and the relevant ministry and will deal with every complaint received during the project implementation. In the course of the project, PERS will monitor if the Contractor complies with EMP provisions. Project Supervision Consultant is advised to employ an environmental expert (with knowledge of civil engineering and environmental management), to assist in environmental monitoring.

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

PERS shall also be responsible for the following:

- ❖ Implementation of the requests for environmental protection provided by: State environmental authorities, IFIs and other institutions, Law on Environmental Protection (Official Gazette of RS, Nos. 135/04, 36/09, 72/09, 43/11, 14/16);
- ❖ Implementation of the requests for environmental protection through Contractor's specifications;
- ❖ Project supervision via consulting services for supervision and project implementation;
- ❖ Environmental monitoring supervision via consulting services for environmental monitoring;
- ❖ Preparation of final environmental reports.

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

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

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

## **The Contractor Reporting Arrangements**

### **1. Contractor to PERS**

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

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

In the event of any accidents or environmental threats, there will be immediate reporting about these events. Contractor shall inform the project manager and local authorities immediately after the accident. If the project manager is not available, Contractor shall inform PERS about the accident (phone number +381113040701 or by e-mail: [office@putevi-srbije.rs](mailto:office@putevi-srbije.rs)).

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

### **2. Project Supervisor Consultant to PERS**

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

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

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

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

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

## 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. 19a, Belgrade,<br>Contact person: Igor Radovic,<br>011 3206811 |
| Local community centres | Municipality Negotin  |
| Web site - PERS         | <a href="http://www.putevi-srbije.rs">www.putevi-srbije.rs</a>                  |

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

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

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

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

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

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

| Phase               | Issue   | Mitigation measure   | Institutional responsibility               |                                       |
|---------------------|---|--|--|---------------------------------------|
|                     |   |  | Implementation                             | Supervision                           |
|                     |   | mitigate soil erosion<br>- Contractor shall implement soil conservation method in sensitive areas to prevent or minimize the storm water runoff, which causes material erosion<br>- Contractor is to avoid excavation and machine operations in damp site conditions.  |  |                                       |
|                     | Selection of the location for temporary settlement construction, in the vicinity of or within an existing settlement<br><br>Influence on public health and sociological circumstances | - minimum distance must be kept (buffer zone) between the site and the nearest populated area<br>- influence of the local conditions must be accounted for (wind) to avoid or minimize harmful effects<br>- Contractor's EMP defines health and safety and environmental measures<br>- 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<br>PERS |
|                     | Stakeholder engagement  | Details of the proposed road route, access points and safety features will be disclosed at the location of the planned works. Feedback from local stakeholders will be sought and recorded. Evidence of how feedback has been considered will be recorded in the Main Design.  | PERS and Main Design Designer - Consultant | Main Design Technical Control<br>PERS |
| <b>Construction</b> | <b>Management plans</b>   |  |  |                                       |
|                     | Contractor shall prepare the implementation of the Plans described in the EMP, to   |  |  |                                       |

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

| Phase               | Issue   | Mitigation measure  | Institutional responsibility                      |   |
|---------------------|---|---|---|---|
|                     |   |   | Implementation                                    | Supervision                                       |
|                     | sand and gravel borrow-pits:<br>river bed disturbance,<br>quality of water, ecosystem disturbance | - use the existing borrow pits or buy material from licensed separation facilities;<br>- requirement for official approval or valid operating license   | Contractor or gravel and sand separation facility | Contractor or gravel and sand separation facility |
| <b>Construction</b> | <b>Material Transport</b>   |   |   |   |
|                     | asphalt:<br>dust, fumes   | - all trucks need to be covered<br>- Contractor's machinery to be carefully selected  | truck operator                                    | truck operator                                    |
|                     | stone:<br>dust  | wet truck load  | truck operator                                    | truck operator                                    |
|                     | sand and gravel:<br>dust  | wet truck load  | truck operator                                    | truck operator                                    |
|                     | management of traffic noise, exhaust fumes and road congestion                                    | - haul material at off-peak traffic hours (from 09:00 am to 02:00 pm)<br>- use alternative roads to avoid main roads<br>- proper road signs and markings of the site, to minimise chances of a wrong turn       | transport manager<br>truck operator               | transport manager<br>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                          |
| <b>Construction</b> | <b>Construction Site</b>  |   |   |   |
|                     | negative impact of noise on the workers and local community                                       | - limit the activities to daylight working hours<br>- use equipment with noise mufflers, licensed and approved in accordance with the EU standards<br>- use noise barriers for the works that produce noise for | Contractor  | Contractor  |

| Phase | Issue   | Mitigation measure  | Institutional responsibility |             |
|-------|---|---|------------------------------|-------------|
|       |   |   | Implementation               | Supervision |
|       |   | <ul style="list-style-type: none"> <li>more than one day on the same location.</li> <li>- locate noise-making equipment as far away as possible from residential buildings and other noise-sensitive receptors.</li> </ul>  |                              |             |
|       | dust  | <ul style="list-style-type: none"> <li>- spray the problematic areas on site with water</li> <li>- cover the material stored and limit vehicle speed</li> <li>- implement the Dust Management Plan: measures for avoiding dust emission, including hoarding, spraying the problematic areas, accesses, material and stockpiles during the loading and unloading activities, covering the trucks that carry dusty material, washing the trucks etc.</li> </ul>   | Contractor                   | Contractor  |
|       | vibrations  | <ul style="list-style-type: none"> <li>- limit activities to daylight working hours</li> <li>- if there is material damage to the local houses, buildings and infrastructure (access roads included) caused by the works, the damage will be compensated for and will have to be rectified</li> <li>- locate the equipment for earth works as far away as possible from vibration-sensitive receptors</li> </ul>  | Contractor                   | Contractor  |
|       | traffic disruption during construction activities | <ul style="list-style-type: none"> <li>- Traffic Management Plan with appropriate measures for traffic diversions that can be easily noted and followed, including traffic police assistance</li> <li>- Traffic Management Plan which will define a speed limit for the construction vehicles and organize traffic in such a way that populated areas are avoided as much as possible</li> <li>- during the works, maximum use of the existing road network. Avoid the construction of new temporary roads, which would increase the habitat fragmentation</li> </ul> | Contractor                   | Contractor  |

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

| Phase | Issue   | Mitigation measure  | Institutional responsibility |             |
|-------|---|---|------------------------------|-------------|
|       |   |   | Implementation               | Supervision |
|       |   | degraded by the works must be done.   |                              |             |
|       | soil and water pollution from improper waste material disposal                                | <ul style="list-style-type: none"> <li>- dispose waste material at a location protected from washing out, on a marked location, if not on site, then on an authorised landfill (the proposal of the authorized landfill is a regional landfill "Halovo" which should be built according to the newest planning documentation of the municipality of Negotin or the proposal of the authorized landfill is another sanitary landfill in accordance with the European standards and the law of the Republic of Serbia)</li> <li>- dispose waste in accordance with best international practice (IFC, EHS – general guidelines).</li> <li>- apply additional measures for storing hazardous waste (secondary containment, limiting the access, providing PPE etc.) to prevent negative effects on the workers, local community or environment</li> <li>- nominate a person responsible for waste collection and storage (hazardous and non-hazardous)</li> </ul> | Contractor                   | Contractor  |
|       | 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 authorized recycling locations  | Contractor                   | Contractor  |
|       | soil and water pollution from improper waste material disposal                                | <ul style="list-style-type: none"> <li>- transport the waste in marked vehicles designed for waste transport, to minimize the risk of releasing hazardous and non-hazardous substances</li> <li>- 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</li> </ul>   | Contractor                   | Contractor  |
|       | safety of workers   | <ul style="list-style-type: none"> <li>- provide workers with safety instructions and PPE</li> <li>- provide a safe alternative traffic flow</li> </ul>   | Contractor                   | Contractor  |



| Phase              | Issue   | Mitigation measure   | Institutional responsibility |                        |
|--------------------|---|--|------------------------------|------------------------|
|                    |   |  | Implementation               | Supervision            |
|                    | areas temporarily occupied  | <ul style="list-style-type: none"> <li>- undertake re-vegetation with native species and monitor the effects (avoid invasive species those that cause allergic reactions)</li> <li>-where initial plantings were not successful, carry out re-planting</li> </ul>  | Contractor                   | Contractor             |
| <b>Operational</b> | <b>Maintenance</b>  |  |                              |                        |
|                    | negative impact of noise on local residents and workers   | <ul style="list-style-type: none"> <li>- limit activities to daylight working hours, or as agreed with the authorities</li> <li>- use the equipment with noise mufflers installed</li> </ul>   | maintenance Contractor       | maintenance Contractor |
|                    | potential air, water and soil pollution:<br>dust, exhaust fumes, spilt fuel, oil and lubricants | <ul style="list-style-type: none"> <li>- apply the best engineering practice in handling and safe storage of lubricants, fuel and oil</li> <li>- ensure proper loading of fuel and maintenance of equipment</li> <li>- collect and dispose all waste in accordance with the Law on Waste Disposal</li> <li>- properly organize and cover the areas for material storage</li> <li>- isolate concrete and asphalt works from the watercourse by using sealed formwork</li> <li>- isolate the area for washing trucks for the transport of concrete and asphalt and all other equipment from the watercourse, by choosing the area for washing where the water is not freely drained directly or indirectly into the rivers</li> <li>- dispose the waste material to suitable locations protected from washing out</li> </ul> | maintenance Contractor       | maintenance Contractor |
|                    | vibrations  | limit activities to daylight working hours, or as agreed with the authorities  | maintenance Contractor       | maintenance Contractor |

| Phase | Issue                                  | Mitigation measure  | Institutional responsibility |                        |
|-------|--|---|------------------------------|------------------------|
|       |  |   | Implementation               | Supervision            |
|       | safety of workers                      | - provide workers with safety instructions and PPE<br>- 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 (rock fall, landslide, wet or slippery conditions, dangerous curve, animal or pedestrian crossing, school, slow traffic zone), reflective markings indicating steep slopes or convex mirrors in curves where there is a lack of visibility, warning signs on locations considered appropriate in line with good engineering practice or as agreed with the authorities | maintenance Contractor       | maintenance Contractor |

## **APPENDIX 2 MONITORING PLAN**

## MONITORING PLAN

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

| 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>sand and gravel</i>  | truckload covered or wetted      | site  | supervision                        | unannounced inspections during the works, at least once a week   | ensure the compliance with the health and safety and environmental requirements   | Contractor's supervision              |
| <i>traffic management</i>   | hours and routes selected        | site  | supervision                        | unannounced inspections during the works, at least once a week   | ensure the compliance with the health and safety and environmental requirements and minimal disruptions to traffic          | Contractor's supervision              |
| <b>Construction</b>   | <b>Construction site</b>         |   |                                    |  |   |                                       |
| <i>negative effects of noise on the workers and local residents</i> | noise levels                     | site; nearest homes in the local settlement | sound meter with suitable software | -once at the beginning of the project and later quarterly<br>-after receiving a complaint<br>-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)               |
| <i>dust</i>   | air pollution (suspended solids) | on and near the site                        | inspection and visual observation  | unannounced inspections during material delivery and construction works  | ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic | Contractor's supervision (monitoring) |

| 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 construction works and after a complaint is received | ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic | Contractor's supervision     |
| <i>disruptions to traffic during construction works</i>                              | existence of a Traffic Management Plan and traffic pattern | on and near the site                      | inspection and visual observation | prior to the start of the works; once a week in peak and non-peak hours             | ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic | Contractor's supervision     |
| <i>reduced access to roadside activities</i>   | alternative access provided                                | site                                      | supervision                       | random checks at least once a week during the construction works                    | ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic | Contractor's supervision     |
| <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     |

| 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>water and soil pollution resulting from improper material storage, management and use</i> | soil and water quality (suspended solids, oils, ph values, conductivity) | Timok River, Jasenicka and Sikolska River, their tributaries and Kanal Vodne Zajednice | 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 downstream 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       |
| <b>Operational</b>   | <b>Maintenance</b>   |  |  |  |   |                              |
| <i>negative effect of noise on the workers and local residents</i>                           | noise levels   | site; nearest homes  | sound meter with suitable software   | unannounced inspections during the maintenance activities and after receiving a complaint  | ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic | PERS                         |
| <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                         |

| 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 workers</i>                          | PPE;<br>bypass traffic organisation          | site                                      | inspection                                   | unannounced inspections during the maintenance activities and after receiving a complaint | ensure the compliance of works with the health and safety and environmental requirements and minimal disruptions to traffic | PERS                                      |
| <b>Operational</b>                                | <b>Road safety</b>                           |   |  |   |   |   |
| <i>increased vehicle speed</i>                    | condition of traffic signs;<br>vehicle speed | road section included in the design       | visual observation;<br>radar speed detectors | during the maintenance activities; unannounced  | ensure a safe and economical traffic flow   | maintenance Contractor;<br>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,<br>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"/><br>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"/><br>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"/><br>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"/><br>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"/><br>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"/><br>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"/>                                | If yes, please provide details, including how the Company is ensuring that corrective actions are implemented by the Contractor?   |

|   |   |                          |
|---|---|--------------------------|
|   | No <input type="checkbox"/>                                 |                          |
| Have any operations been reduced, temporarily suspended or closed down due to environmental, health, safety or labour reasons?  | Yes <input type="checkbox"/><br>No <input type="checkbox"/> | If yes, please describe: |
| <p>Please describe any environment or social programmes, initiatives or sub-projects undertaken during the reporting period to improve the company's environmental or social performance and/or management systems:</p> <p>Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Action Plan, or to any other initiative:</p> |   |                          |

## 2. Status of the Environmental and Social Action Plan

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

### 3. Environmental Monitoring Data<sup>7</sup>

| Please provide the name and contact details for your environmental manager: |                    |      |                                 |                        |
|---|--------------------|------|---------------------------------|------------------------|
| Parameter <sup>8</sup>  | Value <sup>9</sup> | Unit | Compliance Status <sup>10</sup> | Comments <sup>11</sup> |
| <b>Waste Water</b>  |                    |      |                                 |                        |
| Total waste water generated   |                    |      |                                 |                        |
| BOD   |                    |      |                                 |                        |
| COD   |                    |      |                                 |                        |
| Suspended Solids  |                    |      |                                 |                        |
| Phosphorus  |                    |      |                                 |                        |
| Nitrates  |                    |      |                                 |                        |
| Heavy metals  |                    |      |                                 |                        |
| [Other]   |                    |      |                                 |                        |
| <b>Air Emissions</b>  |                    |      |                                 |                        |
| SO <sub>2</sub>   |                    |      |                                 |                        |
| NO <sub>x</sub>   |                    |      |                                 |                        |
| Particulates  |                    |      |                                 |                        |
| CO <sub>2</sub>   |                    |      |                                 |                        |
| CH <sub>4</sub>   |                    |      |                                 |                        |
| N <sub>2</sub> O  |                    |      |                                 |                        |
| HFCs  |                    |      |                                 |                        |
| PFCs  |                    |      |                                 |                        |

<sup>7</sup> Please provide the results of any environmental monitoring carried out by the Company or its Consultants. If you already have all the data requested available in another format, then this can be used instead.

<sup>8</sup> Not all parameters will necessarily apply. Please complete those rows that are most relevant to the industry sector. Additional parameters can be added as necessary.

<sup>9</sup> Please ensure that the units of measurement are clearly stated

<sup>10</sup> Please report on compliance against the standards agreed with EBRD for this project (typically local, EU and/or World Bank Group)

<sup>11</sup> In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility

| Please provide the name and contact details for your environmental manager:   |                    |      |                                 |                        |
|---|--------------------|------|---------------------------------|------------------------|
| Parameter <sup>8</sup>  | Value <sup>9</sup> | Unit | Compliance Status <sup>10</sup> | Comments <sup>11</sup> |
| SF <sub>6</sub>   |                    |      |                                 |                        |
| [Other]   |                    |      |                                 |                        |
| <b>Other Parameters</b>   |                    |      |                                 |                        |
| Noise   |                    |      |                                 |                        |
| [Other]   |                    |      |                                 |                        |
| <b>Solid Waste</b>  |                    |      |                                 |                        |
| Please provide details of the types and amounts of solid wastes generated by the project. Indicate where wastes are classified as hazardous. Indicate the final re-use, recycle or disposal method for each waste type. |                    |      |                                 |                        |

| 4. Resource Usage and Product Output |       |                  |                        |
|--------------------------------------|-------|------------------|------------------------|
| Parameter                            | Value | Measurement Unit | Comments <sup>12</sup> |
| <b>Fuels used</b>                    |       |                  |                        |
| Oil                                  |       |                  |                        |
| Gas                                  |       |                  |                        |
| Coal                                 |       |                  |                        |
| Lignite                              |       |                  |                        |
| Grid Electricity                     |       |                  |                        |
| Heat Purchased                       |       |                  |                        |

<sup>12</sup> In addition to any other comments, please indicate whether the measurements reported apply to all or only some process operations at the facility. Please include any fuel quality parameters (e.g. calorific value)

#### 4. Resource Usage and Product Output

| Parameter                             | Value | Measurement Unit | Comments <sup>12</sup> |
|---------------------------------------|-------|------------------|------------------------|
| Feedstocks and raw materials consumed |       |                  |                        |
| Name 1                                |       |                  |                        |
| Name 2                                |       |                  |                        |
| Product output                        |       |                  |                        |
| Product 1                             |       |                  |                        |
| Product 2                             |       |                  |                        |

#### 5. Human Resources Management

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

|   | Total   | Recruited in this reporting period  | Dismissed in this reporting period |
|---|---|---|------------------------------------|
| <b>Number of direct employees:</b>  |   |   |                                    |
| <b>Number of contracted workers:</b>  |   |   |                                    |
| Were there any collective redundancies during the reporting period?                                     | Yes <input type="checkbox"/><br>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"/><br>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"/><br>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"/><br>No <input type="checkbox"/> | If yes, please provide details and summarize engagement with them during reporting period:  |                                    |
| Were there any changes in the status of Collective Agreements?  | Yes <input type="checkbox"/><br>No <input type="checkbox"/> | If yes, please provide details:   |                                    |

|  |  |   |
|--|--|---|
| <p>Have employees raised any grievances with the project during the reporting period?</p>  | <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> | <p>If yes, please state how many, split by gender, summarize the issues raised in grievances by male and female staff and explain how the Company has addressed them:</p> |
| <p>Have employees raised any complaints about harassment or bullying during the reporting period?</p>  | <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> | <p>If yes, please state how many, split by gender, summarize the issues raised by male and female staff and explain how the Company has addressed them:</p>               |
| <p>Have there been any strikes or other collective disputes related to labour and working conditions at the Company in the reporting period?</p>   | <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> | <p>If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved</p>   |
| <p>Have there been any court cases related to labour issues during the reporting period?</p>   | <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> | <p>If yes, please summarize the issues contested and outcome:</p>   |
| <p>Have there been any changes to the following policies or terms and conditions during the reporting period in any of the following areas:</p> <ul style="list-style-type: none"> <li>• Union recognition</li> <li>• Collective Agreement</li> <li>• Non-discrimination and equal opportunity</li> <li>• Equal pay for equal work</li> <li>• Gender Equality</li> <li>• Bullying and harassment, including sexual harassment</li> <li>• Employment of young persons under age 18</li> <li>• Wages (wage level, normal and overtime)</li> <li>• Overtime</li> <li>• Working hours</li> <li>• Flexible working / work-life balance</li> <li>• Grievance mechanism for workers</li> <li>• Health &amp; safety</li> </ul> | <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> | <p>If yes, please give details, including of any new initiatives:</p>   |

## 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 <sup>13</sup> :                                |                  |                    |
| Budget spent on OHS in this period (total amount and currency): |                  |                    | Number of disabling injuries:                                       |                  |                    |
| OHS training provided in this period in person-days:            |                  |                    | Number of Lost Time Incidents (including vehicular) <sup>14</sup> : |                  |                    |
| Number of lost workdays <sup>15</sup> resulting from incidents: |                  |                    | Number of cases of occupational disease:                            |                  |                    |
| Number of sick days:  |                  |                    |   |                  |                    |

Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):

Please provide details of any fatalities or major accidents that have not previously been reported to EBRD, including total compensation paid due to occupational injury or illness (amount and currency):

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:

<sup>13</sup> If you have not already done so, please provide a separate report detailing the circumstances of each fatality.

<sup>14</sup> Incapacity to work for at least one full workday beyond the day on which the accident or illness occurred.

<sup>15</sup> Lost workdays are the number of workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

**7. Stakeholder Engagement**

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

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

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

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

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

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

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

|  |  |   |
|--|--|---|
| Have all the affected persons been fully compensated for their physical displacement and, if applicable, any economic losses resulting from the project? | Yes <input type="checkbox"/> No <input type="checkbox"/> | If no, specify how many compensation payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made: |
|--|--|---|



|   |   |  |
|---|---|--|
| Has the land acquisition had any additional, unforeseen impacts on affected persons' standard of living or access to livelihoods that were not previously covered in the RAP? | Yes <input type="checkbox"/> No <input type="checkbox"/>  | If yes, quantify these impacts and specify what measures have been undertaken to minimize and mitigate these impacts. If no, specify how potential impacts on livelihoods have been monitored. |
| Have any vulnerable groups been identified?   | Yes <input type="checkbox"/> No <input type="checkbox"/>  | If yes, list the groups that were identified and describe any additional measures undertaken in order to mitigate impacts specific to these groups.  |
| If applicable, have all transit allowances been paid?   | Yes <input type="checkbox"/> No <input type="checkbox"/>  | If no, specify how many payments are still outstanding (in terms of number and percentage of recipients and payment amounts) and state when these payments will be made.                       |
| Has legal support been provided to all the affected persons?  | Yes <input type="checkbox"/> No <input type="checkbox"/>  | If yes, specify how many persons effectively made use of the legal support.  |
| Have all outstanding land and/or resource claims been settled?  | Yes <input type="checkbox"/> No <input type="checkbox"/><br>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 summarize any social or community development initiatives undertaken by the company during the reporting period, and any associated expenditure:

## **APPENDIX 3 LEGISLATION**

## RELEVANT SERBIAN ENVIRONMENTAL LEGISLATION:

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

- ❖ Law on planning and construction (Official Gazette of RS, Nos. 72/2009, 81/2009, 64/2010, 24/2011, 121/2012, 42/2013, 50/2013, 98/2013, 132/2014, 145/2014);
- ❖ Law on nature protection (Official Gazette of RS, Nos. 36/09, 88/10, 91/10, 14/16);
- ❖ Law on environmental protection (Official Gazette of RS, Nos. 135/04, 36/09, 72/09, 43/11, 14/16);
- ❖ Law on EIA (Official Gazette of RS, Nos. 135/2004, 36/2009,);
- ❖ Law on Strategic EIA (Official Gazette of RS, Nos. 135/2004, 88/10);
- ❖ Law on waste management (Official Gazette of RS, Nos. 36/09, 88/10, 14/16);
- ❖ Law on noise protection (Official Gazette of RS, Nos. 36/09, 88/10);
- ❖ Law on water (Official Gazette of RS, Nos. 30/10, 93/12, 101/16);
- ❖ Law on forests (Official Gazette of RS, Nos. 30/10, 93/12, 89/15);
- ❖ Law on air protection (Official Gazette of RS, Nos. 36/09, 10/13);
- ❖ Law on safety and health at work (Official Gazette of RS, Nos. 101/05, 91/15, 113/17).

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

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

Other relevant Serbian legislation:

- ❖ Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area (Official Gazette of RS, No. 38/09);
- ❖ Law on Roads (Official Gazette of RS, No. 41/18).

**APPENDIX 4 STAKEHOLDER ENGAGEMENT**

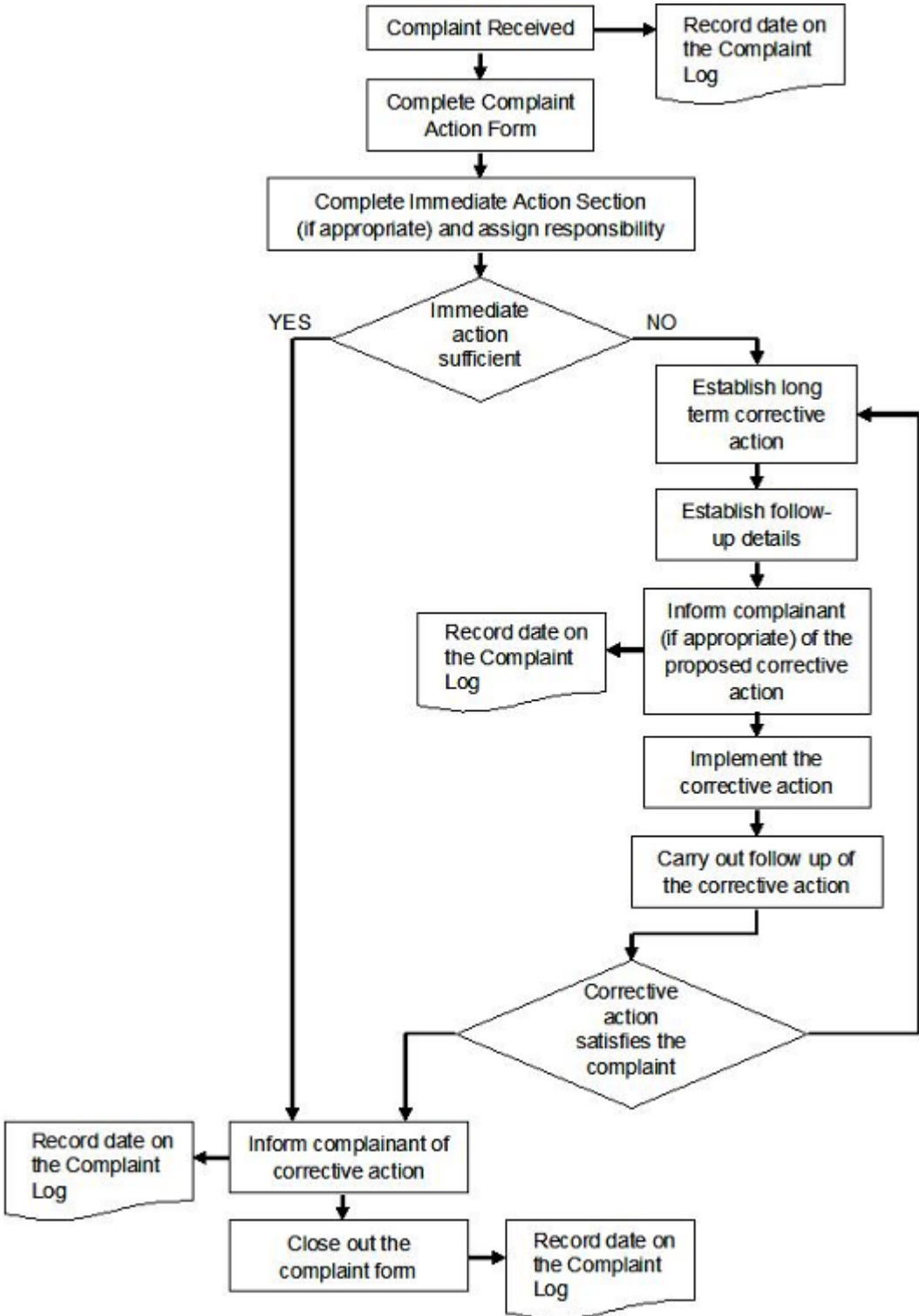
## Identification of stakeholders

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

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

As the Project develops, more stakeholders may appear. Once it is identified, each stakeholder will be 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?<br>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 authorized persons   | by post:   |          |             |
|   | by hand:<br>please drop this form at:  |          |             |
|   | by e - mail:<br>Please e-mail your grievance, proposed resolution and contact details to the following e – mail address: |          |             |
| Signature   |  | Date     |             |





**PUBLIC ENTERPRISE  
ROADS OF SERBIA**

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## **REPORT ON PUBLIC CONSULTATION**

### for site-specific **ENVIRONMENTAL MANAGEMENT PLAN**

for

Preparation of Main Design for Heavy  
Maintenance (Road Rehabilitation - Upgrading) of  
the State road IB 33, section: Negotin (Radujevac)-  
state border SRB/BUG (Mokranje), L = 12.919 km

– Environmental Category B –



Belgrade, February 2019

## 1. BACKGROUND

The Republic of Serbia has applied for financing towards the costs of the Road Rehabilitation and Safety 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 33 section: Negotin (Radujevac) - state border SRB/BUG (Mokranje), L = 12.919 km.

This Environmental Management Plan (EMP) has been prepared for heavy maintenance (road rehabilitation – upgrading) of subject road section, 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).

Company Panpro Team d.o.o., as partner in Joint Venture who is preparing subject design, has prepared a draft document, the Environmental Management Plan, for the rehabilitation of the national road IB 33 section: Negotin (Radujevac) - state border SRB/BUG (Mokranje), L = 12.919 km, which has been submitted for pre-final review on December 13<sup>th</sup> 2018 to the Technical Control and Client for comments and no objection. The Environmental Management Plan was created with the aim to ensure the implementation of best practices in accordance with the requirements of international financial institutions in environmental protection. Creating an Environmental Management Plan was carried out through study and research in the field, including consultations with representatives at regional and local participants. Environmental Management Plan is based primarily on studies in the field completed during summer months in 2018.

On January 15<sup>th</sup> 2019 the Public Enterprise "Roads of Serbia" approved to start the public consultation process of the Environmental Management Plan. Public Enterprise "Roads of Serbia" has started a public consultation and disclosure of the document on January 16<sup>th</sup> 2019.

PE "Roads of Serbia" on January 16<sup>th</sup> 2019 issued a call for a public discussion to the authorities, organizations and the public concerned for the Environmental Management Plan for the rehabilitation works on the section of road Negotin (Radujevac) - state border SRB/BUG (Mokranje). Public auditorium, organizations and other interested parties were invited to participate in the public debate on the draft document Environmental Management Plan. Before its advertising in newspapers, Environmental Management Plan has been submitted to the Municipality of Negotin. City representatives informed the public through announcement board and Municipality of Negotin website about the time and place of the public discussion. The call was also published on the website of PE "Roads of Serbia".

Access to a document was provided at the following addresses:

- o the headquarters of PE "Roads of Serbia", Sector for Investments, Vljakoviceva 19a, Belgrade, on the first floor, every working day from 11:00 AM to 01:00 PM, within 15 days from January 16<sup>th</sup> 2019
- o on the premises of the Municipality of Negotin, Office for Urbanisam, Civil engineering and environmental protection, Square Stevana Mokranjca no. 1, 19300 the Municipality of Negotin, every working day from 08:00 AM to 01:00 PM (local time), within 15 days from the January 16<sup>th</sup> 2019
- o the PE "Roads of Serbia" website: [www.putevi-srbije.rs](http://www.putevi-srbije.rs).

Public discussion and presentation of the Environmental Management Plan was held in the premises of the Municipality of Negotin, on the January 31<sup>st</sup> 2019, with the beginning at 10:00 AM.

## **2. REPORT ON PUBLIC CONSULTATION, Negotin, January 31<sup>st</sup> 2019**

In accordance with OP 4.01 World Bank, PE "Roads of Serbia" has prepared a document - Environmental Management Plan for work on heavy maintenance (Road rehabilitation-upgrading) of State road IB 33, section: Negotin (Radujevac) - state border SRB/BUG (Mokranje), L = 12.919 km.

Presentation of the Environmental Management Plan began on January 16<sup>th</sup> 2019, 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 Negotin 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 announcing the time and place of the public consultation. Publication of the pre-final document of the Environmental Management Plan ended on January 31<sup>st</sup> 2019 when the public meeting was held in the Municipality of Negotin.



Photo 1: Public discussion in Negotin, January 31<sup>st</sup> 2019



Photo 2: Public discussion in Negotin, January 31<sup>st</sup> 2019

Environmental Management Plan – EMP, REPORT ON PUBLIC CONSULTATION



Photo 3: Public discussion in Negotin, January 31<sup>st</sup> 2019



Photo 4: Public discussion in Negotin, January 31<sup>st</sup> 2019

Public discussion in Negotin was attended by 6 people - Interested representatives of Municipality of Negotin, the representatives of the local government and the representatives of Office for Urbanisam, Civil engineering and environmental protection.

The meeting began as planned at 10:00 AM. A representative of the Panpro Team, spatial planner Milica Simic presented digital form of EMP document via PowerPoint, and together with 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.

During the EMP presentation following questions were raised by present auditorium:

1. When the rehabilitation will begin?

Answer: The execution of the rehabilitation depends on the decision of PE "Roads of Serbia".

2. Where will the road by the cemetery be relocated?

Answer: The road will be relocated translatory to the left in the direction of change growth.

3. If the inspectorate of Municipality of Negotin determines, during the performance of works, that there are complaints about the implementation of measures from EMP document, which institution should they address?

Answer: The inspectorate of Municipality of Negotin addresses to the PE "Roads of Serbia" which is responsible for the implementation of the project.


4. Where will the bicycling paths pass, will they connect with Euro Velo 6?

The bicycling paths will pass through the inhabited part of Negotin and will be combined with pedestrian paths, as Euro Velo 6 bike path passes from Negotin to the Bulgarian border, but on subject section from node 3320 to the border with the Republic of Bulgaria bicycle path will have the same route as the present national road.

The public discussion ended at 10:55 AM local time.



## 4. DOCUMENTATION



In accordance with the WB Operational Policies (OP 4.01)  
**Public Enterprise "Roads of Serbia"**  
issues an invitation for  
**PUBLIC CONSULTATIONS**  
for the public, bodies and organizations interested in  
**ENVIRONMENTAL MANAGEMENT PLAN (EMP)**  
for heavy maintenance (road rehabilitation-  
upgrading) of the State Road IB No. 33 section:  
**NEGOTIN (RADUJEVAC) – STATE BORDER  
SRB/BUG (MOKRANJE)**

Interested parties can get an insight into the EMP document on following addresses:

- the premises of the PE "Roads of Serbia", investment sector, 19a Vojkovića St., Belgrade, on the first floor, on working days from 11:00 AM to 1:00 PM (local time), within 15 days in regards to the date of public announcement of this invitation,
- within the premises of the Municipality of Negotin, Office for Urbanism, Civil engineering and environmental protection, street Trg Stevana Mokranjca no. 1, 19300 the Municipality of Negotin, on working days from 8:00 AM to 1:00 PM (local time), within 15 days from the date of publication of this invitation,
- on the web site of the Municipality of Negotin: <http://negotin.rs>
- on PE "Roads of Serbia" web site: [www.putevi-srbije.rs](http://www.putevi-srbije.rs)

Remarks and suggestions in regards to the EMP document shall be submitted in written form to the PE "Roads of Serbia", Sector for investments, 19a Vojkovića St., Belgrade. Remarks can be also provided on following internet address: [office@putevi-srbije.rs](mailto:office@putevi-srbije.rs)

On January 31, 2018, at 10:00 PM (local time), public consultations and presentation of the subject EMP document will be organized within the Main Conference Room of the Municipality of Negotin, street Trg Stevana Mokranjca no. 1, 19300 the Municipality of Negotin.

If you need any additional information, please contact:

PE "Roads of Serbia"  
Sector for investments  
19a Vojkovića Street  
11000 Belgrade, Serbia  
tel./fax: +381 11 / 32 06 813  
Email: [igor.nackvic@putevi-srbije.rs](mailto:igor.nackvic@putevi-srbije.rs)

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2-15

Photo 5: Announcement of public consultation in daily newspaper ("Politika")



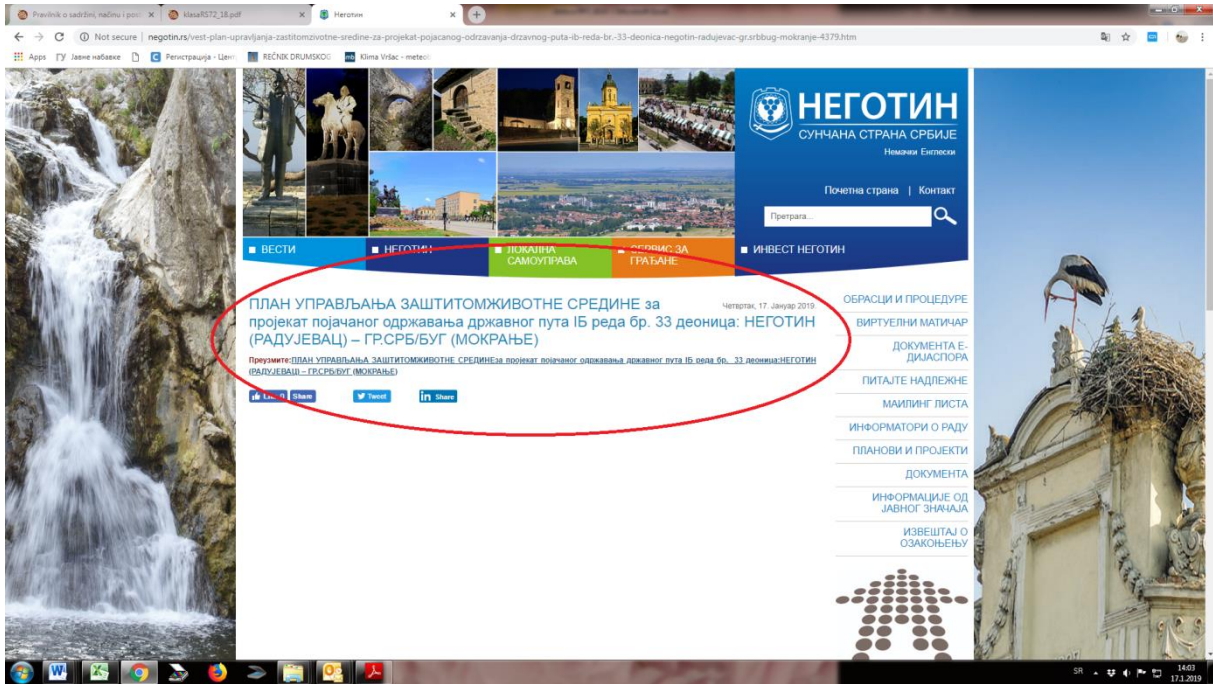


Photo 6: Announcement of public consultation on the web site of Negotin

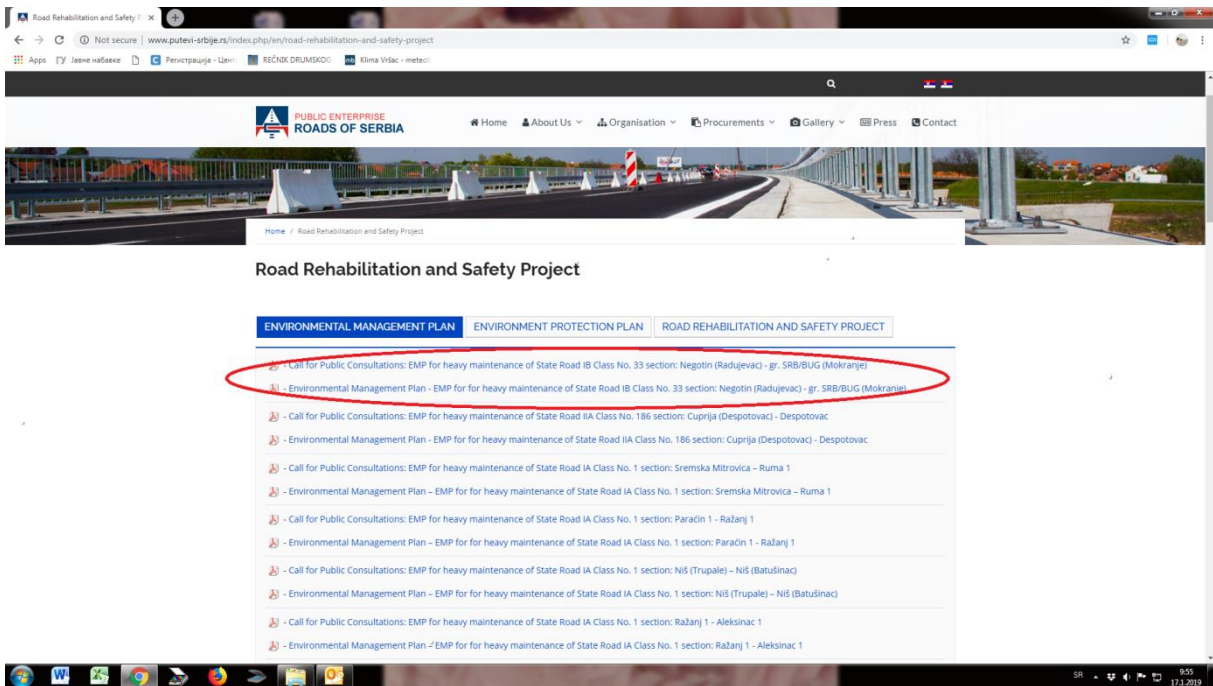


Photo 7: Announcement of public consultation on the web site of PE "Roads of Serbia"



In accordance with the WB Operational Policies (OP 4.01)

Public Enterprise "Roads of Serbia" issues an invitation for

## **PUBLIC CONSULTATIONS**

for the public, bodies and organizations interested in

### **ENVIRONMENTAL MANAGEMENT PLAN (EMP)**

**for heavy maintenance (road rehabilitation- upgrading) of the State Road  
IB No. 33 section:**

**NEGOTIN (RADUJEVAC) – STATE BORDER SRB/BUG (MOKRANJE)**

Interested parties can get an insight into the EMP document on following addresses:

- o the premises of the PE "Roads of Serbia", investment sector, 19a Vlajkovićeve St., Belgrade, on the first floor, on working days from 11:00 AM to 1:00 PM (local time), within 15 days in regards to the date of public announcement of this invitation.
- o within the premises of the Municipality of Negotin, Office for Urbanisam, Civil engineering and environmental protection, street Trg Stevana Mokranjca no. 1, 19300 the Municipality of Negotin, on working days from 8:00 AM to 1:00 PM (local time), within 15 days from the date of publication of this invitation.
- o on the web site of the Municipality of Negotin: <http://negotin.rs>
- o on PE "Roads of Serbia" web site: [www.putevi-srbije.rs](http://www.putevi-srbije.rs)

Remarks and suggestions in regards to the EMP document shall be submitted in written form to the PE "Roads of Serbia", Sector for investments, 19a Vlajkovićeve St., Belgrade. Remarks can be also provided on following internet address: [office@putevi-srbije.rs](mailto:office@putevi-srbije.rs)

On January 31, 2019, at 10:00 PM (local time), public consultations and presentation of the subject EMP document will be organized within the Main Conference Room of the Municipality of Negotin, street Trg Stevana Mokranjca no. 1, 19300 the Municipality of Negotin.

If you need any additional information, please contact:

PE "Roads of Serbia"  
Sector for investments  
19a Vlajkovićeve Street  
11000 Belgrade, Serbia  
tel./fax. +381 11 / 32 06 813  
E-mail: [igor.radovic@putevi-srbije.rs](mailto:igor.radovic@putevi-srbije.rs)

Photo 8: Announcement of public consultation on the web site of PE "Roads of Serbia"

## **APPENDIX 5 CONDITIONS FROM RELEVANT PUBLIC INSTITUTIONS**

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

ЈП  
ЈАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"  
Број 953-18474/2-1  
19-10-2017  
Датум  
БЕОГРАД, Булевар краља Александра бр. 202

Завод за заштиту природе Србије, Београд, Ул. др Ивана Рибара бр. 91, на основу члана 9. Закона о заштити природе („Службени гласник РС“, бр. 36/2009, 88/2010, 91/2010 – исправка и 14/2016) и члана 136. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), поступајући по захтеву II Бр. 953-18474 Јавног предузећа „Путеви Србије“ из Београда, Булевар краља Александра 282, за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IV реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање), дана 18.10. 2017. године под 03 бр. 020-2163/ 3 доноси

### РЕШЕЊЕ

1. Предметно подручје (деоница пута) се не налази унутар заштићеног подручја за које је спроведен или покренут поступак заштите, нити у обухвату простора еколошке мреже. Сходно томе, издају се следећи услови заштите природе:
  - 1) Пројектом Појачаног одржавања деонице државног пута IV реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање) предвидети таква решења и мере који ће обезбедити услове за очување ваздуха, земљишта, подземних и површинских вода у непосредном окружењу (посебно Тимока, Јасеничке, и Сиколске реке и њихових притока, као и Канала Водне Заједнице).
  - 2) При извођењу радова на траси пута, која је непосредно уз Тимок, предвидети максимално очување корита, обала и приобалне вегетације.
  - 3) Није дозвољено уништавање типова станишта шуме пољског јасена (*Fraxinus angustifolia*) (\*91E0) и планинске шуме букве (*Fagus moesiaca*) и граба (*Carpinus betulus*) (91W0), који су забележени на локалитету Кобиница, а према Правилнику о критеријумима за издавање типова станишта, о типовима станишта, осетљивим, угроженим, ретким и за заштиту приоритетним типовима станишта, означени су као станишта од посебног значаја за заштиту на територији Републике Србије. У складу са наведеним неопходно је извођење предметних радова реализовати уз адекватне мере и решења за њихово очување. Карта распрострањења станишта дата је у Прилогу и чини саставни део овог Решења.
  - 4) Предвидети противерозионе мере због заштите од клизишта, одрона и сл. При томе пожељна је већа примена биолошких и биотехничких мера, у комбинацији са одговарајућим техничким мерама, до нивоа функционалне стабилизације терена.
  - 5) Дефинисати да се одводњавање саобраћајнице врши гравитационим отицањем површинских вода и по потреби изградњом отворених канала за прихват површинских вода.
  - 6) За воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима мора се предвидети изградња таложника и сепаратора масти и уља. Пре упуштања у реципијент или канализацију, обавезна је контрола њиховог квалитета.

- 7) Као коловозни застор користити материјале који могу, са аспекта заштите, обезбедити смањење нивоа буке и вибрација и омогућити ефикасно дренажање воде са површине коловоза.
- 8) Предметне радове на траси пута изводити само у току периода дана због могућег негативног утицаја буке од грађевинских машина и возила на животињски свет, чија су станишта у непосредном окружењу.
- 9) При извођењу радова строго се придржавати трасе и коридора пута како се при манипулацији возилима и машинама не би оставиле последице на шири простор. Такође, користити постојећу путну мрежу без изградње нових путева, у циљу спречавања фрагментације простора и постојећих станишта.
- 10) Током извођења радова дуж целе трасе одржавати максимални ниво комуналне хигијене.
- 11) Предвидети превентивне мере ради спречавања акцидентних ситуација, као и одговарајуће активности санације уколико до њих дође, уз обавезу обавештавања надлежних инспекцијских служби.
- 12) Уколико дође до хаваријског изливања горива, уља/мазива и других штетних материја обавезна је санација површине и враћање у првобитно стање.
- 13) Саставни део предметног Пројекта треба да буде и део који се односи на организацију радилшта, при чему је неопходно дефинисати и обезбедити:
  - привремене локације за складиштење потребног грађевинског и другог материјала и опреме, које је неопходно лоцирати ван простора са високом вегетацијом, као и плавних зона Тимока, Јасеничке, Чубранске и Сиколске реке и њихових притока, и ограничити искључиво на време трајања радова;
  - привремене или трајне локације (постојеће уређене комуналне објекте/депоније) за одлагање и депоновање шута и другог отпадног грађевинског материјала у било каквом стању, као и комуналног отпада насталог у току извођења радова, односно забрану њиховог одлагања/депоновања у приобаљу Тимока, Јасеничке и Сиколске реке и њихових притока, као и пољопривредном земљишту, осим на локацијама дефинисаним Пројектом;
  - предвидети да се након завршетка предметних радова све површине које су на било који начин деградирале грађевинским и другим радовима, што пре санирају.
- 14) По изведеним грађевинским радовима неопходно је што пре уклонити сву механизацију, грађевински материјал и друго.
- 15) Уколико је дошло до нарушавања предметног подручја (терена дуж трасе) треба га санирати. У том смислу, успоставити биљни покривач (култивисати терен) на свим угроженим местима, применом одговарајуће флоре и врста које су биолошки постојане у датим климатским условима, отпорније на штетне утицаје (издувне гасове и сл.), као и да је избор врста усклађен са околним простором и његовом наменом.
- 16) Избегавати врсте, које су за наше поднебље препознате као инвазивне: *Acer negundo* (јасенолисни јавор или негундовац), *Amorpha fruticosa* (багремац), *Robinia pseudoacacia* (багрем), *Ailanthus altissima* (кисело дрво), *Fraxinus americana* (амерички јасен), *Fraxinus pennsylvanica* (пенсилвански јасен), *Celtis occidentalis* (амерички копривић), *Ulmus pumila* (ситнолисни или сибирски брест), *Prunus padus* (сремза) и *Prunus serotina* (касна сремза), као и врсте које су детерминисане као алергене (тополе и сл.).
- 17) Уколико се током радова наиђе на геолошко-палеонтолошке или минералогско-петролошке објекте, за које се претпоставља да имају својство

природног добра, извођач радова је дужан да у року од осам дана обавести Министарство заштите животне средине, односно предузме све мере како се природно добро не би оштетило до доласка овлашћеног лица.

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

### Образложење

Завод за заштиту природе Србије примио је дана 07.09.2017. године захтев бр. 020-2163/1 Јавног предузећа „Путеви Србије“ из Београда за издавање услова заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута IV реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање).

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

Почетак деонице је раскрсница државног пута IV реда бр. 33 и Пријеве улице у Неготину, крај деонице је дефинисан непосредно пре граничног прелаза Мокрање.

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

На предметном подручју, на локалитету Кобишница забележени су типови станишта: шуме пољског јасена (*Fraxinus angustifolia*) (\*91E0) и планинске шуме букве (*Fagus toesiaca*) и граба (*Carpinus betulus*) (91W0), који према Правилнику о критеријумима за издавање типова станишта, о типовима станишта, осетљивим, угроженим, ретким и за заштиту приоритетним типовима станишта, спадају у тип фрагилних станишта услед слабе и споре обновљивости и услед осетљивости на деградацију, па су у складу са тим означена као станишта од посебног значаја за заштиту на територији Републике Србије.

Увидом у Централни регистар заштићених природних добара Србије и документацију Завода за заштиту природе Србије, а у складу са прописима који регулишу област заштите природе, утврђени су услови заштите природе из диспозитива овог Решења. При томе се имало у виду да се предметно подручје (траса пута) не налази унутар

заштићеног подручја за које је спроведен или покренут поступак заштите, нити у обухвату простора еколошке мреже.

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

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

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

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

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

ДИРЕКТОР  
Александар Драгићкић



Прилог:

- Картографски приказ положаја станица од посебног значаја за заштиту на територији Републике Србије у односу на деоницу државног пута III реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање) (1:75 000)

Достављено:

- ↳ Подносиоцу захтева
- Архиви x 2

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

11  
2018  
ДРЖАВНО ПРЕДУЗЕЋЕ "ПУТЕВИ СРБИЈЕ"  
Београд  
29-06-2018  
Београд, др Ивана Рибара бр. 91

Завод за заштиту природе Србије, Београд, Ул. др Ивана Рибара бр. 91, на основу члана 144. Закона о општем управном поступку („Службени гласник РС“, бр. 18/2016), а поступајући по предлогу број: 953-13043 од 08.06.2018. године ЈП „Путеви Србије“ из Београда, Бул. Краља Александра 282, за исправљање грешке у Решењу 03 бр. 020-2163/3 од 18.10.2017. године, дана 29.06. 2018. године под 03 бр. 020-1549/ 2 доноси

### РЕШЕЊЕ

1. У Решењу 03 бр. 020-2163/3 од 18.10.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута II реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање), исправља се грешка, и то:

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

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

2. У свему осталом предметно Решење остаје непромењено.

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

### Образложење

Завод за заштиту природе Србије примио је дана 11.06.2018. године захтев заведен под бр. 020-1549/1 ЈП „Путеви Србије“ из Београда за исправљање грешке у Решењу Завода 03 бр. 020-2163/3 од 18.10.2017. године о условима заштите природе за израду техничке документације пројекта Појачаног одржавања деонице државног пута II реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање). У току писања наведеног решења у тачки 1. подтачка б) диспозитива направљена је очигледна грешка прописивањем мера које се односе на обавезно прикупљање воде које настају спирањем са коловоза и оптерећене су уљима и другим нафтним дериватима и њихово пречишћавање изградњом таложника и сепаратора масти и уља, а пре испуштања у реципијент или канализацију.



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

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



Достављено:  
- Подносиоцу захтева  
- Архива х 2



AA

Република Србија

**ЗАВОД ЗА ЗАШТИТУ СПОМЕНИКА КУЛТУРЕ НИШ**

Ниш, Добричка 2, тел. 018/523-414, факс 018/523-412

E-mail: kontakt@zzsknis.rs

Број: 1106/2

Датум: 15.09.2017.

18301/22  
05-10-2017  
Датум  
БЕОГРАД

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

### РЕШЕЊЕ

О утврђивању услова за предузимање мера техничке заштите за израду техничке документације пројекта *Појачаног одржавања деонице државног пута 1Б реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање)*

I Мере техничке заштите: израда техничке документације пројекта *Појачаног одржавања деонице државног пута 1Б реда бр. 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање)*, може се предузети уз неозаставно поштовање следећих услова:

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

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

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

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

V Ово Решење важи годину дана.

VI Жалба на Решење не одлаже извршење.

### Образложење

ЈП "Путеви Србије" 11050 Београд Булевар краља Александра 282, Сектор за инвестиције, Београд, Влајковићева 19а, поднело је захтев наш бр. 1106/1 од 11.09.2017. године за добијање услова за израду **техничке документације пројекта 33 (стара ознака: магистрални пут М-24), деоница Неготин – граница СРБ/БУГ (Мокрање).**

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

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

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

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

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



В. Д. ДИРЕКТОРА ЗАВОДА,

Елена Васић Петровић

Доставити:

- Подносиоцу захтева
- Документацији

**APPENDIX 6 FINAL ENVIRONMENTAL APPROVAL**



Република Србија  
МИНИСТАРСТВО ЗАШТИТЕ  
ЖИВОТНЕ СРЕДИНЕ  
Број: 011-00-00188/2018-03  
Датум: 12.03.2018.  
Београд

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

**Предмет:** Допис у вези са захтевом

Министарству заштите животне средине обратили сте се Захтевом за давање мишљења о потреби израде студије о процени утицаја на животну средину пројекта појачаног одржавања и отклањања оштећења на државном путу IV-33 (стара ознака пута М-24), ЈИОТ 2; Неготин (Радујевац) – граница СРБ/БУГ (Мокрање), L=12,919 км), заведен под бројем 011-00-00188/2018-03 од 06.03.2018.

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

Пројекат подразумева грађевинско-путарске радове у оквиру трасе већ постојећег државног пута који представља део саобраћајне везе између државне границе са Бугарском (гранични прелаз “Брегово”) и државног пута IV бр. 35, дужине 12,919 км.

Уз Захтев је приложена и додатна документација:

- Правилник о ургентном одржавању државног пута („Сл. гласник РС“ 74/2014 и 87/2014), којим су дефинисане врсте радова, технички услови и начин извођења радова;
- Правилник о периодичном одржавању државног пута ( на основу чл. 61 ст. 1 Закона о путевима, Сл. гласник РС“ 101/05, 123/07, 101/11, 93/12 и 104/13)
- Кратак опис пројекта уз графички прилог;
- Решење бр. 020-21633/3 од 18.10.2017. које је издао Завод за заштиту природе Србије;
- Решење бр. 1106/2 од 15.09.2017. које је издао Завод за заштиту споменика културе Ниш;

- Пуномоћје бр. 953-3673 од 12.02.2018. за групу пројекатана: Projekt Biro Utiber doo, Utiber LTD, Pampro team doo, DUODEC doo, VIA Inženjering doo, које је издало ЈП ПУТЕВИ СРБИЈЕ;

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

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



**Доставити:**

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