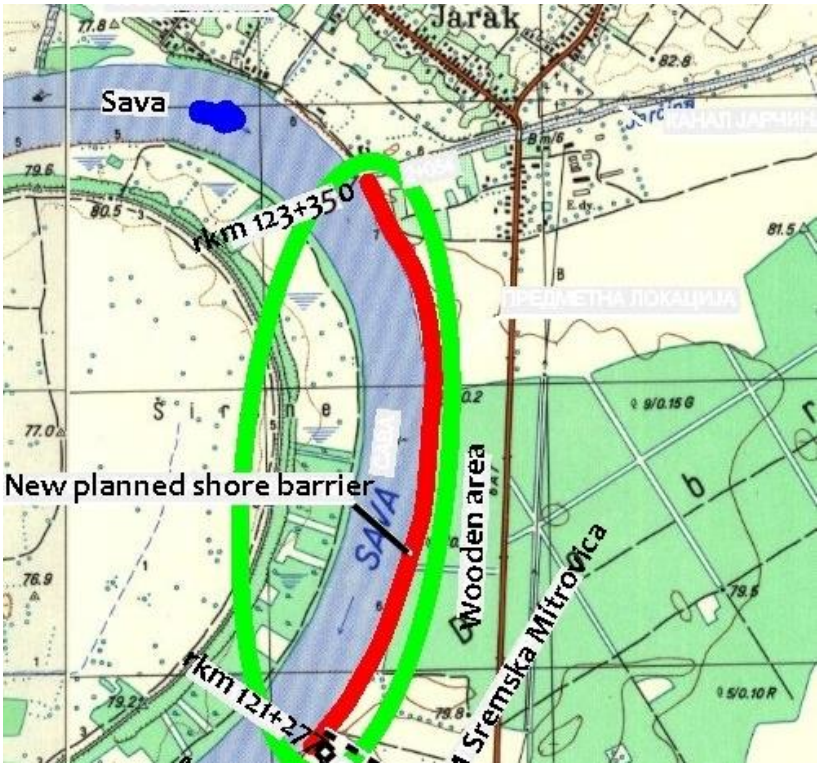
Republic of Serbia
Ministry of Agriculture, Forestry
and Water Management
Nemanjina 22-26, 11000 Belgrade

SAVA AND DRINA RIVER CORRIDORS INTEGRATED DEVELOPMENT PROGRAM (SDIP)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

for

The rehabilitation of the left bank of the Sava River at Jarak rkm 121+277 to rkm 123+350 (L = 2.073 km)



B E L G R A D E, January 2022

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Abbreviations

DWM	Directorate for Water Management
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
ESMP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework Document
ESS	Environmental and Social Standards
ESSS	Environmental and Social Safeguard Specialist
SDIP	Sava and Drina River Corridors Integrated Development Program
GEHSG	IFC General Environmental, Health and Sfatey Guildines
IFC	International Financial Corporation
MAFWM	Ministry of Agriculture, Forestry and Water Management
MCTI	Ministry of Construction, Transport and Infrastructure
MEP	Ministry of Environmental Protection
INP	Institute for Nature Protection
IPCM	Institute for Protection of Cultural Monuments
ISRBC	International Sava River Basin Commission
PMU	Project Implementation Unit
PPE	Personal Protective Equipment
PSC	Project Supervision Consultant
PWMC	Public Water Management Company
RDNEIA	Request for decision about the need for EIA
RoS	Republic of Serbia
SSIP	Site Specific Implementation Plan
WB	The World Bank Group

INTRODUCTION

A pivotal feature of the Western Balkans region is the Sava River Basin, one of Europe's largest transboundary basins. It covers over one third of the Western Balkans in area and population and connects five of the eight Western Balkan countries (Slovenia, Croatia, BiH, Serbia, and Montenegro). The Drina is the Sava's largest tributary, draining over 20,000 km^2 of mountainous area. The economy and jobs in the region depend heavily on these shared water resources, to transport goods, generate energy, grow food and fibers, sustain biodiversity, as well as provide for leisure and eco-tourism activities.

This document presents the Environmental and Social Management Plan (ESMP), which has been prepared to ensure that the proposed Sava and Drina River Corridors Integrated Development Program (SDIP) is implemented in accordance with the World Bank Environmental and Social Standards (ESS) and local legislation related to environmental protection and social safeguarding. The ESMP is prepared based on the procedures laid out in the Environmental and Social Management Framework (ESMF) as prepared for the SDIP. The main purpose of this ESMP is to serve as a valuable tool for identifying possible key environmental and social impacts that will result from the project and proposing mitigation measures to address the most significant impacts. The ESMP also shows the responsibilities of different parties involved in the project implementation. Although the overall SDIP project has been classified as High risk according to the World Bank ESF, the proposed sub-project is classified as Moderate. The works envisaged by the technical documentation include routine excavation activities, with limited dredging, and require very minor acquisition of private land and no physical displacement nor livelihood impacts. Mitigation measures, both environmental and social adequately respond to the identified impacts, leaving residual impacts at an almost negligible scale.

Environmental and Social Standards relevant for the Jarak Project:

	E & S Standards	**Relevance**
ESS1	Assessment and Management of Environmental and Social Risks and Impacts	**Relevant**
ESS2	Labor and Working Conditions	**Relevant**
ESS3	Resource Efficiency and Pollution Prevention and Management	**Relevant**
ESS4	Community Health and Safety	**Relevant**
ESS5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	**Relevant**
ESS6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	**Relevant**
ESS7	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Relevant
ESS8	Cultural Heritage	**Relevant**
ESS9	Financial Intermediaries	Not Relevant
ESS10	Stakeholder Engagement and Information Disclosure	**Relevant**
OP 7.50	Projects on International Waterways	**Relevant**

1. SAVA AND DRINA RIVER CORRIDORS INTEGRATED DEVELOPMENT PROGRAM - DESCRIPTION

1.1. Background

The Sava and Drina have a proclivity for both dry spells and devastating floods—most recently occurring in 2010 and 2014. The 2014 Sava flood—the largest flood in a century—caused 79 casualties and a damage of €1.5 billion in Serbia (4.7% of GDP), €2.0 billion in Bosnia and Herzegovina (15% of GDP) and €300 million in Croatia （0.5% of GDP). In 2010 the Drina was flooded extensively—partly due to spilling hydropower reservoirs—and saw its highest levels in 100 years. Flash floods destroyed houses, bridges and sections of roads, while rising water levels resulted in flooding of both urban and rural areas.

The Sava Drina River Corridors Integrated Development Project main focus is to improve flood protection, and transboundary water resources management in selected catchment areas of the Sava and Drina river corridors, with the higher level objective being to enhance regional economic integration and growth through improved flood protection, waterway navigability and freight transport connectivity, and transboundary water management along the Sava and Drina Corridor.

This project will implement sub-projects with high implementation readiness and relevance to the program objectives, with detail designs and tender documents likely ready by Effectiveness in Montenegro, BiH (Brcko District), and Serbia, while simultaneously preparing sub-projects that will be implemented during the second phase of the Regional Program. The project consists of four components as described below:

Component 1: Integrated Management and Development of the Sava River Corridor;
Component 2: Integrated Management and Development of the Drina River Corridor;
Component 3: Project preparation and management;
Component 4: Regional activities.

1.2. Jarak Project Description

Flood Protection of Jarak area includes rehabilitation of the left bank of Sava River near the villages Jarak and Hrtkovci, municipalities Sremska Mitrovica and Ruma, in total length of 2.073 km, starting from rkm 121+277 to the ending chainage of rkm 123+350.

The left bank of the Sava from Hrtkovci to Jarak, on a stretch of about 3.5 kilometers, is in a concave curve. Over time, the Sava eroded the bank, and Sava River moved towards its left bank. On this section from rkm 120+347 to rkm 123+350, the defense against floods consisted of a high river bank that protected the settlements of Hrtkovci and Jarak and arable agricultural land in the hinterland.

Throughout time Sava River has eroded the high river bank, especially during high water periods when erosion processes are intensified and the river bank is constantly being destroyed, and the entire riverbed moves towards the left river bank and farmlands in the vicinity of Jarak village.

During the flood defense in 2014, the high river bank overflowed, so another defense line had to be built from Hrtkovci to Jarak. After the flood wave, technical documentation was prepared, and during 2017/2018 an embankment was built that protects the area from the high waters of the Sava River. The embankment extends parallel to the river bank from rkm 120+347 to rkm 123+350.

On the previous section, i.e. on the stretch of the Sava from rkm 120+347 to rkm 121+277 in the zone of Hrtkovci, works on stabilization of the river bank have already been completed. On the remaining part of the left bank of the Sava in the ditch zone from rkm 121+277 to rkm 123+350,. it is necessary to protect the river bank in order to stop erosion processes, stabilize the river bank, and build a defensive line to maintain its functional security.

The project defines technical solutions and necessary works on the rehabilitation of the left bank of the Sava River from rkm 121 +277 to rkm 123+350 in order to prevent further collapse of the left bank due to river flow in the curve and weak resistance of the left bank.

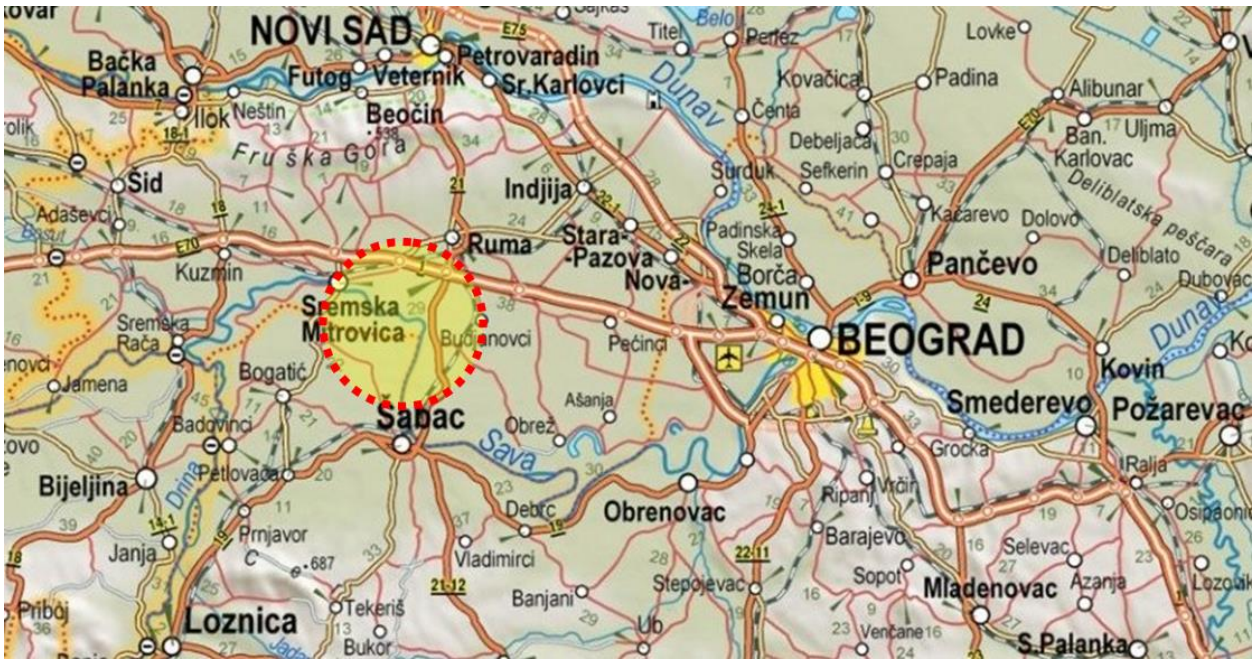


Figure 1: Project location, Jarak region, Sava River

The subject section is 2023 m long, has a poor soil composition and is exposed to the flow of the Sava River. All this causes constant collapse of the river bank and movement of the left bank towards the settlement, arable and forest areas. The erosion process itself affects both the river bank and the riverbed.

The aim of the project is the rehabilitation of the left bank of the Sava River in the zone of the settlement Jarak, from rkm 121+277 to rkm 123+350, in order to stop erosion processes, stabilize the bank, and build the defense line to maintain its functional security.

Design is already completed and Construction permit is obtained on 18 Dec 2021 from the City of Sremska Mitrovica and on 01 Nov 2021 from the City of Ruma (Annex 3).

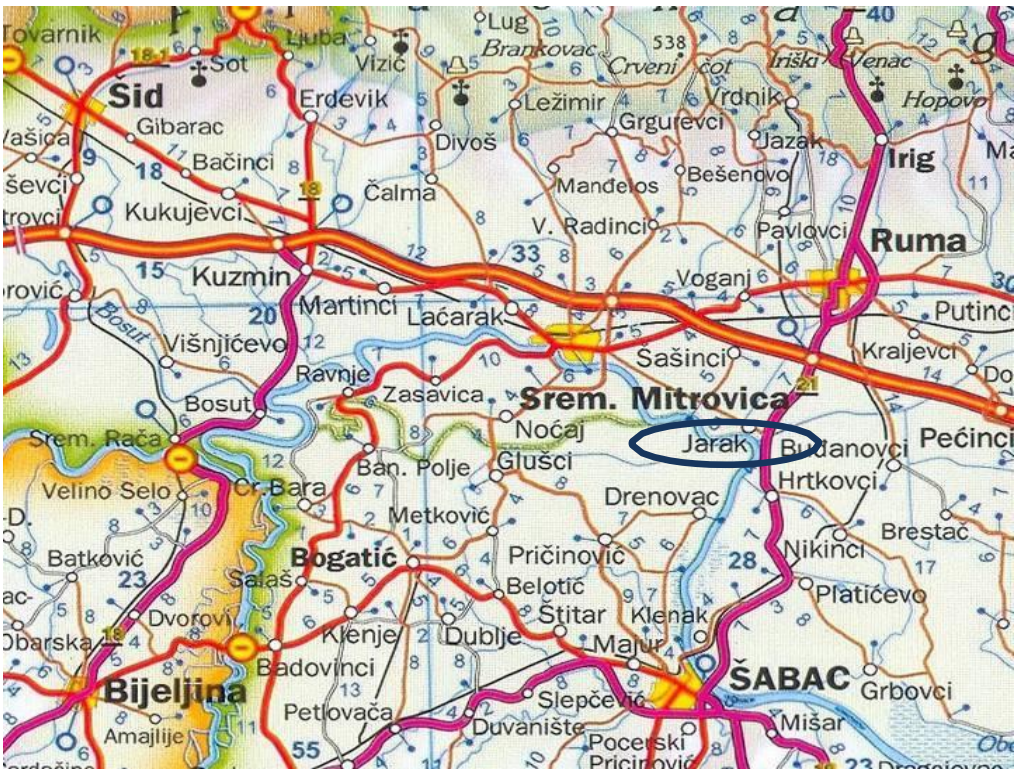


Figure 2: Project location, Jarak village and Sava River

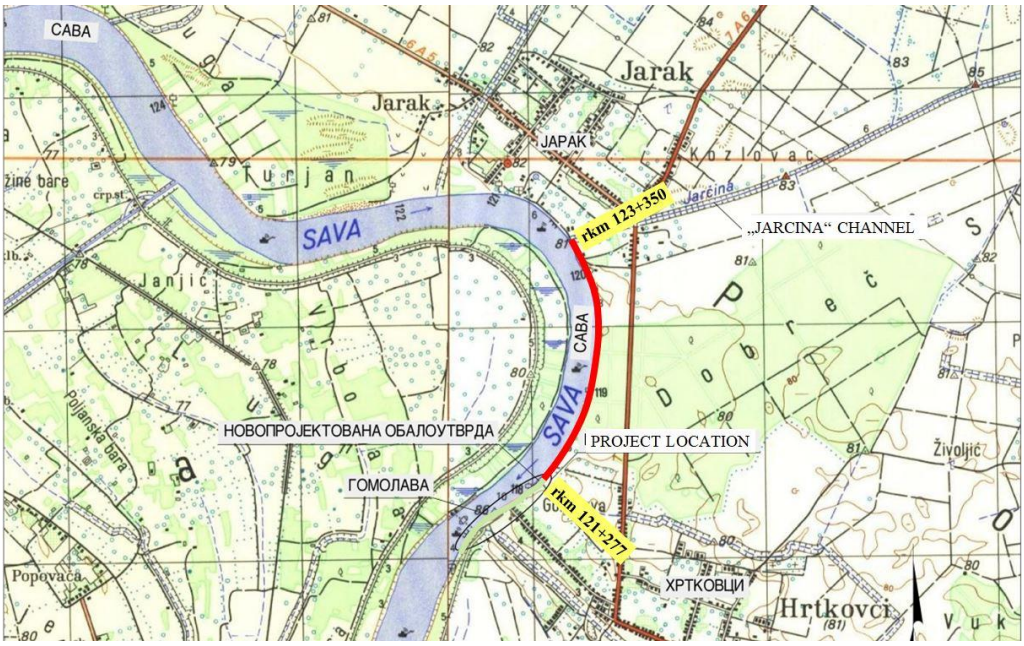


Figure 3: Project micro location, Jarak

Besides the undisputable hydraulically and hydrotechnical benefits, regulation of the left river bank of the Sava River will greatly improve the quality of life of the local community. The project will allow for a creation of a pleasant ambient in place of the currently eroded riverside and will improve the general hygiene on project section.

Proposed sub-projects activities will ensure rehabilitation of the left bank of the Sava from rkm 121 + 277 to rkm 123 + 350 near Jarak, in order to repair the damage to the bank and permanently stop the process of erosion of the bank and riverbed on the section in question.

1.3. Baseline conditions assessed during route survey

The Sava River is an international waterway. For river boats, the Sava is navigable from Sisak (km 583) to Belgrade (km 0.00). The total length of the Sava River through Serbia is 210 km.

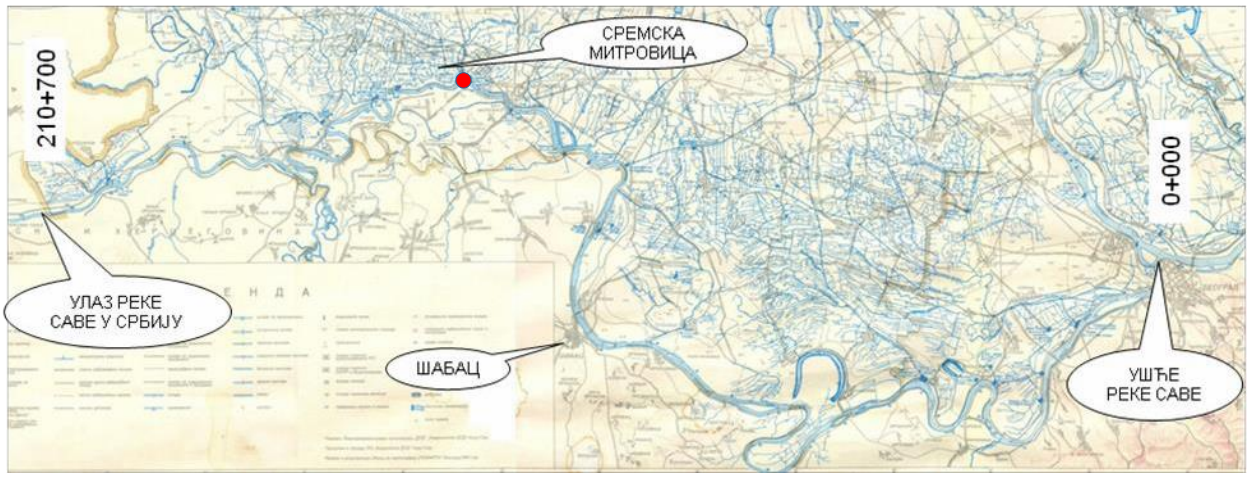


Figure 4: Sava River in Serbia and sub-project location (red spot)

The entire ambience around the Sava is variable from the Slavonian and Srem plains to the river gorges in Slovenia. The river banks of the Sava is rich in historical heritage, civilizations and cultures that have emerged and left numerous traces.

Some of those smaller places along which the Sava River passes are the settlements of Jarak and Hrtkovci. Jarak is a village in the municipality of Sremska Mitrovica in the Srem district of the Republic of Serbia, while Hrtkovci is a village in the municipality of Ruma. According to the 2011 census report, there were 2039 inhabitants. The rural area between the two settlements, which is crossed by an asphalt road and forms the western border, covers an area of about 122 ha. This area consists of agricultural and forest areas (Dobrec forest south of Jarak). The Jarcina channel flows through Jarak and flows into the Sava river.

Figure 5: Sava at sub-project location near Jarak

Over time, the river eroded the high bank. During the passage of large waters, erosion processes intensify, suffusion occurs, the bank collapses and the course of the river moves to the left bank. Along the river bank there is arable land, settlement Jarak, forest Dobrec, R.T.C. "Luka Leget" AD and gravel pit.

Figure 6: Sava River bank at Jarak

The project section is 2073 m long and has a poor soil composition and is exposed to a constant influence of flowing from the Sava River. Above mentioned properties cause continuous destruction of the river bank and movement of the left riverside towards the Jarak settlement and neighboring farmlands. The erosion process influences the river bank and the riverbed. Destruction of the left river bank has caused the local access road to advance further into the riverbed. The river bank along the section is nearly vertical or with steep slopes. Slope stability along the riverside is constantly endangered, and the erosion process is unceasing. Along the riverside on some less steep slopes there is some vegetation, both short and tall.

Due to erosion, the left bank of Sava River is destroyed and the riverbed had moved towards the left river bank near agricultural lands and the village Jarak (Figures 7, 13 and 15).

Some flood protection works, funded from the State Budget, have already been executed, from confluence of Vranj channel into Sava River on rkm 120+347 to the beginning of the subject sub-project section on rkm 121+277).

The project section is uninhabited. Nearest residential building belonging is located outside of project area at the chainage rkm 120+867. The building is located just 20m from Sava River's eroded river bank and the agricultural land in its vicinity is being gradually destroyed by the continuous erosion of the river bank. Characteristics of the surrounding land are typical for plaines, there is a slight north – south inclination. Geologically project section is defined as a river terrace with gravel and sand, facies with sand, clay and loess sediments.

Watercourses present at the project section are Sava River and Vranj channel. Project location is on an alluvial terrace of Sava River, and possess typical, for alluvial terraces, hydrological characteristics. Underground water levels are high. Maximum river levels are observed in spring (Apr – May) and in autumn (Nov – Dec) , whereas minimum river water levels are marked in summer (July – August) and in winter (Jan – Feb). Average annual river flow is 1561 m^3/s.

Figure 7: Current condition of the left river bank of Sava River at project location

The village area stretch between Jarak and Hrtkovci is a typical plain area and is interconnected by a main asphalt road.

Village area between Jarak and Hrtkovci lies on the Srem light terrace. The heights of the light terrace are slightly decreasing from north to south, from 81 to 78 m above sea level. The surface of the terrace is slightly undulating and old depressions can be seen on it. The Sava River flows along the settlement of Jarak, which is the western border of the village area. Of the hydro-technical facilities, the Jarcina channel is important, which flows into the Sava River.

The high river bank protects rivers, settlements and the village area from high water levels. The water levels of the Sava River, which appeared during the defense against the floods in 2014, exceeded the high bank and endangered the settlements and agricultural and forest areas in the immediate vicinity of the Sava River. After the passage of the flood wave, technical documentation was prepared, and during 2017/2018. year, a defensive line was built (a combination of an embankment and a protective defensive wall) that protects the area from the high waters of the Sava River. The defensive line stretches parallel to the river bank from rkm 120 + 347 to rkm 123 + 350.

On the part of the left bank of the Sava River in the zone of Jarak from rkm 121 + 277 to rkm 123 + 350, it is necessary to protect the bank in order to stop erosion processes, stabilize the bank, and maintain the built defensive line.

The following significant objects are located along the subject section:

- Built defensive line (combination of embankment and protective wall) at rkm 121 + 277 - 123 + 350
- Forest area at rkm 121 + 600 - 122 + 550
- Pipe culvert at rkm 122 + 850
- Pipe culvert at rkm 122 + 485
- Port of “Leget” with a berth for boats at rkm 122 + 550 - 122 + 750
- Gravel pit for port of “Leget” at rkm 122 + 750 - 122 + 850
- Gravel pit at rkm 123 + 000 - 123 + 279
- “Jarcina” channel at rkm 123 + 305

Figure 8: Existing embankment and wall

Figure 9: defense wall

Figure 10: Existing embankment

Figure 11: defense wall

The following facts were noticed during the site visit:

The river bank along the entire section is almost vertical or with steep slopes. Slope stability is constantly compromised. The erosion of the river bank is continuous. There is vegetation along the river bank, high and low, which can be seen in the following figures. In the hinterland of the section, there is a built defensive line from rkm 121 + 277 to rkm 123 + 350. The defensive line consists of a combination of an embankment with a defensive wall.

Figure 12: defense line

Figure 13: vegetation on the slope

From the chainage rkm 121 + 600 to rkm 122 + 550 there is a forest area. It is located in a protected area, just behind the built embankment. The forest area is overgrown with high and low vegetation and as such is extremely inaccessible. The forest area is located on the plot under the jurisdiction of the PE "Vojvodina Sume".

On the stretch where the forest area stretches at the station rkm 122 + 230, there was a local great erosion of the river bank, which threatened to endanger the newly built embankment. On that stretch, the river bank was rehabilitated or stabilized with a stone layer (Figure 15).

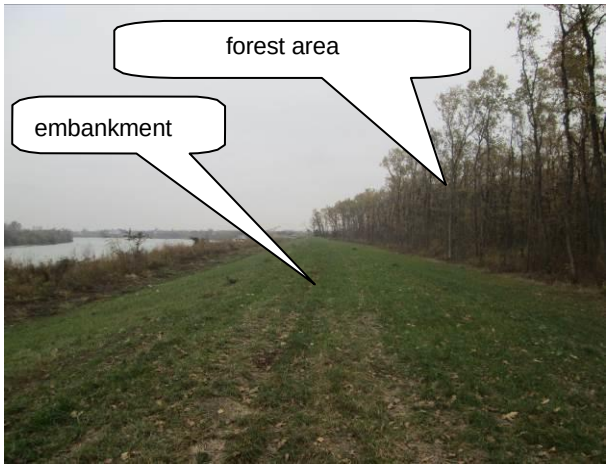


Figure 14: forest area and existing embankment

Figure 15: eroded slope at Jarak

At the very end of the newly built embankment, at the station rkm 122 + 485, there is a water culvert with a “flap gate”. The culvert is a circular cross-section Ø800. There is a frog cover on the spout, which prevents water from entering the hinterland in case of high waters. In the continuation of the culvert, a drainage channel was built, which was lined with crushed stone in cement mortar.

Figure 16: water pipe culvert

Figure 17: water pipe culvert

From the end of the forest area, from the chainage rkm 122 + 550 to rkm 122 + 750 there is a dock for ships of the port of “Leget”. The dock is owned by the "Port of Leget". In the hinterland of the dock for ships, there is a built defensive wall, which protects the area from the great waters of the Sava River. The battles to which the ships were moored can be seen along the river bank.

Figure 18: port of “Leget”

Right next to the port of “Leget” is the first gravel pit with a conveyor belt for transferring material from the vessel to the river bank. The gravel pit extends from rkm 122 + 750 to rkm 122 + 850. The gravel pit is owned by the Port of “Leget”. It has its own part for material separation.

Figure 19: first gravel pit

At the first gravel pit, at rkm 122 + 850, there is one culvert. The culvert extends from the location of the separation of materials, where there is a sedimentation tank from which water is brought to the inflow into the Sava River via a concrete pipe. The pipe culvert is Ø800 in diameter. Along with the culvert, a raft was made on which a pump is placed, which has a suction basket, which is constantly in the water and which drains the water to the gravel pit. Along the pipe culvert from the raft, a polyethylene pipe was placed on the slope, which connects to the steel pipe at the very top of the terrain and goes towards the gravel pit.

In the part from rkm 123 + 000 to rkm 123 + 279 there is another gravel pit. It does not have a transshipment facility on the river bank itself, but there are battles along the river bank. This gravel pit is also owned by "Luke Leget". There is a defensive wall in the hinterland.

Figure 20: second gravel pit

At the very end of the section, there is the “Jarcina” channel at rkm 123 + 305. The channel is completely overgrown with vegetation, so its contours cannot even be seen.

1.3.1. A brief review of the previous, already completed section

After the 2014 floods, the technical documentation for the rehabilitation of the Sava river bank in the "Gomolava" zone from rkm 120 + 347 to rkm 121 + 277 was prepared by "Hidrozavod" in 2016, and works were performed and completed during 2017 and 2018. The technical solution for the renovation was reflected in the formation of a sidewalk at an elevation of 75.00 m above sea level, 2.0 m wide, from a "Reno" mattress. A combination of geotextiles and geocovers was placed under the 5m long embankment. A foot is formed at the foot of the slope of the river bank, which prevents the stone from sliding down the slope. The foot is made of stone fraction 150-450mm. Under the foot and 5.0 m towards the river, a 30 cm thick carpet of 50-150 mm stone fraction is spread. The slope of the river bank was determined from the foot to the level of medium water, by pouring stone in two layers. The lower layer of stone fraction 50-150mm covered the slope of the natural terrain, filled the caverns and softened the slopes so that the slope was 1: 1.5 or milder. The minimum thickness of this layer is 30 cm.

Above the embankment, the slope of the river bank was made in an inclination of 1: 1.5 until the exit to the river bank. The slope is covered with geocover. At the top of the slope there is an anchor trench, in which the geocovers were anchored. A layer of 3-5 cm of humus material with mixed seeds of grass and fertilizers is spread under the geocover on the slope and at the top of the river bank, in this way a grass cover is formed whose root grows through the geocover.

Figure 21: Previous section – already constructed river bank

Figure 22: Previous section at Hrtkovci, archaeological exploration completed during 1991

Recognised archaeological site “Gomolava” is placed along the Sava River, on previously completed section from the end of Vuk Karadzic Street (rkm 120+847) towards northeast in a length of 340 m (rkm 121+207) with a width of 25-40 m. Archaeological locality has been explored in spring of 1991, when protective explorations have been completed (Figure 23). Latest protective archaeological exploration took place in 2017.

1.3.2. Air and Water Quality

According to the chemical analysis of the Sava River by the Public Health Administration of Sremska Mitrovica, downstream from the project zone the water quality is of the II category.

Sampling and analysis of physicochemical and microbiological parameters of the Sava River meets the requirements of the Regulation on limit values of pollutants in surface waters[1]. The river may generally be used for swimming and recreation, water sports, fishing or with usual water treatment methods even as drinking water. The zero monitoring of the physicochemical and microbiological parameters in the area of the Sub-Project will be conducted prior to start of works by the contractor in line with the monitoring plan. Contractor will provide the results of “zero monitoring” prior to the start of the works, during the mobilization stage.

City of Sremska Mitrovica is included in the National Network of Automatic Stations for Air Quality Monitoring. Although the air quality measuring station is located within the urbanised section of the city, approximately 20 km away from the project zone, the results indicate that the annual air quality corresponds to category I - clean or slightly polluted air where the limit values for any pollutants have not been exceeded. Sremska Mitrovica

Watercourses present at the project section are Sava River and Jarcina channel. Project location is on an alluvial terrace of Sava River, and possessess typical, for alluvial terraces, hydrological characteristics. Underground water levels are high. Maximum river levels are observed in spring (Apr – May) and in autumn (Nov – Dec) , whereas minimum river water levels are marked in summer (July – August) and in winter (Jan – Feb). Average annual river flow is 1561 m3/s. More detailed data on river flows are provided in Annex 2 Part C – Preconditions of Hydrometerological Service of Serbia.

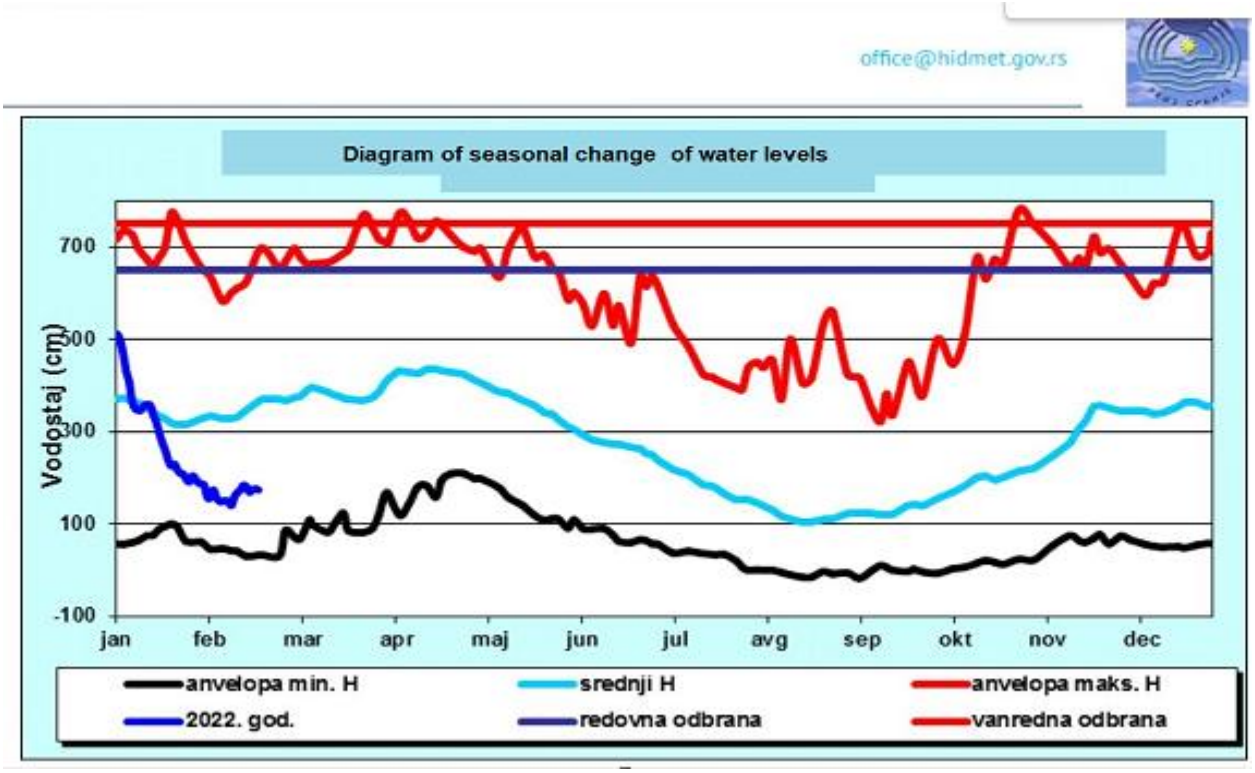


Figure 23: Sava river seasonal change of water level

[1] Decree on limit values of pollutants in surface water and groundwater and sediment and deadlines for their attainment (Government of the RoS, nr. 110-3320/2012-1 dated 10 May 2012)

1.3.3. Population

Jarak is a village in Serbia. It is situated in the Sremska Mitrovica municipality, Srem County, Vojvodina province. It is 12,6 km away from Ruma and 14,3 km away from Sremska Mitovica. According to the 2002 census Jarak have a population of 2235. The settlement is located along the left river bank of the Sava River.

Hrtkovci is a settlement located in Ruma municipality, inside Srem County in the Republic of Serbia. It is 16 km away from the city of Ruma. According to the 2011 census Hrtkovci have a population of 3036. The settlement is located along the left river bank of the Sava River.

1.3.4. Zone of works and its location in respect to natural and cultural protected areas

Immediately alongside the work zone flows Sava River – an international ecological corridor established by the regional Spatial Plan of the Autonomous Province of Vojvodina and by the Regulation on ecological networks (Official Gazette of the Republic of Serbia 102/10)

At the project location at a distance of around 20-30m, there is a habitat of protected and heavily protected plant species „Dobrec“ which belong to the category of hygrophilous forests and bushes. Inside the wider Sub-Project area(20 km) 2 protected natural areas. The closest protected natural area is a monument of nature – Morus tree trunk inside the Nocaj farm (yellow circle no. 193 on Figure 24), which is 14 km away from the project area. Second protected natural area is the nature reserve "Zasavica“ (white circle no. 57 on Figure 24) which is at least 16 km away from the project area. No impacts are anticipated in the protected areas.

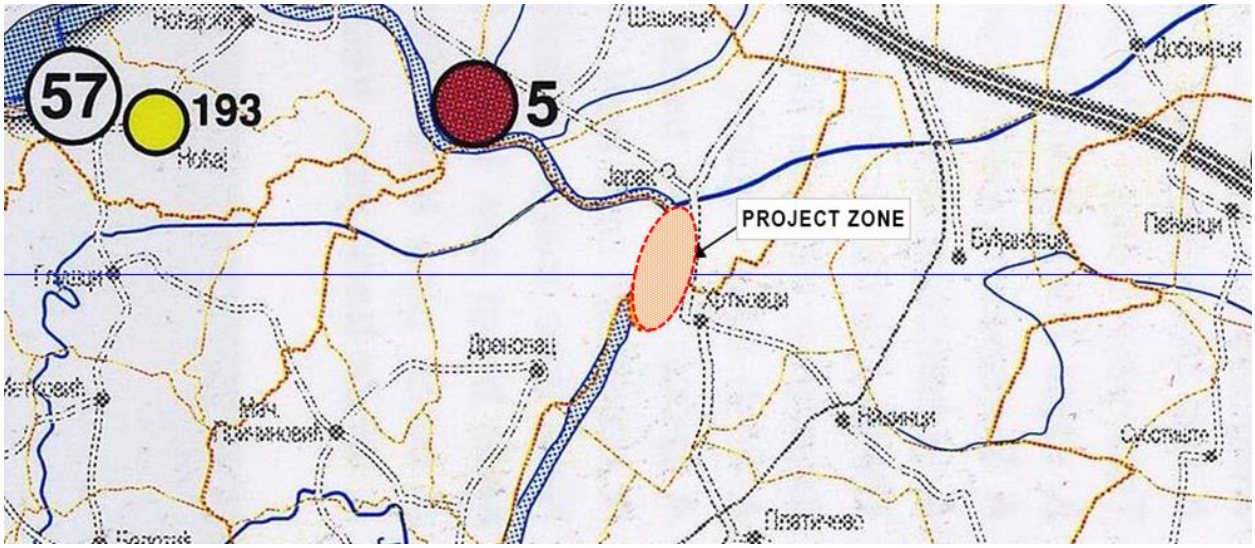


Figure 24: Location of project area in respect to protected areas.

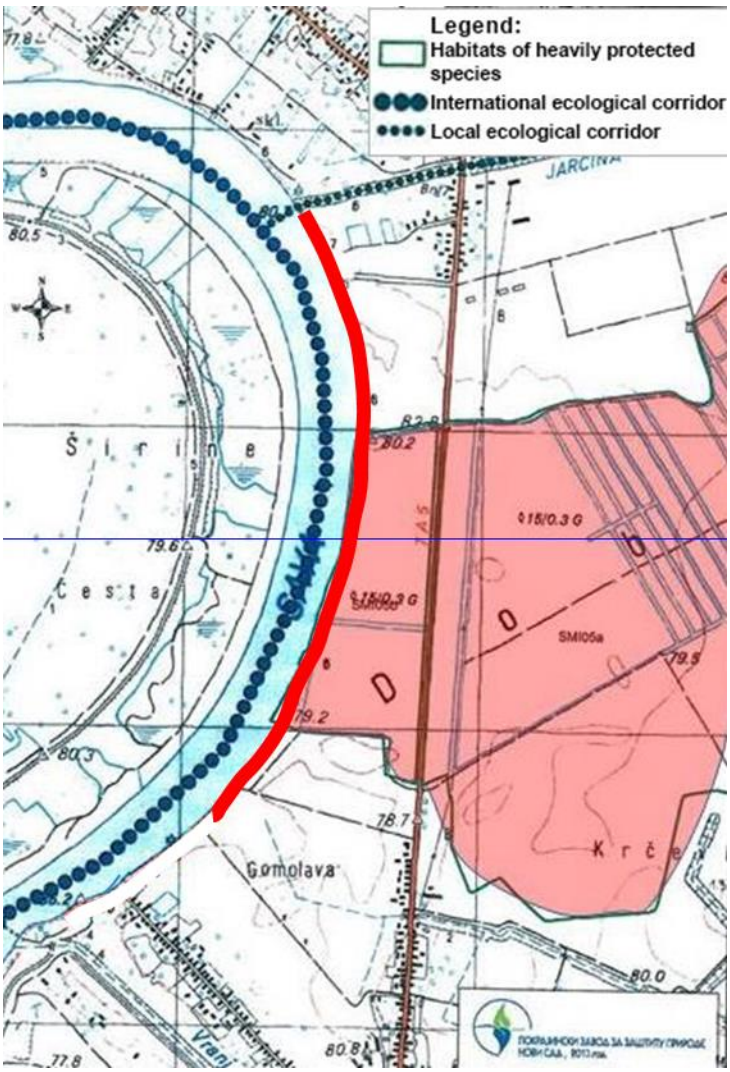


Figure 25: Location of the habitat of protected and heavily protected species „Dobrec“

1.3.5. Sensitive receptors surrounding the project section:

Adjecent to the project are the archaeological site „Gomolava‘‘ from rkm 120+567 to 120+707 („tel“) is present. Works on protective and reconasaince excavation works have been completed. At the project location at a distance of around 20-30m, there is a habitat of protected and heavily protected plant species „Dobrec“ which belong to the category of hygrophilous forests and bushes.

1.3.6. Characterization of sections of the Sava River based on fish community structure

Sampling was undertaken, with the same fishing gear and along the Sava River, from its source to its confluence, in September 2014 and September 2015. In total, 44 fish species were identified, of which 37 were native species and 7 were alien. Fish samples revealed independence in terms of both species' composition and their abundance under different hydrological conditions. During flooding and high-water levels in 2014, pelagic fish species were sampled in greater proportion than at lower water levels in 2015 when benthic fish species were more abundant. The flood wave in 2014 was accompanied by catch of common carp, Cyprinus carpio, a typical lower rhithron fish species in the upper course, and of tench, Tinca tinca, a typical potamon fish species of backwaters, in the main channel of the lower Sava River. One specimen of bighead goby, Ponticola kessleri, which is common in the potamon fish community, was caught during the 2015 sampling close to the boundary between the upper and middle sections of the Sava. Finally, these results indicate that pelagic fish species are more resistant to the stressful effect of flooding than benthic species, and that the structure of fish communities is influenced/affected by flooding as a short-term stressor. The progressively increasing number of alien fish species downstream in the

Sava River point to the effects of long-term human-induced stressors in the area. alien fish species downstream in the Sava River point to the effects of long-term human-induced stressors in the area[2].

1.3.7. Sediment data

Suspended sediment measurements are available for stations Sremska Mitrovica and Beograd on monthly and yearly basis. Quantity of monthly and annual suspended load is derived from the correlation with the average flow rate. Regular sediment sampling is non-existing. Although the sediment monitoring is still present in the Program of the Republic hydrometeorological service of Serbia (RHMSS), it is not re-established because the instruments and methodology should be updated. On the Sava River RHMSS conducted suspended sediment monitoring at Sremska Mitrovica in period 1958-1980, Šabac in period 1958-2002 and Beograd in period 1958-1998. Currently, the Institute Jaroslav Černi (IJC) is monitoring the sedimentation of the Iron Gate 1 reservoir, including the sediment-related processes on its part on the Sava River, between its mouth to Danube and Šabac (100 km). Collection of water and sediment samples is done at Sremska Mitrovica and Beograd, on a daily basis, while complete field measurements of water and sediment parameters are performed periodically (1-3 times a year), to identify the water flow and sediment characteristics at various points, verticals and across the monitoring profile.

1.3.8. Climate

Sremska Mitrovica has an oceanic climate (Köppen climate classification: Cfb) bordering very closely on a humid continental climate (Köppen climate classification: Dfb) as well as a humid subtropical climate (Köppen climate classification: Cfa)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	18.8 (65.8)	23.7 (74.7)	28.9 (84.0)	31.4 (88.5)	34.8 (94.6)	36.8 (98.2)	40.7 (105.3)	39.4 (102.9)	37.6 (99.7)	30.2 (86.4)	25.0 (77.0)	22.0 (71.6)	40.7 (105.3)
Average high °C (°F)	3.6 (38.5)	6.5 (43.7)	12.5 (54.5)	18.0 (64.4)	23.4 (74.1)	26.1 (79.0)	28.3 (82.9)	28.4 (83.1)	23.7 (74.7)	18.3 (64.9)	10.5 (50.9)	4.8 (40.6)	17.0 (62.6)
Daily mean °C (°F)	0.1 (32.2)	1.6 (34.9)	6.4 (43.5)	11.8 (53.2)	17.2 (63.0)	19.9 (67.8)	21.5 (70.7)	21.2 (70.2)	16.6 (61.9)	11.7 (53.1)	5.8 (42.4)	1.4 (34.5)	11.3 (52.3)
Average low °C (°F)	−3.1 (26.4)	−2.5 (27.5)	1.2 (34.2)	5.9 (42.6)	10.9 (51.6)	13.7 (56.7)	15.0 (59.0)	14.8 (58.6)	10.9 (51.6)	6.7 (44.1)	2.2 (36.0)	−1.6 (29.1)	6.2 (43.2)
Record low °C (°F)	−29.5 (−21.1)	−22.5 (−8.5)	−17.3 (0.9)	−7.8 (18.0)	−0.3 (31.5)	3.0 (37.4)	6.4 (43.5)	5.8 (42.4)	−2.0 (28.4)	−6.0 (21.2)	−13.5 (7.7)	−21.3 (−6.3)	−29.5 (−21.1)
Average precipitation mm (inches)	37.9 (1.49)	29.2 (1.15)	40.4 (1.59)	48.4 (1.91)	56.2 (2.21)	84.4 (3.32)	61.6 (2.43)	52.8 (2.08)	50.3 (1.98)	54.6 (2.15)	52.8 (2.08)	45.6 (1.80)	614.2 (24.18)
Average precipitation days (≥ 0.1 mm)	12	11	11	12	12	12	10	9	10	9	12	13	133
Average snowy days	7	7	3	1	0	0	0	0	0	0	2	6	26
Average relative humidity (%)	87	81	73	69	68	71	71	71	75	78	85	88	76
Mean monthly sunshine hours	62.5	104.3	156.6	189.2	250.6	264.0	292.7	279.8	190.0	153.2	89.5	48.7	2,081.1

Source: Republic Hydrometeorological Service of Serbia[9]

Figure 26: Climate data for Sremska Mitrovica

1.4. Description of subproject's construction works and adopted technical solutions

The conceptual design determines the technical solutions and necessary works for the rehabilitation of the left bank of the Sava River from rkm 121 +277 to rkm 123 + 350 in order to prevent further collapse of the left bank due to river flow in the curve and weak resistance of the left bank.

Rehabilitation of the river bank is reflected in the construction of the embankment on the slope of the river bank, above which the geocover is placed as protection of the upper slope on sections where the river bank itself is not close to the built defensive line or gabion construction where riverbank is close to the

[2] Characterization of sections of the Sava River based on fish community structure Predrag Simonović a, Marina Piria , Tea Zuliani , Marija Ilić , Nikola Marinković, Margareta Kračun-Kolarević , Momir Paunović

defensive line. in the length of 5 m, and the embankment is filled with stone in two layers. At the very bottom of the fortification, a stone foot is being built, which has the role of preventing the stone from falling on the slope. Behind the foot, a carpet in the length of 5.0 m is made according to the water flow.

Summary of construction works on realization of project Jarak

Along the subject section construction works to be executed consist of works on stabilization/rehabilitation of endangered section along the high river bank of Sava River, in a total length of 2073m, from rkm 121+277 to rkm 123+350.

River bank rehabilitation works consist of embankment construction at the riverside slope, above which geocover shall be placed to protect the upper slope, beneath the embankment geocover shall be placed as well in length of 5m, and at the level of medium waters two layers of stone lining shall be placed. At the bottom of the embankment a stone foot will be constructed as a mean to stop the slippage of stone lining placed on the slope. Behind the stone foot towards the river axis, a carpet shall be constructed, 5.0m in length.

For river flows of great depth, water, fortifications are built of stone, and the most important thing is to adopt the size of the stone, which will not move at high speed of the river.

By calculation according to the critical tangential stress method, it was obtained that it is necessary for the slope of the stone embankment to be 1: 1.5 and for the average size of the stone to be 0.15m.

Having in mind the difficult conditions for performing works in the river about 20 m deep, the impossibility of visual monitoring of the embankment, the water speed in the river of about 2.0 m / s, during installation it is uncertain whether the stone embankment covers the slope or carries it to an undesirable place. The heavier the stone, the less the river moves it from the place of descent.

Two layers of stone were adopted for the river bankal fortification. Both layers are from the most common construction fractions of stone for these works that are done in quarries.

The lower layer of stone fraction 50-150mm covers the slope of the natural terrain, fills the caverns and softens the slopes so that the slope is 1: 1.5 or softer. The minimum thickness of this layer is 30 cm.

The upper layer of stone with a fraction of 150-450 mm ensures that the river flow at high speeds does not take away the fortification.

The thickness of the layer was adopted according to the recommendations from the world literature to be equal to twice the size of the middle stone of the fraction, which in this case is 60 cm.

A regulation line at a medium water level of 75.00 m above sea level, on which the bank is located, has been adopted. The regulation line follows the river bank according to the transverse profiles recorded at a distance of 50m. In order to increase the stability of the slope of the river bank profile, the slope of the slope above the bank 1: 1.5 was adopted. It is expected that the works above the embankment will be done in the dry, and under the embankment under water.

During the adoption of the technical solution, the width of the inspection path was taken into account, the width of which should in exceptional cases be at least 5.0 m. In order to meet this criterion, the technical solution of the river bankal fortification had to be done in a combination of three types of solutions.

The solution envisaged for **type 1** is applied on sections where the width of the work-inspection track is wider than 5 m and it is not a problem not to meet the criterion obtained in the Opinion. In this type, the embankment, which is located at an altitude of 75.00 m above sea level, is being built in the excavation of the river bankal terrain on natural soil.

In **type 2**, the technical solution of the embankment was translationally moved towards the natural slope of the bank for the width of the embankment, in order to achieve a minimum of 5 m of working inspection path on these sections as well.

In the solution **type 3**, the river bank came very close to the defensive line, and if the first two types of technical solution are applied, a working-inspection path of at least 5 m cannot be achieved. In order to solve the problem of the slopes of the river bankal fortification on these sections, it is made of gabions, which are laid on the bank at the elevation of 75.00 m above sea level, whose width in this case is 3.0 m. The gabion structure is being built with an execution of 0.5 m all the way to the high terrain.

In all three types of solutions, it is planned to set the embankment at the level of 75.00 m above sea level (slightly above the middle water). In the first two types of solutions, the width of the embankment is 2.0 m, while in the third type of solution, its width is 3.0 m. The bank is set up for greater stability of the bank slope.

The sidewall is formed of a “Reno” mattress, measuring 4.0 * 2.0 * 0.3m. Reno mattresses are filled with stone fraction 80-150mm.

In the first two types of solutions, a slope of the fortification with a drop of 1: 1.5 is formed above the bank. The 2.0m long “Reno” mattress fits into the slope above the curb, and the 2.0m long forms the curb.

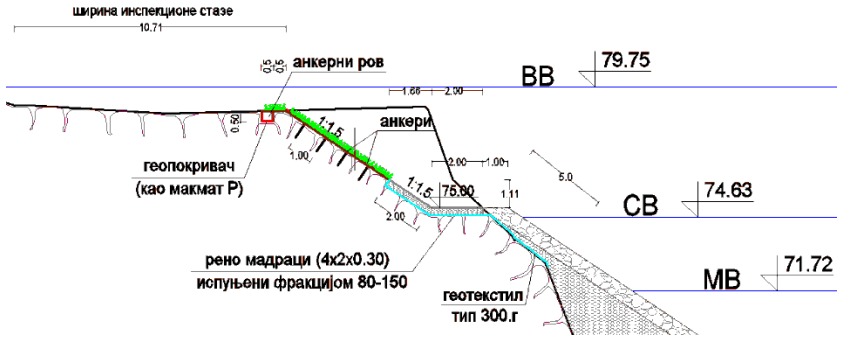


Figure 27: typical details of river bankal fortification - TYPE 1

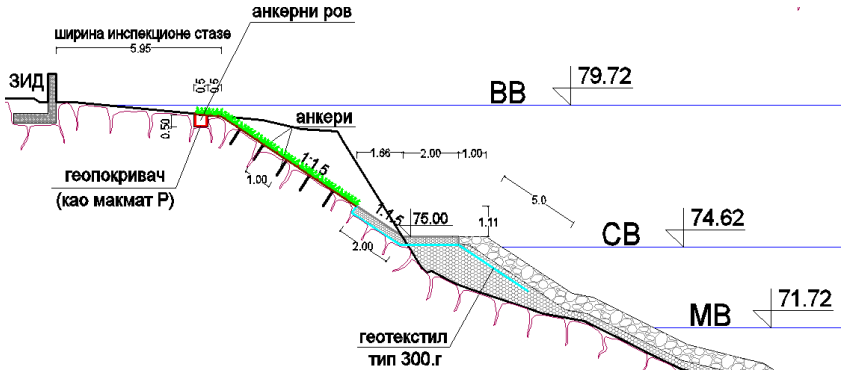


Figure 28: typical details of river bankal fortification - TYPE 2

Geotextile (type 300gr) is placed under the “Reno” mattress. Geotextiles are placed both under the “Reno” mattress and over the previously excavated and cleaned slope of the river bank in the length of 5.0 m in order to avoid leaching of the material.

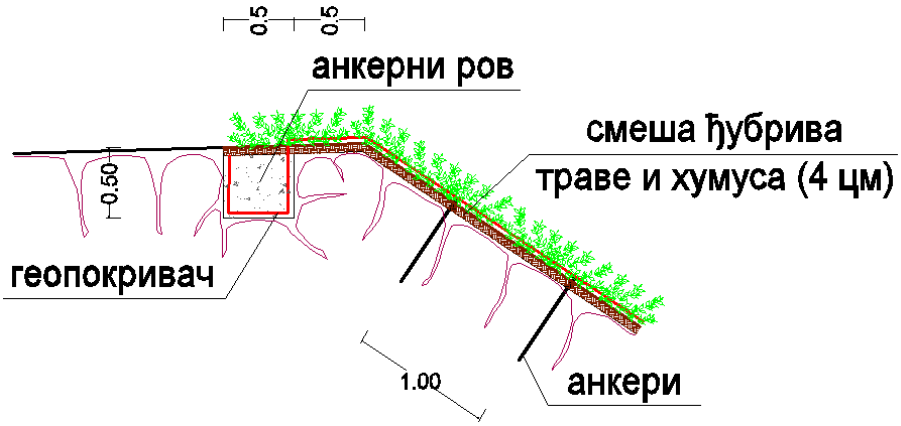


Figure 29: detail with geocover

The slope above the embankment is protected from the river flow by covering with a geocover, made of a polymer three-dimensional matrix, extruded on a steel hexagonal mesh (like MACMAT-R). The geocover is attached to the slope with anchors, which are at a distance of 1.0 m. At the exit from the slope, at a distance of 0.5 m, the geocover is anchored in the anchor trench, dimensions 0.5 * 0.5 m.

Under the geocover, a layer of 4.0 cm of humus material with mixed grass and fertilizer seeds is spread on the slope and the top of the river bank, in this way a grass cover is formed whose root grows through the geocover.

Unlike the first two types of solutions, in type 3 the slope is formed by gabions. The sidewalk is formed at an elevation of 75.00 m above sea level, from “Reno” mattresses, dimensions 4.0 * 2.0 * 0.3 m, filled with stone fractions 80-150 mm. Reno mattresses are placed horizontally along their entire length. The first row of gabions is arranged over the laid “Reno” mattresses, so that after their installation, a 3.0m wide sidewalk is obtained.

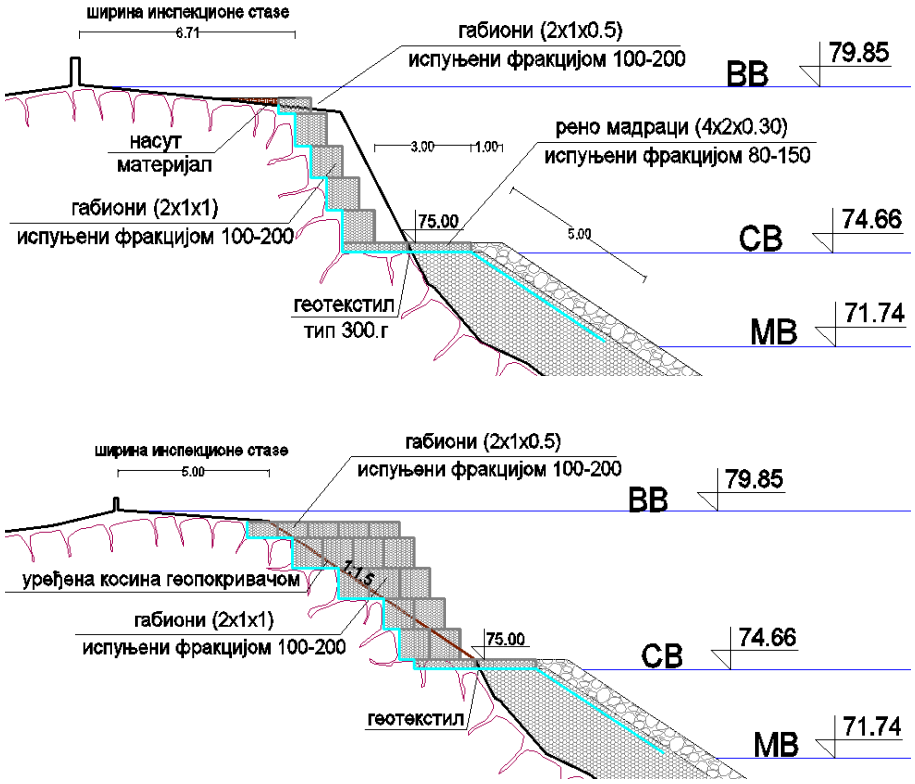


Figure 30: typical details of river bankal fortification - TYPE 3

The gabions dimensions are 2.0 * 1.0 * 1.0m and 2.0 * 1.0 * 0.5m, filled with stone fractions 100-250mm.

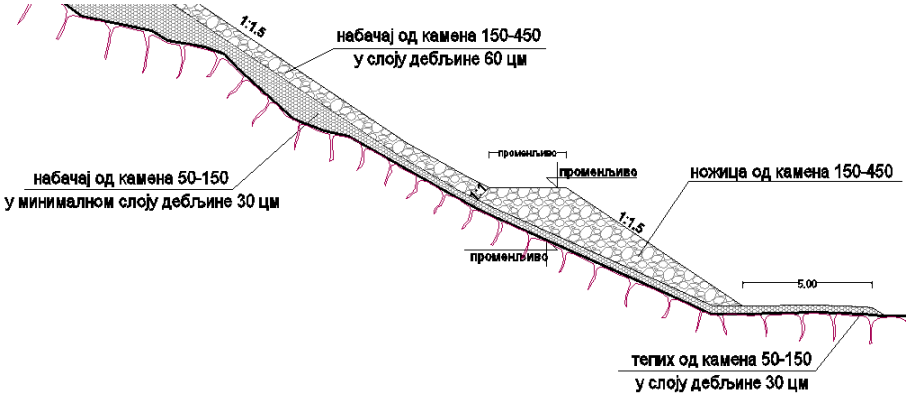


Figure 31: position of stone foot

In order not to wash out the material under the gabion, “Reno” mattress and on the slope of the river bank, geotextile (type 300gr) is placed.

In all three types of solutions, a stone foot is formed at the foot of the bank slope, which prevents the stone from sliding down the slope, minimum height 2.0 m and minimum crown width 2.0 m, with a slope of 1: 1 towards the river bank and a slope of 1: 1.5 towards the flow axis.

The foot is made of stone, fraction 150-450mm. Under the foot and five meters towards the river, a carpet is placed, 30 cm thick from the stone fraction 50-150 mm.

In order for the sloping stone slope to be stable, the foot is specially dimensioned in each profile. A detailed calculation is shown in the numerical documentation. The dimensioning of the foot was performed for the extreme case of load, for the minimum water level in the river. The force of gravity of the stone on the slope and in the foot is divided into two components, one that causes sliding down the slope and the other that acts perpendicular to the slope causing friction that opposes sliding. The size of the foot establishes stability. During the calculation, it was adopted that the safety factor be Fs = 1.3.

The slope of the river bank is determined from the foot to the elevation of the bank, 75.00 m above sea level, by filling the stone base 50-150 mm which fills the caverns, the slope is softened to 1: 1.5 or if the slope is less than 1: 1.5 it is covered with a layer of 30 cm and then final top layer of 60cm stone 150-450mm.

An excavator with a 12.5 m long boom is planned for excavation work, which can dig at a distance of 10.5 m horizontally and 7 m vertically.

1.5. Land acquisition and Resettlement Action Plan RAP

An alternative route for the Sub-project could not have been explored and the impact area itself could not have been avoided due to the nature of the Sub-project, since the alignment is set as it follows the position and the eroded and exposed river bank of the river. It has been determined that Sub-project design induces minimum negative impact to PAPs and the community, as planned works will evoke only cases of partial plot and minor land acquisition, benefiting the whole community of Jarak, but foremost the impacted owners closest to the river and most susceptible to flooding risks.

The land acquired for the Sub-project has been compensated at replacement cost, as per the Entitlement matrix presented in the RAP prepared in response to the identified impacts stemming from economic discplacement. The RAP has been developed, adopted, consulted and discosed in 2019.

Land ownership

Implementation the Jarak Sub-project on the Hrtkovci part of the river Sava will require permanent land acquisition of one privately owned land parcel 3617/2, in the total area of 3.099 m^2. The ownership is registered as sole ownership but a usufruct right over ¾ of the land is registered in the name of the owner's mother. Both of them are members of the same household. Such titles are usual in the civil law of Serbia and in practice and are often a result of transfer of legal title to assets *inter vivos* i.e. transfer of title between living relatives. Besides this privately-owned parcel, other parcels of public lands, located on the left Sava River bank, will be permanently needed as well for execution of the Sub-project as shown in Table 1. below.

N^o	Cadastral municipality	Plot number	Total area m^2	Owner
1	Hrtkovci	3617/2	3.099	Private property
2	Hrtkovci	4387	900	RS ownership - use PWMC Vode Vojvodine
3	Hrtkovci	4507/1	598.150	RS ownership - use PWMC Vode Vojvodine
4	Hrtkovci	4508	1.255.592	RS ownership - use PWMC Vode Vojvodine
5	Jarak	1371/16	4.258	RS ownership - use PWMC Vode Vojvodine
6	Jarak	1549/1	70.324	RS ownership
7	Jarak	2593	13.297	RS ownership - use PWMC Vode Vojvodine
8	Jarak	2641	6.970	RS ownership - use PWMC Vode Vojvodine
9	Jarak	2642	4.309	RS ownership - use PWMC Vode Vojvodine
10	Jarak	2643	7.646	RS ownership - use PWMC Vode Vojvodine
11	Jarak	2653/2	32.242	RS ownership - use PUC "Vojvodina forests"
12	Jarak	2665	1.293.102	RS ownership - use PWMC Vode Vojvodine

Information disclosure

The MFWM/PMU will organize project launch meetings together with the public consultation on this ESMP. The PIU will rely on the support from the respective Municipalities to help organize community meetings/sensitization sessions in all settlements throughout the project's lifecycle. Launch meetings shall be the first step in the Sub-Project preparatory activities. The Project will include targeted outreach to women and disadvantaged groups ahead of these meetings to ensure their integration in the engagement activities. Written information will be disclosed to the public via a variety of communication materials including brochures, flyers, posters, etc. A public relations kit will be designed specifically and distributed both in print and online form. PIU will also update its website regularly (at least on a quarterly basis) with key project updates and reports on the project's environmental and social performance both.

In compliance with the World Bank's ESS10 requirement, a Project specific Stakeholder Engagment Plan (SEP) has been prepared inclusive of a Project specific grievance mechanism has been set-up for the project. Dedicated communication materials (GM pamphlets, posters) have been created to help local residents familiarize themselves with the grievance redress channels and procedures. A GM guidebook/manual will also be developed and suggestion boxes installed at the construction site. In order to capture and track grievances received under the project, a dedicated GM Management Information System/database is kept.

The PMU will disclose sub-project information to allow the affected community and other stakeholders to understand the risks and impacts of the Sub-project, and potential opportunities. The Borrower will provide the community and hold meaningful consultation with access to the following information:

- The purpose, nature and scale of the project
- The duration of proposed project activities;
- Potential risks and impacts of the Sub-project on local community;
- The proposed stakeholder engagement process highlighting the ways in which stakeholders can participate;
- The time and venue of any proposed public consultation meetings, and the process by which meetings will be notified, summarized, and reported; and
- The process and means by which grievances can be raised and will be addressed.

2. LEGAL AND INSTITUTIONAL FRAMEWORK

2.1. Relevant Institutions

In the Republic of Serbia SDIP will be implemented through two PMU's which are formed in the Ministry of Agriculture, Forestry and Water Management (MAFWM) and the Ministry of Transport, Construction and Infrastructure (MCTI).

The MAFWM and the Ministry of Environmental Protection (MEP) are the key relevant institutions for environmental management for SDIP related projects.

The other aspects of environmental and social management related to SDIP projects are dealt with several other institutions, among which are the Institute for Nature Protection of Serbia and the Institute for Protection of Cultural Monuments of the Republic of Serbia, and the Public Water Management Companies (PWMC) "Srbijavode", "Beograd Vode" and "Vode Vojvodine".

2.2. EIA procedure in the Republic of Serbia

In the juridical system of the Republic of Serbia, the Environmental Impact Assessment procedure is regulated by the Law on Environmental Impact Assessment, which is completely in line with European EIA Directive (85/337/EEC, 97/11/EC, 2003/35/EC and COM 2009/378). According to that Law, preparation of the Environmental Impact Assessment is not required for the embankment stabilization projects unless their alignments are placed within or in the vicinity of the nature or culture protected areas. In such cases the Project Proponent is obliged to submit so-called "Request for Decision about Need for Environmental Impact Assessment" (RDNEIA) to the Ministry of Environmental Protection (MEP). Depending on the Ministry's assessment of significance of potential environmental and social impacts of the project, it is decided if there is a need (or not) to apply partial or full EIA procedure for the relevant sub-project.

Request for opinion regarding necessity of EIA procedure for each sub-project which is found to be adjacent or within the nature/cultural protected area will be submitted to the Department of Environmental Impact Assessment within the Relevant Institution.

3. POTENTIAL environmental and social impacts

Since the existing infrastructure, facilities and equipment will be rehabilitated, reconstructed, repaired and replaced during the realisation of the project, impacts on environment will be a consequence of human presence and construction machines, and the nature of construction works at a location, which are limited to the location of works or its surrounding vicinity.

Embankment stabilization works would not pose significant risks to the environment. In addition, the project aim is to decrease embankment erosion and deviation of the riverbed, and as such will have a localized impact on the flow of the river. Proposed works can be divided into surface and riverbed works. Riverbed works are expected from June to November, coinciding with low water levels, and should not last as long as surface works, which will start first. As a consequence, the range of impacts is limited (impacts directly related to the rehabilitation activities) and their magnitude remains small (localized impacts and no significant effect on future operation). Considering the nature of the proposed project, it is anticipated that adverse environmental impacts can be expected in the construction phase mainly. The aspect of health and safety at work is also taken into consideration. It is to be noted that parts of the construction work are taking place in an urban environment, however in all parts in an environment already strongly influenced by human activities. Broadly, the impacts in the construction phase can be of the following types:

- **Soil and Water Pollution**: during construction activities, when using machinery, there is a possibility of soil contamination due to accidental spills of oils and fuel from construction machinery. In the area of construction works, construction waste is generated which, if not properly disposed of, may result in adverse impacts. The construction works carried out inside the river bed results in a temporary increase of turbidity of the watercourse.
- **Flora and fauna**: construction works in the river bed along with the temporary increase of turbidity in the watercourse can pose a threat to freshwater habitats, while noise originating from construction machinery may temporarily impact surrounding surface habitats including the natural protected area “Zasavica” located south of the site. Impacts on other habitats are not expected.
- **Sourcing of materials.** As typical for construction works the project will increase consumption of energy and raw materials, waste generation and emission of pollutants. Impact will be mitigated through utilising material plants possessing valid environmental permits.
- **Disposal of excavated materials and construction wastes**. Demolition debris and excessive soil are usually generated during the rehabilitation works on drainage and river embankment systems; these would need to be managed through licensed companies for construction and municipal waste from the site, while the excavated materials can be used for landscaping, other uses or to simply dispose these at a defined location with adequate measures to ensure aesthetic requirements of the disposal site’s area.
- **Degradation of landscapes and soil erosion**. The impacts on vegetative cover will be short-term, localized, and totally associated with rehabilitation works; in case of removal of any vegetation, adequate replanting measures will be conducted.
- **Impacts from temporary access roads and work areas**. Establishment of temporary dirt roads to access work areas and temporary disposal sites for excavated materials can enhance soil erosion, and degrade the landscape;
- **Noise and vibration disturbances** during construction and temporary air pollution (dust) related to the transportation of construction materials and truck traffic. These impacts will occur during the construction and rehabilitation works, but will be only short-term. Effects include dust from construction activities, noise during trench excavation, possible effect of vibration caused by operation of heavy machinery, increased traffic in some sections of roads, etc.;
- **Safety hazards from construction activities**. No major hazards are expected the construction of the proposed project elements, as long as proper construction practices and safety procedures are applied;
- **Community health and safety risk.** Hazards posed to the public while accessing project facilities may include:, Injuries suffered as a consequence of falls or contact with heavy equipment. Reduction of potential hazards is best accomplished during the design phase when the structural design, layout and site modifications can be adapted more easily. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a project: · Inclusion of buffer strips or other methods of physical separation around project sites to protect the public from

major hazards associated with hazardous materials incidents or process failure, as well as nuisance issues related to noise, odors, or other emissions ·

- **Impacts on historic-cultural and archaeological monuments**. No archaeological or cultural resources are recognised during project preparation phase. A separate preconditions obtained from relevant institution – Institute for Protection orf Cultural Monuments in Sremska Mitrovica are obtained confirming there are no statutary protected archaeological sites along the project zone. The ESMP also includes a chance finds procedure in case any cultural heritage may be discovered during the works.

  However, due to the proximity of already investigated archaeological site "Gomolava", following preconditions obtained from relevant institution – Institute for Protection orf Cultural Monuments in Sremska Mitrovica, a permanent archaeological supervision will be established during the subproject's rehabilitation works.

  Major works consist in rehabilitation of left river bank where in case of any findings the Contractor shall cease with works momentarily and notify the IPCM.

- **Key Labor Risks.** Project workers (external consultants and employees of service providers) are anticipated to be office staff with most of their work done indoors. Contractor's employees will encounter difficult working conditions regarding the river bank works, any OHS impacts will be mitigated by applying the procedures put forth in this ESMP document, the Labour Management Procedures (LMP) adopted for the Project and relevant national legislation.. All Employers of direct or contracted workers, in the project must ensure safety and health at work and strict adherence to the legal provisions in respect to worker's rights.

3.1. Potential environmental and social impacts of Jarak Project

In general, all negative impacts in the phase of construction are temporary and can be mitigated by applying good construction practices.
Significant negative impacts on natural environment in the operational phase are not expected. On the contrary, impacts in the operational phase are considered to be highly positive, as project aims at prevention of risks for environment, humans and civil infrastructure.
Construction of flood protection structures is based on the river bank regulation; it is about preventing the flooding of relatively small areas of urban zones, and at relatively shallow depths. T he downstream impact on other users is negligible.
Project impacts by phases are shown in following table:

Phase	Type of impact
Construction phase	Soil compaction and erosion Dust emission Noise Soil and water pollution Impact on aquatic ecosystem Degradation of riparian vegetation caused by construction work Risk to people and/or animals of unfenced and unlabelled construction site Health and safety risk for workers on the construction site due to the potential land sliding
Operational phase	Low impact on natural environment on the project location Positive impact in terms of prevention of risks for environment, humans and property
Degree of negative impact	Minimum if mitigation measures are applied

3.2. Other positive impacts of SDIP Project

The repair of flood-damaged infrastructure and facilities will bring economic, social, health and ecological benefits, to population and local community in this area. Experiences of similar projects show that the project will have many positive effects on society through the creation of conditions for

population's standard growth in almost all segments (education, health protection, additional employment, transport).

If some of the unemployed are employed or if employment has impact on unemployment, the project creates social benefits due to decreased social support or aid to the unemployed. That is the case in the Sava and Drina River Corridors Integrated Development Program.

3.2.1. Capacity Strengthening and Training

Through SDIP project implementation relevant national agencies will familiarize themselves with WB Environmental and Social Standards through consultations and public presentations, as well as with good practices in their purposeful implementation.

Engaged Contractors will be obliged to familiarize their workers and staff engaged on Sub-Projects implementation with the Environmental and Social Standards, increasing awareness and knowledge.

3.3. Potential negative Impacts and recommended Mitigation Measures

Summary of key impacts during construction phase and recommended mitigation measures are described in following table:

Impact	Significance	Comment
Impacts on land use/ settlements,	moderate	The Sub-Project will require land acquisition of private land, but will not require physical displacement. The Impacts are mitigated by implementation of measures provided in the Sub-Project Resettlement plan prepared in line with ESS5
Ground and surface water,	low	Due to low amount of drainage water that can be potentially drained from the Contractor's site and during works execution into the river the consequential impact is expected to be minimal to negligible. Adequate project supervision will be established and no long term water disturbance or similar activities will be allowed. Considering the methodology of works on embankment regulation, localized impacts to the river flow (increased turbidity) are expected. Haltening of the erosion of the riverbank will result in increased river flow in operational phase.. Improper disposal of excavated materials and construction wastes could adversely impact ground and surface water. A properly organised waste disposal is mandatory requirement for the Project
Air quality,	low	Temporary impact. Local air quality may experience some moderate and temporary deterioration due to dust from transportation of construction materials and truck traffic and elevated levels of nitrogen oxide (NOx) and sulphur oxide (SOx) from construction equipment exhausts. Impact can be mitigated by following WB EHS Guidelines (GEHSG)[3] procedures
Flora and fauna (protected areas and species),	low	Minimal loss or damage of vegetation and loss and damage or disruption to fauna can occur during works. The project works will lead to increased consumption of energy and raw materials, waste generation and emission of pollutants. Impacts can be offset or mitigated by following GEHSG procedures and possession of valid environmental permits by the material suppliers. There will be no negative impacts on protected areas due to nature of works.
Noise and vibration,	low	Only limited temporary impact during the rehabilitation phase. Mitigation measures in form of noise deflecting shields will be

[3] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

Impact	Significance	Comment
		placed where the work-scheduling activities cannot have desired effect. Impact can be mitigated by following GEHSG procedures.
Soil quality,	low	Soil contamination can occur from: Drainage of dredged materials, spillage of hazardous and toxic chemicals. Impact can be mitigated by following GEHSG procedures
Loss of top soil	low/ negligible	Loss of top soil due to temporary access roads and work areas, Landscape degradation
Waste	low	Health hazards and environmental impacts can happen due to improper waste management practices. Impact can be mitigated by following GEHSG procedures
Cultural and religious issues,	low/negligible	Regular rehabilitation activities could, if not properly managed, cause disturbance to the cultural and religious sites. Impact can be avoided by implementing ESMP related measures.
Cumulative impacts etc.	moderate	Temporary, rehabilitation works may cause a slight increase of noise levels and air pollutants concentrations during the works only
Community Health and Safety	moderate	Risk to community health and safety (ESS4). The major risks tied to Community health and Safety relate to potential traffic and road safety risks to workers, affected communities and road users throughout the project life. These risks mainly stem from increased traffic on haulage routes from and to potential borrow and deposit areas to be used by the Contractors during construction works. Increased risk from hazardous materials including UXOs, mines and mine-exploding devices might be found which shall adequately be addressed through development of “Unexploded ordnance and mines chance finds procedure. Health and safety risks posed by the influx of workers or people providing support services into an area are almost considered negligent, while Gender-Based Violence (GBV) or Sexual Exploitation and Abuse (SEA), or communicable diseases are not anticipated in relation to the project.
Staff safety	low	Construction workers may be affected adversely due to hazardous working environments where high noise, dust, unsafe movement of machinery etc. may be present.
General population	low	Works surrounding the inhabited areas mostly consist of upgrading of the existing embankment; zone of works is mostly uninhabited and used for agriculture. Minor impacts on general agricultural activities around the project area are expected.
Ecosystem and water quality	Low	Impacts related to the borrow pits for materials, shall be mitigated by using existing borrow pits or buy material at licensed separations; requirement for official approval or valid operating license. After exploitation ensure borrow pits are remediated.
Disturbance to the ground and surface water	Low	Improper disposal of excavated materials and construction wastes could adversely impact ground and surface water. A properly organised waste disposal is mandatory requirement for the Project

Possible adverse effects as a consequence of temporary construction activities shall, among other things, consist of: damages to access roads, noise, waste and dust; gaseous emissions; potential soil and water contamination; short-term disruptions to surrounding ecosystems; and momentary disruptions to neighboring settlements through various project and operational activities. Contractor's camp site offices may be a potential source of temporary adverse impacts.

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

A specific Labour Grievance Mechanisms for Contracted workers will be established and should address workplace concerns specifying procedures as to whom a project worker should lodge the grievance, the time frame for receiving a response or feedback and steps to refer to a more senior level, while allowing for transparency, confidentiality and non-retribution practices.

The mechanism shall::

- Specifies to whom the employee should lodge the grievance;
- Refer to the time frame allowed for the grievance to be dealt with;
- Allow the employee to refer to a more senior level within the organization if the grievance is not resolved at the lower level;
- Include right to representation;
- Guarantee non-retribution practice;
- not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration/dispute resolution procedures, if the grievance is not resolved within the organization;
- Provide for anonymous complaints to be raised and addressed.

All in line with the Project LMP applicable to all Propject Workers.

3.4. Potential water / wetland impacts

While implementing the works localized impacts are expected, resulting from increased turbidity and disturbed river flow. Disturbance to the river flow is expected upon works completion, whereas the protected embankment no longer deviates resulting in increased water flow, emphasized during high water season. Low water levels on the project section are observed from June to November, while high water levels are observed from March to June.

During rehabilitation of embankment protection system at Sava River in the area near Jarak settlement, there is a possibility of water contamination, as a consequence of water effluent from the construction site, spillage of fuels and oils from construction mechanization and uncontrolled flow of sanitary waters from the Construction site and the Contractor's camp.

Considering possible pollution after works completion, they are limited to accidents only. In which case as defined by the Ministry of Interior and the Law on Water, procedures for incidental situations will be applied.

Spillage of fuels and oils may, in most cases, occur inside the Contractor's camp and on manipulative surfaces where equipment and construction mechanization is maintained and cleaned. Effluent dirty water should be treated in separators of adequate size before being discharged towards the recipient.

If any spillage occurs inside the project area, the Contractor is obligated to mitigate the problem by applying absorbing materials, such as absorbing carpets / linens, or sand, as well as remove the layer of contaminated soil and move it to an approved location, in accordance with the Law.

3.5. COVID-19 continued risk considerations:

All categories of workers may be involved in activities that raise COVID-19 exposure concerns, as most activities include physical contact between the workers and/or physical interactions with other people. To mitigate the risk, the project will overall follow applicable national guidance and WHO guidelines. The identification of the risks will assist designing appropriate mitigation measures to address those risks, such as, rearranging work tasks or reducing number of workers in the offices/workplaces to allow physical distancing, providing appropriate forms of personal protective equipment (PPE)..

4. ENVIRONMENTAL MITIGATION MEASURES

This document presents a site-specific ESMP, prepared by the ESSS and is required for each SDIP sub-project. A site-specific ESMP is an action plan detailing which of the Environmental Assessment report recommendations and alternatives are adopted and implemented. It can be produced as part of Detailed Design, or like the subject ESMP, as a free-standing document. It ensures incorporation of the relevant environmental factors into the overall project design and links the project to other relevant Environmental and Social Standards.

4.1. Cost Estimates

Scope of prescribed mitigation measures for the subject project works is such that it correlates with good environmental practises during construction and their implementation will have a negligible impact on the total cost of the works.
It is the Contractor's obligation to cost implementation of environmental mitigation measures in his overall cost. The Contractor will be required to provide a short statement that confirms that:

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

4.2. Mitigation Measures

4.2.1. General

This section details out the potential environmental and social impacts of the SDIP sub-projects.

4.2.2. Environmental and Social Impacts and Respective Mitigation Measures

Erosion of embankment slopes

Impact - The earthworks for the sub-project activities might cause negative impacts in form of erosion on embankment slopes, dust, noise and vibration to disturb the local people.

Mitigation Measures - Excavation and/or filling will be done in such a way that the slope of the embankment Jarakshould be within right of way. The Contractor should use erosion control measures such as re-vegetation of disturbed areas and placing of tarps. The Contractor shall stabilize the cleared areas not used for rehabilitation activities with vegetation or with the appropriate surface treatments as soon as practicable following completion of activities.

Increased generation of pollution – Supply of material

Impact - The project works will lead to increased consumption of energy and raw materials, waste generation and emission of pollutants.

Mitigation Measures – During material supply ensure that material plants engaged by the Contractor posses valid environmental permits and conformance with the requirements of environment protection, health protection and human safety.

Potential air pollution - Dust

Impact - Possible sources of air pollution will be dust due to maintenance activities, machinery movement and other sources. Rehabilitation works involve breaking up, digging, crushing, transporting, and disposal of small quantities of dry materials. Locally, the air quality may experience some moderate and temporary deterioration due to dust from construction traffic and elevated levels of nitrogen oxide (NOx) and sulphur oxide (SOx) from construction equipment exhausts. The dust may settle on vegetation, crops, structures and buildings.

Mitigation Measures - Spraying of water is the main way of controlling dust. Water is, in any case, required to be added to fill material during the rehabilitation works.

Potential water impacts

Impact - While implementing the works localized impacts are expected, resulting from increased turbidity and disturbed river flow, accidental water impacts may occur during the execution of the project from site run off, spills from the equipment maintenance areas and sanitary wastewater effluent from the work camps. As for the potential pollution during operation, these are mostly limited to accidents. In such a

case, procedures for action in incidental situations, as defined by the Ministry of Interior and in the Water Law, will apply.

Mitigation Measures - The site will establish appropriate erosion and sediment control measures (e.g. hay bales and / or silt fences) to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers. Fuel and lubricant spills can occur at the Contractor's work camp while maintaining and washing equipment and work vehicles. During the normal operations, these areas should be equipped with the adequately sized, gravity oil separator. Should spills occur, to mitigate the problem the Contractor should use absorbing materials, such as absorbent mats/fabrics, or sand and scrape off the contaminated soils and dispose them in approved facility, in accordance with the Water Law.

Contractor should produce a Waste Management Plan for the Project. Mitigation measures should, among other requirement, contain contractor obligations to:

- Locate the garbage pit/waste disposal site min 500 m away from the residential area so that people are not disturbed with the odour likely to be produced from anaerobic decomposition of wastes at the waste disposal places. Encompass the waste disposal place by fencing and tree plantation to prevent children to enter the area. All solid waste will be collected and removed from the work camps and disposed in approval waste disposal sites.
- In case oil and grease are trapped for reuse in a minimum 60cm thick lined pit, care shall be taken to ensure that the pit should be located at the lowest end of the site and away from the residential areas.
- In case of filling of low-lying areas with wastes, it needs to be ensured that the level matches with the surrounding areas. In this case care should be taken that these low lying areas are not used for rainwater storage

Equipment maintenance and fuelling

Impact - equipment maintenance and fuelling may cause contamination of soils and watercourses, including groundwater, if handling of lubricants, fuels and solvents is improper or careless.

Mitigation Measures - To avoid damage to natural environment there is a need to ensure proper handling of lubricants, fuels and solvents while maintaining the equipment. .

Noise

Impact - Noise caused by the rehabilitation works will have only a temporary impact. Although temporary and mostly moderate, noise impacts in the vicinity of residential areas may cause negative health impact, if not mitigated.

Mitigation Measures - In sensitive areas (schools, nature parks, hospitals) special care regarding noise emission will be taken by the Contractor, strictly respecting the ESMP requirements. In case of noise disturbance with noise emissions which are above permitted level, temporary noise barriers should be considered as appropriate mitigation measure. Awareness building and administrative measures should be taken to ensure proper maintenance of vehicles. In case of exceeded noise limits for sensitive areas the Contractor should erect temporary shields to prevent a free noise spreading to the sensitive receptors.

Based on the preliminary assessment, key mitigation measures recommended under this Environmental and Social Management Plan (ESMP) are listed as follows:

- Identify and locate on project plans any sensitive natural resources in the project area including but not limited to patches of natural habitat, bird colonies, and wetlands, unique plant communities etc. (consult with local nature protection authorities).
- Identify local access routes through and around cultivated land and pasture.
- Minimize requirements for temporary or permanent alteration of lands outside the embankment right of way.
- Dredging for embankment materials should occur only within marked navigation channels to minimize destruction of fish habitat.
- Provide for zones of preliminary accumulation of wastes that will cause no damage to the vegetation cover and other components of the environment.
- Transport and disposal of construction concrete rubbles, debris and spoils in approved paths and landfills/disposal sites.
- Delineate access roads/ work areas carefully and prevent their expansion.

- Rehabilitate access roads and work areas after work completion (scratch soil with special engine, put fertile topsoil in place, etc.).
- Use closed/covered trucks for transportation of construction materials.
- Clean the surrounding area from dust by water sprinkling, removal of excess materials and cleaning of sites upon completion of activities.
- Restoration to quasi-original conditions of landscape after completion of construction and rehabilitation works.
- Arrange necessary preservation measures (establish protection zones, by-pass these areas during transportation and other).
- Cease the works as soon as historical and cultural monuments are encountered during earthworks and provide relevant information to the State Agency for Historical and Cultural Monuments Protection.
- Conduct mid-term and end-of-project inspections to the sites during construction and rehabilitation works.

Labor risk

Impacts - Workers may be affected

Impacts - Workers may be affected by working conditions, working in and near water bodies, violtion of workers rights. The Labour risks are associated with construction activities such as exposure to physical hazards during construction activities such as: use of heavy equipment, works on river banks with high-speed currants, trip and fall hazards, exposure to noise and dust, falling objects, exposure to hazardous materials and exposure to electrical hazards from the use of tools and machinery. As the construction activities will involve hazardous work, persons under the age of 18 will not be employed by the Project

Mitigation Measures – Establishment of a worker specific grievance mechanism for project workers. The project worker is entitled to give suggestions, remarks and information regarding health and safety at work. He/She may refuse to work if his/her life or safety is endangered or if appropriate measures for provision of health and safety at work are not in place. The project workers should be informed on available grievance mechanisms upon their employment or engagement. Contracted parties should demonstrate their willingness to implement these mechanisms, even if such requirement is not prescribed by any law of the domicile country.

Occupational Health and Safety

Impacts - Construction workers may be affected adversely due to hazardous working environments where high noise, dust, unsafe movement of machinery etc. may be present.

Mitigation Measures - The Contractor shall provide induction trainings in health and safety matters, and require from the workers to use the provided personal safety equipment. Contractor has to ensure that all operators of heavy or dangerous machinery are properly trained/certified, and also insured. The Contractor shall have first aid facilities on site, and prepare for rapid availability of trained paramedical personnel, and emergency transport to nearest hospital in a case of accidents and injuries..

Prior to initiating works, the Contractors will be required to prepare and submit for approval Site-Specific Implementation Plans (SSIP) consisting of:

- Waste and wastewater management plan
- Oil and fuel storage management plan
- In-river works management plan
- Camp management plan
- Re-foresting plan
- Emergency response plan

The following table presents the Mitigation Plan for SDIP Sub-project Jarak and it is intended as a checklist to ensure that relevant mitigation measures are implemented at appropriate project stages.
Contractors are obligated to familiarize their workers with the Environmental and Social protection measures put forth within the subject ESMP document.

4.3. Mitigation Plan for SDIP Sub-Project Jarak

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
PRE-CONSTRUCTION	**EIA Procedure and Tender documents preparation**			
	Tender documents prepared with access to or use of the this ESMP in a translated version	No Tender documents will be prepared without incorporated a (Serbian) copy of the mitigation and monitoring plan ESMP, which shall be included in the safeguard clauses of the Technical Specifications in the contracts and commitment to comply with Lender Requirements	PMU Employer PWMC "Vode Vojvodine"	
Land Acquisition procedure	The land acquisition impacts have been mitigat assessed as minor	Private land required for the physical footprint of the project has been acquired, compensated in line with the RAP	PMU Employer PWMC "Vode Vojvodine"	A resettlement Audit is to be perfomed prior to start of construction works
Planning/ Designing	Assure compliance with relevant construction field legislation	Acquire construction permit Provide Water management guidelines if sub-projects are executed near surface watercourses.	Project applicant	
Planning/ Designing	Potential damages to the existing infrastructure and facilities, especially underground installations (water supply and sewerage pipeline etc.) which cause obstacles in the provision of services to consumers.	Precisely situate the position of infrastructural facilities and underground installations at the location of works in cooperation with relevant institutions at all levels of authority.	Project applicant in cooperation with designers and representatives of relevant institutions of local authority.	
Planning/ Designing	Increased possibility of employment and gaining income in the local community.	Prioritise qualified local population in employment.	Contractor	Problems should be regulated through tender documentation.
	Obligation of publishing the results of archaeological excavations	It is necessary to provide funding for storing, publishing and presenting for goods which will be discovered, archaeologically excavated and researched, documented and conserved for the sake of permanent scientific and	Investor PWMC "Vode Vojvodine"	

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		professional presentation encompassed in an investment project		
Communication and Stakeholer Engagement	Timely engagement with relevant Stakehiodlers including local Communities	Prepare the ad hoc project specific implementation plan featuring the key activities from SEP and prepare the communication tools and material	PMU Social Specialist	SEP implementation Action Plan to be prepared by February 10, 2022
CONSTRUCTION	**Material supply**			
	Sand and gravel borrow pit. disturbance of Sava River bed, water quality, ecosystem disturbance	Use existing borrow pits or buy material at licensed separations; requirement for official approval or valid operating license. After exploitation ensure borrow pits are remediated.	Sand and gravel Contractor or Separation	to be specified in Tender documents - Conditions for selection of subcontractors for material supply
CONSTRUCTION	**Material transport**			
	Community nuisance from dust, noise and operation of heavy vehicles nad machines	All trucks are to be covered and equipment and machinery routes sprinkled with water	Truck operator Contractor	a)-d) to be specified in Tender documents- Technical Specifications for realization of works
		In addition to above implement a restricted working time in consultation with the Local Community. No other rsensitive receptors have been identified but Community dinamics in the zone of Vuka Karadzica street need to be observed	PIU E&S Specialist Contractor	
CONSTRUCTION	**Construction site**			
	Potential water and soil pollution from improper material storage, management and usage	organize and cover material storage areas; isolate concrete, works from watercourse by using sealed formwork or covers; isolate wash down areas of concrete trucks and other equipment from watercourse by selecting areas for washing that are not free draining directly into	Construction Contractor	

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		watercourse		
	Water and soil pollution from improper disposal of waste materials	dispose waste material at location protected from washing out, should be marked in the site plan; if not on site, then at authorized landfill / depot	Construction Contractor	
	Water and soil pollution from improper disposal of waste materials	Storage of wastes according to international best practice (IFC EHS General Guideline). Apply additional measures for storage of hazardous wastes (such as use of secondary containment, access restriction, provision of PPE etc.) as necessary to prevent harm to construction staff, environment and public. Use and labelling of designated waste collection containers and storage areas for different kinds of wastes.	Construction Contractor	
	Potential contamination of soil and water from improper maintenance and fuelling of equipment	apply best engineering practice in safe storage and handling of lubricants, fuel and solvents by secured storage; ensure proper loading of fuel and maintenance of equipment; collect all waste and dispose to permitted waste recovery facility	Construction Contractor	
	Water and soil pollution from improper disposal of waste materials	Transport of waste in marked vehicles designed to the type of waste to minimise the risk of release of materials (hazardous and non-hazardous materials) and windblown debris. Training of drivers in handling and disposal of their cargo and the documentation of the transport describing the nature of the waste and its degree of hazard.	Construction Contractor	
Rehabilitation/ Reconstruction/ Repair	Soil groundwater and surface water pollution. with oils and lubricants due to equipment poor maintenance and repairs and refuelling at the Construction site.	Avoid servicing and refuelling at the site. Use protective foils during possible vehicle refuelling and maintenance at the construction site. Provide absorbing material in case of fuel spills. Used oiled materials and agents should be managed in l line with the Waste management report. Procedure for actions in case of incidental oil and lubrication spills. Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures. Measures from water management documents and measures from the Waste management	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		report.		
Rehabilitation/ Reconstruction/ Repair	Water and soil pollution due to inadequate disposal of communal, inert and hazardous waste.	Typical containers for solid Communal waste are placed at the construction site locations; Acceptance of collected Communal waste and its disposal by authorised institutions; Hazardous waste fractions (used waste oils, oiled packaging. bitumen agents waste, waste transformer oils, waste asbestos-cement pipes etc.) are separately collected into typical containers or metal barrels; they are to be consigned to entities authorised for hazardous waste management; Re-usage and recycle of waste whenever possible. It is prohibited to incinerate waste in the open and at the location. Actions in line with the waste management report.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Potential pollution of soil and water due to the discharge of waste sanitary waters from the construction site	Installation of ecological toilettes for workers	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Population at increased risks of traffic accidents and construction works to population.	Assure adequate warning signs, lighting, protective fencing etc. Observe traffic rules. Clean construction waste from the construction site both in the construction phase and after works completion, when closing the construction site. Assure medical supplies and aid through institutional and administrative arrangements with municipal hospitals at the construction site. Implement the Construction Site Organisation Plan.	Contractor	Problems should be regulated through the Works execution contract.
	Possible air, water and soil pollution / dust, vehicle exhaust, fuel and lubricants spills	apply best engineering practice in safe storage and handling of lubricants, fuel and solvents by secured storage; ensure proper loading of fuel and maintenance of equipment; collect all waste and dispose in line with the Law on waste management (“Official Gazette of RS” No.	Maintenance Contractor	

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		36/09, 88/10, 14/16, 95/18); Organize and cover material storage areas; selecting areas for washing that are not free draining directly or indirectly into watercourse (Sava River); dispose waste material at location protected from washing out		
	Chance Find	if an archaeological site is encountered, Contractor will immediately suspend the Works and inform IPCM-	Construction Contractor (Periodical IPCM monitoring if applicable)	
	Worker's safety	provide workers with safety instructions and protective equipment; safe organization of bypassing traffic	Construction Contractor	
	Community health and safety	preparation of all pertaining parts of Construction H&S Management Plan (OHS, community safety plan, traffic management plan, hazardous materials safety plan, training programme, emergency preparedness and response etc.) - Traffic Management Plan Following emergency preparedness and response plans will be prepared, as a minimum: - Spill Response Plan, - Fire Response Plan (fire and explosion hazards, identify evacuation routes; - Traffic Accident Response Plan - Structure Collapse Preparedness and Response Plans - Flooding preparedness and response plan - Unexploded ordnance preparedness and Response Plan (which will include Unexploded Ordnance Chance Finds Procedure; Minimum content of plans - Organisational structure, Responsibilities, Communication, Procedures, Training, Resources. When required by the National Legislation, Contractor is obliged to consult relevant Institutions/Ministries and obtain approval for these plans.	Construction Contractor Oversight by PMU E&S Specialists and the Engineer	

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		- Avoid night time construction when noise is loudest. Avoid night-time construction using heavy machinery, from 22:00 to 6:00 near residential areas. - No discretionary use of noisy machinery within 50m of residential areas and near institutions, manual labor can be used at this point. - Good maintenance and proper operation of construction machinery to minimize noise generation. - Where possible, ensure non-mechanized construction to reduce the use of machinery - Undertake regular maintenance of generator		
	The Labour risks are associated with construction activities such as exposure to physical hazards during construction activities such as: use of heavy equipment, works on river banks with high-speed currants, trip and fall hazards, exposure to noise and dust, falling objects, exposure to hazardous materials and exposure to electrical hazards from the use of tools and machinery. As the construction activities will involve hazardous work, persons under the age of 18 will not be employed by the Project.	Implement the LMP Labour audits	Construction Contractor Oversight from the PMU Social Specialist	
	COVID -19 elevated risks	Protection measures against COVID-19 The following basic infection prevention measures can help the containment of the spread of the disease and	Implement the LMP in relation to COVID – 19 Considerations and the WB	

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		protect the workers and the public: promote regular and thorough hand-washing by employees, contractors and customers; discourage touching the mouth, nose and eyes; provide and enforce the use of Personal Protective Equipment (PPE), ensuring that there are adequate facilities to use and dispose safely of it and that staff have been properly trained on how to use and dispose of PPE. Ensure that PPE is suited to both male and female body types; promote social distancing: make sure workplaces are clean and hygienic, and regularly disinfect surfaces (such as doors, elevator buttons, floors and desks) and objects (such as telephones, keyboards and machinery); promote shift working where possible; require quarantine measures for incoming expatriate workers; Specific prevention measures for construction sites: Ensure physical distancing, by: staggering start times; staggering breaks; staggering lunches; restricting the number of people on-site and where they are assigned to work; controlling site movement (by limiting the potential for workers to gather, including personnel in material hoists and site trailers); holding meetings in an outside or large space to enable physical distancing; limiting unnecessary on-site contact between workers, and between workers and outside service providers, and encourage physical distancing in these areas (for example, by removing coffee trucks from site). Focus attention on hygienic conditions of on-site sanitation: access to soap and water or alcohol-based hand	ESF/SAFEGUARDS INTERIM NOTE: COVID-19 CONSIDERATIONS IN CONSTRUCTION/CIVIL WORKS PROJECTS (Annex 7) Implement Regulation on prevention and containment of infectious disease COVID-19 ("Official Gazette of RS", no. 151/2020, 152/2020, 153/2020, 156/2020, 158/2020, 1/2021, 17/2021, 19/2021, 22/2021, 29/2021 и 34/2021). Implement	

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		sanitizer; □ washroom facilities; □ sanitizing commonly touched surfaces or areas (hoists, site trailers, door handles, machinery); □ avoiding the sharing of hand tools and power tools. If sharing is necessary, enable sanitation of shared equipment; □ posting signage on hygiene in local language as well as in the majority workplace language so everyone can understand how to do their part. In case someone becomes ill with suspected COVID-19 at the workplace: □ put the ill person in a room or area where they are isolated from others in the workplace, limiting the number of people who have contact with the sick person □ contact the local health authorities □ identify the closest contacts with suspected COVID-19 person.		
	Labor Grievances	Ensure the Labor GRM is in place and operational. Include the Compliance statements in the Procyurement package	PMU Procurement Department CFU Oversight from PMU SOCial Specialist	Ensure tender documents are adapted and language refined to include relvant E&S Sections including Labor compliance with National lagisaltion and the Project LMP
	Community greivances	Operationalize the Project and sub-project level GRM	PMU Social Specialisty	
Rehabilitation/ Reconstruction! Repair	Supply of material	Use the existing quarries and concrete bases for the supply of material. Use licenced suppliers for other materials	Contractor	Borrow pits from which materials and concrete base are supplied must have valid environmental permits.
Rehabilitation/ Reconstruction/ Repair	Transport of material.	Using trucks with awning and special vehicles depending on the type of material.	Contractor	When transporting material, drivers must observe speed

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
				limitations
Rehabilitation/ Reconstruction/ Repair	Violation of vegetation cover	Replant or re-seed vegetation. Apply measures of good construction practice	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Emissions of dust from the landfill of earth material. due to vehicles' movement on macadam roads and construction works execution.	Compact deposited earth material. Sprinkle dust sources with water in order to reduce impacts on the surrounding population and vegetation. Control the speed of vehicles in order to reduce dust rising. Prepare and implement a Plan for construction site organisation that includes good construction practices.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Emission of gases and particles from vehicles, mechanisation and generators.	Regular equipment maintenance. The contractor is obliged to submit evidence of vehicle roadworthiness in line with the regulations on hazardous gases emission. Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Noise in the operation of heavy mechanisation and generators.	Observe law-defined working hours at the construction site. Make the generator casings sound proof if they are located near residential units. Ensure mufflers for heavy machinery. Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Increased water turbidity as a consequence of the works.	Construction works should be executed in a way that surfaces and natural contents outside the project are not damaged and that works are performed so that watercourses are not unnecessarily made tumid and watercourses discontinued. Works should be executed in dry weather. Prepare and implement a Construction Site Organisation	Contractor	Contractor
Rehabilitation/ Reconstruction/	Soil groundwater and surface water pollution.	Avoid servicing and refuelling at the site. Use protective foils during possible vehicle refuelling	Contractor	Problems should be regulated through the

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
Repair	with oils and lubricants due to equipment poor maintenance and repairs and refuelling at the Construction site.	and maintenance at the construction site. Provide absorbing material in case of fuel spills. Used oiled materials and agents should be managed in l line with the Waste management report. Procedure for actions in case of incidental oil and lubrication spills. Prepare and implement the Construction Site Organisation Plan that incorporates good construction practice measures. Measures from water management documents and measures from the Waste management report.		Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Water and soil pollution due to inadequate disposal of communal, inert and hazardous waste.	Typical containers for solid Communal waste are placed at the construction site locations; Acceptance of collected Communal waste and its disposal by authorised institutions; Hazardous waste fractions (used waste oils, oiled packaging. bitumen agents waste, waste transformer oils, waste asbestos-cement pipes etc.) are separately collected into typical containers or metal barrels; they are to be consigned to entities authorised for hazardous waste management; Re-usage and recycle of waste whenever possible. It is prohibited to incinerate waste in the open and at the location. Actions in line with the waste management report.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Reconstruction et damaged brides	Avoid driving on the Sava river banks; Ensure streambed and bank in the zone of bridges, upstream and downstream from bridges, as to ensure their protection from erosion processes.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Reduced passability through the area where the works are executed.	Plan the relocation of equipment at times when daily traffic is not jammed; Provide alternative passage for pedestrians and vehicles in cooperation with local authorities or provide a safe passage through the construction site; Avoid roads through inhabited areas especially near schools and hospitals; Prepare and implement the Construction Site Organisation Plan that incorporates	Contractor	Problems should be regulated through the Works execution contract.

Phase	Problem/activity impact	Mitigating measure	Institutional responsibility	Comment
		good construction practice measures.		
Rehabilitation/ Reconstruction/ Repair	Potential pollution of soil and water due to the discharge of waste sanitary waters from the construction site	Installation of ecological toilettes for workers	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Population at increased risks of traffic accidents and construction works to population.	Assure adequate warning signs, lighting, protective fencing etc. Observe traffic rules. Clean construction waste form the construction site both in the construction phase and after works completion, when closing the construction site. Assure medical supplies and aid through institutional and administrative arrangements with municipal hospitals at the construction site. Implement the Construction Site Organisation Plan.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Risk of injuries at work.	Implement the OHS requirements Provide protective equipment; Install warning signs at the construction site; Prepare and implement the Construction Site Organisation Plan and Protection at work measures plan.	Contractor	Problems should be regulated through the Works execution contract.
Rehabilitation/ Reconstruction/ Repair	Construction material leftovers after the closure of temporary construction sites	All shivers and material that remain after the closure of temporary construction sites are to be removed from the location and reused/recycled where possible. All remains are to be disposed of in a manner that will not be harmful to environment; this is to be done by companies that have permits to perform such works	Contractor	Problems should be regulated through the Works execution contract.

5. ENVIRONMENTAL AND SOCIAL MONITORING ACTIVITIES

DWM/PMU and PSC will monitor overall environmental performance during project implementation. Each SDIP sub-project will have a site specific ESMP document in which a monitoring plan(s) and check-lists are presented.

For each of the environmental components, the monitoring plan specifies the parameters to be monitored; location of the monitoring sites and duration of monitoring. The monitoring plan also specifies the applicable standards, implementation and supervising responsibilities.

In addition to the critical locations selected during design stage, the environmental monitoring will also be done at the construction camp site and any other plant site as determined relevant during rehabilitation works stage.

World Bank guidance on the environmental aspects of project monitoring, including its health and socio-economic aspects, is provided in Environmental Assessment Sourcebook Update 14 Environmental Performance Monitoring and Supervision (June 1996).

The project's monitoring program included surface and groundwater quality impacts, disturbance to important ecological habitats including riverside ecosystems, unscheduled environmental compliance inspections during construction, final inspection upon completion to ensure site condition is satisfactory, and assessment of sites prior to and after construction to ensure no loss of natural values.

Elements of an environmental performance-monitoring program:

Objectives

Indicators linked to project impacts and mitigation measures

Measured parameters

Institutional responsibilities, timing

Reporting arrangements

Cost and financing provisions

The following table presents the monitoring activities and responsibilities over the implementation of proposed mitigation measures, during execution of SDIP sub-project Jarak.

5.1. Monitoring Plan for SDIP Sub-Projects JARAK

Phase	What is the *parameter to be monitored?*	Where *the parameter should be monitored?*	How *the parameter should be monitored? / type of monitoring equipment*	When *the parameter should be monitored? (Frequency of measurement or continuous)*	*Why the parameter should be monitored? (optional)*	Institutional responsibility
						Operate
PRE - CONSTRUCTION			**Material supply**			
Water and soil pollution resulting from improper material storage, management and use	water quality (suspended solids, oils, ph values, conductivity)	In the River Sava upstream of construction site	Sampling, analysis in a certified laboratory possessing the required equipmen	Prior to the commencement of works	Identify eny potential impact to the surrounding environment	Contractor
Dust	Air pollution (solid particles)	At and near construction site	Inspection and visual observation	Prior to construction works and prior to material delivery	Identify eny potential impact to the surrounding environment	Contractor
CONSTRUCTION			**Material supply**			
Quarry	Possession of an official approval or valid (operating) license	quarry	insight into the documentation	prior to the commencement of works	ensure compliance of the plant with environmental and social protection and health and safety at work	Quarry manager / Supervision
Sand and gravel borrow pit	Possession of an official approval or valid (operating) license	sand and gravel borrow pit	insight into the documentation	prior to the commencement of works	ensure compliance of the plant with environmental and social protection and health and safety at work	Borrow pit or separation facility manager / Supervision
CONSTRUCTION			**Material transport**			
Stone	truck load covered or wetted	job site	supervision	unannounced inspections during work, at least once per week	and safety requirements and enable as	Supervision Contractor

Phase	What is the *parameter to be monitored?*	Where *the parameter should be monitored?*	How *the parameter should be monitored? / type of monitoring equipment*	When *the parameter should be monitored? (Frequency of measurement or continuous)*	*Why the parameter should be monitored? (optional)*	Institutional responsibility Operate
Sand and gravel	truck load covered or wetted	job site	supervision	unannounced inspections during work, at least once per week	little disruption to traffic as it is possible	Supervision Contractor
Traffic management	hours and routes selected	job site	supervision	unannounced inspections during work, at least once per week		Supervision Contractor
CONSTRUCTION			**Construction Site**			
Cultural goods and archaeological findings	presence of archaeological findings in the soil	at and near the Construction site	supervision of earthworks	Archaeological Supervision by the competent IPCM if required by the preconditions	for the sake of preservation of cultural heritage	Contractor Supervision (Monitoring), if engaged, archaeological Supervision
Rehabilitation/ Reconstruction/ Repair	degradation and soil pollution	at the construction site and directly around the construction site	visual supervision	weekly	for prevention of soil degradation and pollution	Supervision
Rehabilitation/ Reconstruction/ Repair	does the construction site meet the criteria from the guidelines for good construction practice	at the construction site	visual supervision. Insight into the documentation	during the works execution	for the purpose of establishing a safe working environment	Supervision
Rehabilitation/ Reconstruction/ Repair	occurrence of noise and air pollution	at the works execution location	standard air quality and noise level measurement equipment.	upon received citizens' complaints	for minimizing noise and air pollution	Contractor - Company that has licence to perform environment monitoring works

Phase	What is the *parameter to be monitored?*	Where *the parameter should be monitored?*	How *the parameter should be monitored? / type of monitoring equipment*	When *the parameter should be monitored? (Frequency of measurement or continuous)*	*Why the parameter should be monitored? (optional)*	Institutional responsibility
						Operate
Rehabilitation/ Reconstruction/ Repair	destruction of crops, woods, meadows etc.	at the works execution location and in the vicinity	visually	upon received citizens' complaints	for prevention of destruction of crops, woods, meadows etc.	Supervision
Rehabilitation/ Reconstruction/ Repair	working hours control.	at the works execution location	visually and comparison with the construction site organisation plan.	upon received citizens' complaints	for respecting workers working hours and mitigating social and environmental impacts	Supervision
Rehabilitation/ Reconstruction/te management during the works execution	at the construction site	visually and by comparison with the waste management report.	permanently	for ensuring proper waste management	Supervision	
Rehabilitation/ Reconstruction/ Repair	existence of zones/sites for preliminary accumulation of wastes	at and near work site	inspection	during construction works	preventing pollution of water and soil because of improper disposal of excavated materials and construction wastes	Contractor, Supervision
Rehabilitation/ Reconstruction/ Repair	waste remnants and soil degradation	at the project location	visually	after the works completion	Ensuring that the site has been returned to quasi-original conditions, upon Constriction site closure	Contractor, Supervision
Rehabilitation/ Reconstruction/ Repair	number of registered accidents existence of hygienic conditions for workers, Protective equipment application	at the construction site	visually and insight into the register	permanently during the works execution	ensuring adequate health and safety and working conditions, ensuring works execution in accordance with relevant labor legislation	Contractor, Supervision

Phase	What is the *parameter to be monitored?*	Where *the parameter should be monitored?*	How *the parameter should be monitored? / type of monitoring equipment*	When *the parameter should be monitored? (Frequency of measurement or continuous)*	*Why the parameter should be monitored? (optional)*	Institutional responsibility Operate
Rehabilitation/ Reconstruction/ Repair	impact on population due to the limitation of business activity and right to use land	local community	insight into the register	upon received citizens' complaints	for the purpose of minimizing social impacts	project applicant
Rehabilitation/ Reconstruction/ Repair	quality of executed works Quality of material that is installed	at the construction site	visual monitoring and through register	permanently during the works execution and construction site removal	ensuring adequate quality of executed works	Supervision
Rehabilitation/ Reconstruction/ Repair	clear delineation of access roads and work sites to prevent their expansion	at access roads and work sites	inspection, observation	during construction works	prevent loss of top soil due to temporary access roads and work areas, Landscape degradation	Contractor, Supervision
	cleaning of access roads and work sites after construction works completion	at access roads and work sites	inspection, Observation	after construction works		Contractor, Supervision
	restoration of landscape to quasi-original condition after completion of works and after use of quarries	at work site and quarries	unannounced Inspection	after works completion.		PMU Environmental Specialist
Rehabilitation/ Reconstruction/ Repair	sprinkling of water to suppress the dust	at access roads and work sites	inspection, observation	during construction works	preventing temporary air pollution (dust) related to the transportation of construction materials and truck traffic	Contractor, Supervision

Phase	What is the *parameter to be monitored?*	Where *the parameter should be monitored?*	How *the parameter should be monitored? / type of monitoring equipment*	When *the parameter should be monitored? (Frequency of measurement or continuous)*	*Why the parameter should be monitored? (optional)*	Institutional responsibility Operate
Rehabilitation/ Reconstruction/ Repair	termination of construction works at the established time (e.g. work on daylight hours)	at access roads and work sites	inspection, observation	during construction works	preventing noise and vibration disturbances	Contractor, Supervision
	measure noise levels (Db)	at and near the work site	inspection	during construction works		Contractor, Supervision
Rehabilitation/ Reconstruction/ Repair	use of protective equipment, organization of by-passing traffic	at work site	inspection	during construction works	increasing staff safety	Contractor, Supervision
Dust	air pollution (solid particles)	at and near job site	inspection and visual observation	unannounced inspections during material delivery and construction	health and safety requirements and enable as little disruption to traffic as it is possible	Contractor, Supervision
Worker's rights	proof of lawful employment	job site/Contractor's office	inspection	unannounced inspections during works execution	ensure worker's enjoy rights guaranteed by Law	Labor Inspection
OPERATION			**Safety during flow regulation works**			
Increased vehicle speed	condition of traffic signs; vehicle speed	Approach roads to the construction site	visual observation; speed detectors	unannounced	enable safe traffic flow	Traffic Police
Erosion, rockfall, hazardous conditions	section included in project	condition of hazard signs	visual observation	during maintenance activities		Contractor

6. ENVIRONMENTAL AND SOCIAL MANAGEMENT RESPONSIBILITIES

For each potential impact the ESMP identifies:

- the proposed mitigation measure(s); and
- the parties or agencies charged with implementing those measures, separated into:

- Executing agencies responsible for executing the measure. For this specific assignment the executing agencies (e.g. contracted design institutes) shall ensure that all necessary agreements and permits (e.g. EIA conclusion, permits for water use and discharge and for the disposal of excavated materials, wastes, and demolition debris) are obtained from relevant state and local authorities before the construction works are tendered out. Construction contractors shall take the responsibility for physical implementation of mitigation measures provided under the ESMP during the construction phases according to the Bank's Environmental and Social Standards and Serbia environmental legislation.
- Supervising agencies responsible for supervising the executing agencies to ensure that they execute the mitigation measures as planned. The Directorate of Water and Sava and Drina River Corridors Integrated Development Program Project Management Unit (PMU) will be responsible for supervising the timely, proper and reliable implementation of works and measures in the consequence provided by the ESMP. PMU will also ensure that all necessary agreements and permits are obtained by appropriate contractors from relevant state and local authorities before the construction works are tendered out. The World Bank during supervision missions may request randomly to check if such permits are issued and are valid (e.g., not expired) as well as if the ESMP mitigation and monitoring aspects are implemented on the ground during the construction phases according to the Bank's Environmental and Social Standards and Serbia environmental legislation.
- Various Ministries give different permits. Ministry of Finance together with Ministry of Construction, Traffic and Infrastructure and Ministry of Environmental Protection control License process for works. MAFWM with Directorate of Water, The Public Water Resources Management Companies "Srbijavode", "Beogradvode" and "Vode Vojvodine" providing preparation of water resources management technical documentation, different kind of license requested for works and supervise construction, organization and implementation of water pollution protection measures. Hydro meteorological Institute takes water samples and monitors the quality of water.

6.1. Environmentally sound clauses for civil works contracts

Most construction phase impacts will be possible to mitigate by including appropriate clauses into the civil works contracts. Revisions of clauses should cover, but not limited to, the following issues:

- Compliance with general national environmental guidelines;
- Compliance with relevant World Bank Environmental and Social Standards;
- Protection of Historic-cultural monuments;
- Adequate disposal of construction and excavation wastes;
- Proper location of construction camps;
- Restoration of the quasi-original conditions of landscape in construction sites after works completion;
- Occupational safety and health (Consultants and contractors working on the program will be required to adhere to all applicable laws and regulations controlling workplace health and safety), etc.

Construction works contracts should include this ESMP with its Environmental and Social Mitigation Plan and Environmental and Social Monitoring Plan presented within the chapter 4 and chapter 5 of this ESMP document. This ESMP document will be a part of the bidding and contractual documents for which the contractor hired will be responsible to implement and to ensure that all works are completely conducted in a manner which will not generate negative impacts to the environment. The works Supervisor will ensure compliance with the ESMP listed measures and provide reports on compliance.

7. IMPLEMENTATION ARRANGEMENTS

The Regional Steering Committee together with the Regional Coordination Unit will be responsible for policy advocacy and coordination at a regional level, while at a national level the two PMUs formed in the Water Directorate and the Ministry of Construction, Transport and Infrastructure will be responsible for project management functions and day to day operations.

While the National PMUs will be primarily responsible for M&E in respective countries, the **International Sava River Basin Commission (ISRBC)** will be responsible for overall monitoring and evaluation (M&E) implementation and coordination between the riparian countries and will serve as a liaison with the WB at the regional level and PMUs in each of the riparian countries/entities. An integrated Management Information System (MIS) system will be developed and implemented as part of the program to support PMUimplementation and reporting.

8. MONITORING AND REPORTING ARRANGEMENTS

8.1. SDIP Project Monitoring

The SDIP project will be monitored by PMUs under the DWM and MCTI. Information and data collected at each of the implementation agencies will be fed into overall M&E. The ISRBC and PMUs will collect and present data and reports for semi-annual reviews by the Regional Committee and respective National institutions responsible for project implementation, in conjunction with Bank missions.
The Construction contractor is obliged to perform all monitoring activities (sampling, measurement, etc.) prescribed within the Monitoring Plan of ESMP document produced for project on which the Contractor is engaged.

Supervision Consultant is responsible to monitor all construction activities, including environmental protection during project rehabilitation. PSC will be authorized to perform additional sampling in case he finds this needed.

8.2. Environmental Monitoring Plans

Monitoring plan for SDIP projects should be in respect of the bidding documents. The main components of the monitoring plans include:

- Environmental and social issues to be monitored and the means of verification
- Specific areas, locations and parameters to be monitored;
- Applicable standards and criteria;
- Monitoring of the procurement of materials (checks that valid permits are in place)
- Duration
- Institutional responsibilities for monitoring and supervision

8.3. Reporting Arrangements

8.3.1. Contractor to PMU

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

Construction Contractor will provide quarterly reports to PMU which document the environmental mitigation and protection measures, together with prescribed monitoring activities carried out during that quarter's reporting period. Construction Contractor will take care of the environment quality according to the mitigation and monitoring plan which are part of ESMP.

The same applies to the Environmental Monitoring and Supervision Contractors for their part of mitigation and environmental monitoring activities.
If any kind of accident or endangerment of environment happens, reporting will be immediate. PMU and the Contractor have joint responsibility for reporting and investigating incidents. The Contractor is obliged to inform the project manager and local authorities about accident immediately after it happened.

8.3.2. Project Supervision Consultant to PMU

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

8.3.3. PMU to MAFWM, MCTI, WB, Semi-Annual Environmental & Social Report

Each Contractor is obliged to produce and deliver to PMU an Semi-Annual Environmental and Social Report covering all project activities during 6 month period PMU shall provide Semi-Annual reports to MAFWM and WB regarding the status of implementation of mitigation measures by the Contractors, additional mitigation measures that may need to be implemented, incidents of non-compliance with applicable environmental permits, complaints received from local residents, NGOs, etc. and how these were addressed. In case of fatalities or major incidents on site the PMU will immediately report to WB.
Monitoring and compliance in accordance with ESMF and site specific ESMPs, including monitoring of implementation of site-specific measures on each sub-project/section during project implementation will be undertaken by PMU and its implementation unit, and reported in writing to the Bank on semi-annual basis. Environmental and social specialists are appointed to the Project by PMU to ensure quality in the implementation of ESMPs.

9. PUBLIC CONSULTATIONS AND PUBLIC DISCLOSURE OF THE ESMP

In accordance with WB ESS 10 a draft version of ESMP will be publicly disclosed on the Ministry of Agriculture and Environmental Protection, the Directorate of Water web site and in the city of Sremska Mitrovica during February 2021, for a disclosure period of two weeks. The public consultation meeting will be held in the city of Sremska Mitrovica or on-line depending on the COVID-19 imposed restrictions.

10. REFERENCES

01 Conceptual Design, Rehabilitation of the left bank of the Sava River at Jarak, rkm 121+277 to rkm 123+350 (L = 2.073 km), “Hidrozavod dtd” Novi sad, March 2019

02 Plan for detailed regulation of the river bankal area of the left bank of the Sava River, Official Gazette of the City of Sremska Mitrovica 14/1 from 2016

03 Resettlement Action Plan for Jarak project, PMU, 2019

04 Constructions permit, City of Sremska Mitrovica, October 2021.

05 Constructions permit, City of Ruma, November 2021.

06 Data on the waterway, MCTI - Directorate of Waterways, December 2018

07 Preconditions of the Institute for the Protection of Cultural Monuments Sremska Mitrovica, Dec 2018

08 Opinion in the procedure of issuing water conditions, JVP "Vode Vojvodine" February 2019

09 The World Bank Environmental and Social Framework, 2018

10 Project Appraisal Document, PAD3402, Sava Drina River Corridors Integrated Development Program, 2019

11 Project Information Document, PIDC25739, Project Information Document (Concept Stage) - Sava Drina River Corridors Integrated Development Program – P168862, February 2019

12 Environmental and Social Management Framework, ESMF, Sava Drina River Corridors Integrated Development Program – P168862, October 2019

13 Resettlement Policy Framework, RPF, Sava Drina River Corridors Integrated Development Program – P168862, October 2019

14 Environmental Assessment Sourcebook No 25, Environmental and Social Management Plans, The World Bank Environment Department, January 1999

Annex 1

RELEVANT NATIONAL LEGISLATION AS OF JANUARY 2022

MAIN SERBIAN LEGISLATION:

ANNEX 1: RELEVANT NATIONAL LEGISLATION AS OF JANUARY 2022

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

01 Constitution of the Republic of Serbia ("Official Gazette of RS" No. 98/06).
02 National Sustainable Development Strategy ("Official Gazette of RS" No. 72/09, 81/09)
03 Law on planning and construction ("Official Gazette of RS" No. 72/09, 81/09, 64/10, 24/11, 121/12, 42/13, 50/13, 98/13, 132/14, 145/14, 83/18, 31/19, 37/19, 9/20, 52/21)
04 Law on nature protection ("Official Gazette of RS", 36/09, 88/10, 91/10, 14/16, 95/18, 71/21)
05 Law on environmental protection ("Official Gazette of RS" No. 135/04, 36/09, 72/09, 43/11, 14/16, 76/18, 95/18)
06 Law on EIA ("Official Gazette of RS" No. 135/04, 36/09)
07 Law on Strategic EIA ("Official Gazette of RS" No. 135/04, 88/10)
08 Law on waste management ("Official Gazette of RS", 36/09, 88/10, 14/16, 95/18)
09 Law on environmental noise protection ("Official Gazette of RS", 96/21)
10 Law on water ("Official Gazette of RS", 30/10, 93/12, 101/16, 95/18)
11 Law on forest ("Official Gazette of RS", 30/10, 93/12, 89/15, 95/18)
12 Law on air protection ("Official Gazette of RS", 36/09, 10/13, 26/21)
13 Law on Safety and Health at Work ("Official Gazette of RS", 101/05, 91/15, 113/17)
14 Agricultural Land Law, ("Official Gazette of RS" No. 62/06, 65/08, 41/09, 112/15, 80/17, 95/18)

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

15 Regulation 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)
16 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)
17 Rulebook on the procedure of public inspection, presentation and public consultation about the EIA Study ("Official Gazette of RS" No. 69/05)
18 Rulebook on the work of the Technical Committee for the EIA Study ("Official Gazette of RS" No. 69/05)
19 Rulebook on methodology for determination of acoustic zone ("Official Gazette of RS" No. 72/10)
20 Regulation on establishing class of water bodies ("Official Gazette of SRS" No. 5/68)
21 Regulations on dangers pollutants in waters ("Official Gazette of SRS" No. 31/82)

Regulation on Labour, Working Conditions and Gender equality

22 Labor Law ("Official Gazette of RS" No. 24/05, 61/05, 54/09, 32/13, 75/14, 13/17 , 113/17 and 95/18)
23 Law on Civil Servants ("Official Gazette of RS" No. 79/05, 81/05, 83/05, 64/07, 67/07, 116/08, 104/09, 99/14, 94/17, 95/18, 157/20)
24 The Law on Peaceful Settlement of Labor Disputes ("Official Gazette of RS" No. 125/04, 104/09, 50/18)
25 Law on Employment and Unemployment Insurance ("Official Gazette of RS" No. 36/09, 88/10, 38/15, 113/17, 49/21)

26 Law on Employment of Foreign Citizens (“Official Gazette of RS” No. 128/14, 113/17, 50/18, 31/19)
27 Law on Retirement and Disability Insurance (“Official Gazette of RS” No. 34/03, 64/04, 84/04, 85/05, 101/05, 63/06, 5/09, 107/09, 101/10, 93/12, 62/13, 108/13, 75/14, 142/14, 73/18 and 46/19, 86/19, 62/21)
28 Law on Health Insurance (“Official Gazette of RS” No. 25/19)
29 Law on the Prohibition of Discrimination (“Official Gazette of RS” No. 22/09, 52/21)
30 Law on the Prevention of Harassment at the Workplace (“Official Gazette of RS” No. 36/10)
31 Rulebook on Conduct of Employers and Employees in Relation to Prevention and Protection from Harassment at Work (“Official Gazette of RS” No. 62/10)
32 Law on Protection of Whistle Blowers (“Official Gazette of RS” No. 128/14)
33 Law on Gender Equality (“Official Gazette of RS” No. 52/21)

Other relevant Serbian legislation

34 Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area (“Official Gazette of RS”, 38/09)
35 European Environment and Health Committee. Serbia. Copenhagen, WHO Regional Office for Europe, 2006 (http://www.euro.who.int/eehc/implementation/20061010_9 accessed 29 December 2009).
36 National Assembly. Law on Management of Chemicals. Official Gazette of the Republic of Serbia, 2009, No. 36/09.
37 National Assembly. Law on Biocidal Products. Official Gazette of the Republic of Serbia, 2009, No. 36/09.
38 National Assembly. Law on Integrated Pollution Prevention and Control. Official Gazette of the Republic of Serbia, No. 135/04 (http://www.basel.int/legalmatters/natleg/serbia-04e.pdf, accessed 11 January 2010).

Annex 2

PRECONDITIONS OBTAINED FROM RELEVANT INSTITUTIONS

ANNEX 2: PRECONDITIONS OBTAINED FROM RELEVANT INSTITUTIONS

A) Water Directorate

Јавно водопривредно предузеће
»ВОДЕ ВОЈВОДИНЕ«
НОВИ САД
Примљено: 24 DEC 2018
Орг. јед. | Број | Прилог | Вредност
1 | 6/374 |

Република Србија
Министарство грађевинарства,
саобраћаја и инфраструктуре
Дирекција за водне путеве
Београд, Француска 9

Број: 11/213-1
Датум: 20 DEC 2018

ЈВП „ВОДЕ ВОЈВОДИНЕ“

Служба за заштиту од спољних вода

Булевар Михајла Пупина 25
21000 Нови Сад

Веза: Захтев бр.I-6/361 од 11.12.2018.год.,заведен под бројем 11/213 дана 17.12.2018.год.

Предмет: Захтев за издавање података о пловном путу на реци Сави у зони деонице од ркм 121+277 до ркм 123+350

Поштовани,

Поводом вашег дописа, број I-6/361 од 11.12.2018. године, достављамо вам релевантне податке са којима располаже Дирекција за водне путеве, које можете користити искључиво за потребе израде Идејног пројекта санације леве обале Саве, од km 153+060 до km 151+300, код Јарка.

Пловни пут на разматраној деоници реке Саве има статус међународног пловног пута (класа IV), који је дефинисан прописаним габаритима. Захтеване вредности параметара габарита пловног пута за предметну деоницу реке Саве су:

- Дубина пловног пута у односу на ниски пловидбени ниво (ЕН), при редукованом газу (94% трајање) 2,3m
- Дубина пловног пута у односу на ниски пловидбени ниво (ЕН), за пловидбу са пуним газом (60% трајање) - са брзинским утонућем и тримом + апсолутна резерва 3,3m
- Ширина пловног пута при ЕН, у правцу..... 55m
- Ширина пловног пута при ЕН, у кривини 75m
- Минимални радијус кривине пловног пута..... 360m

Тел. 011 3029 801
Факс: 011 3029 808
www.plovput.gov.rs
office@plovput.gov.rs

Ниски пловидбени ниво (ЕН) у предметној зони, на km 123+350, износи 72,29 mnm.

Положај пловног пута у предметној зони реке Саве, као и правци профила (са назначеном речном стационажом) су достављени пројектанту у електронској форми (DWG формат), дана 20. децембра 2018. год., на адресу: srdjan.nikoletic@hidrozavoddtd.rs
Законом о пловидби и лукама на унутрашњим водама ("Службени гласник РС", број 41/2018), Члан 37. регулисано да „Пре почетка израде техничке документације за изградњу, реконструкцију, доградњу, адаптацију и санацију преводница, пловних канала и других хидротехничких објеката (обалоутврда, напера, паралелних грађевина са траверзама, преграда, прагова, каскада, шеврона, кејских зидова, мостова), за постављање каблова и цевовода, као и других објеката од утицаја на безбедност пловидбе на међународним и међудржавним водним путевима у складу са законом којим се уређује планирање и изградња, потребно је прибавити наутичке услове за пројектовање које издаје лучка капетанија и услове за пројектовање који се односе на водне путеве које издаје Дирекција.[1]“ Ови услови прибављају се у оквиру обједињене процедуре у поступцима за издавање аката у остваривању права на изградњу, која је прописана законом којим се уређује планирање и изградња, са роком важења од две године.

С поштовањем,

В.Д. ДИРЕКТОР

Љубиша Михајловић

Доставити:
- Именованом
- Архиви
- Групи 2/2

[1] Министарство грађевинарства, саобраћаја и инфраструктуре – Дирекција за водне путеве, прим.аутора

B) Preconditions obtained from IPCM

ВВеоб

Јавно водопривредно предузеће
»ВОДЕ ВОЈВОДИНЕ«
НОВИ САД
Примљено 27 DEC 2018
Орг. јед. | Број 6/387 | Прилог | Вредност

ЗАВОД ЗА ЗАШТИТУ
СПОМЕНИКА КУЛТУРЕ
СРЕМСКА МИТРОВИЦА
Број: 610-07/18-3
Датум: 24.12.2018. године

Завод за заштиту споменика културе Сремска Митровица, на основу чл. 99. став 2. тачка 1., 100. став 1. и 104. Закона о културним добрима ("Сл. Гласник РС" бр. 71/94) и члана 104 став 1. тачка 1. Закона о општем управном поступку ("Службени гласник РС" број 18/2016), а на захтев Јавног водопривредног предузећа "Воде Војводине" из Новог Сада, Булевар Михајла Пупина број 25, доноси

Р Е Ш Е Њ Е

I Услови и мере техничке заштите - за израду Идејног пројекта санације леве обале Саве, од ркм 121+277 до ркм 123+350 код Јарка, могу се предузети на основу следећих услова:

-обавезан археолошки надзор на читавој деоници обалоутврде на левој обали Саве од ркм 121+277 до ркм 123+359 приликом извођења земљаних радова;

-археолошки надзор обавиће стручњаци Завода за заштиту споменика културе у Сремској Митровици;

-ако се у току извођења грађевинских и других радова наиђе на археолошка налазишта или археолошке предмете извођач радова је дужан да одмах, без одлагања прекине радове и о томе обавести Завод за заштиту споменика културе у Сремској Митровици, као 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, а све у складу са чланом 109. став 1. Закона о културним добрима;

-Инвеститор је у обавези да обустави радове уколико наиђе на археолошка налазишта или археолошке предмете од изузетног значаја, ради истраживања локације;

-Инвеститор је дужан да обезбеди средства за праћење, истраживање, заштиту и чување пронађених остатака који уживају претходну заштиту.

II Радови морају бити изведени у свему у складу са издатим условима из тачке I овог решења.

III Обавезује се Инвеститор да најкасније 45 дана пре почетка извођења земљаних радова на изградњи обалоутврде обавести Завод ради спровођења археолошког надзора. Трошкови истраживања и археолошког надзора са контролом земљаних радова и израдом теренске документације за предметну локацију обрачунати су у оквиру програма заштите.

IV Ово решење не ослобађа подносиоца захтева обавезе прибављања и других услова, сагласности и дозвола предвиђених прописима о изградњи објеката и планирању и уређењу простора и насеља.

V Жалба не одлаже извршење овог решења.

О б р а з л о ж е њ е

Јавно водопривредно предузеће "Воде Војводине" из Новог Сада, Булевар Михајла Пупина број 25, поднело је под бројем I-6/363 од 11.12.2018. године захтев овом Заводу за добијање услова и мера техничке заштите за израду Идејног пројекта санације леве обале Саве, од ркм 121+277 до ркм 123+350 код Јарка.

На основу увида у документацију овог Завода утврђено је да се у непосредној близини трасе обалоутврде налазе два археолошка локалитета који уживају статус претходне заштите и то локалитет Јарчина-ушће у Јарку и локалитет Гомолава некропола у Хртковцима.

Са изложеног решено је као у диспозитиву.

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

Доставити:
подносиоцу;
документацији;
архиви.

в. д. Директора

Љубиша Шулаја

C) Republic Hydrometeorological Service of Serbia

ПРИЛОГ 1

Меродавни протоци који одговарају стогодишњој великој води, средњој води и 95% малој води и њихове кореспондентне нивое

Хид. ст: Сремска Митровица
Река: Сава
Шифра ст: 45090

Кота "0" [m н.J.м]: 72,22
Кота "0" [km]: 139,24
Кота "0" [km^2]: 87996

	Проток	Водостај	
	[m^3/s]	[cm]	[m н.J.м]
Стогодишња велика вода	6900	885	81.07
Средња вода	1563	285	75.07
95% мала вода	277	-9	72.13

ПРИЛОГ 2

Резултати хидрометријски мерења у профилу станице Сремска Митровица река Сава

Р.бр.	Датум	Проток [m^3/s]	Средња брзина [m/s]
1	9/23/2011	179	0.116
2	10/13/1946	217	0.191
3	10/22/1947	248	0.202
4	10/10/1961	306	0.196
5	7/20/1993	354	0.348
6	10/11/1990	402	0.381
7	7/27/1988	450	0.476
8	7/26/2002	503	0.325
9	7/11/2008	555	0.354
10	8/25/2010	612	0.345
11	6/1/2000	645	0.407
12	11/17/2005	696	0.427
13	6/21/2011	753	0.419
14	6/11/1990	804	0.575
15	11/21/2008	852	0.532
16	8/21/1991	914	0.608
17	7/21/1981	954	0.58
18	8/31/1995	994	0.672
19	6/29/2006	1050	0.509
20	5/21/2009	1100	0.59
21	11/16/1996	1150	0.658
22	6/29/2009	1190	0.625
23	6/18/2013	1240	0.635
24	3/18/2002	1290	0.728
25	5/28/2001	1350	0.767
26	10/27/2017	1410	0.762
27	6/3/1981	1440	0.68
28	9/23/2005	1500	0.774
29	5/18/2018	1540	0.808
30	5/12/2017	1600	0.782
31	6/18/2004	1660	0.871
32	12/17/2004	1700	0.891
33	3/27/2012	1750	0.86
34	11/5/1990	1810	0.824
35	4/29/2008	1840	0.858
36	3/29/1995	1900	0.867
37	2/27/2004	1940	0.982
38	3/5/2001	2000	1.007
39	4/20/2000	2070	0.98
40	6/18/1976	2100	0.82
41	9/24/2001	2150	1.034
42	9/22/1995	2200	0.873
43	10/22/1980	2260	0.824
44	9/24/2010	2290	0.982
45	36981	2390	1.119
46	40325	2440	0.939
47	35459	2500	1.166

Р.бр.	Датум	Проток [m^3/s[	Средња брзина [m/s]
48	5/21/2012	2540	1.084
49	11/23/2004	2620	1.192
50	3/28/1985	2660	0.942
51	5/9/1989	2710	0.949
52	2/25/2014	2770	1.153
53	2/2/2001	2810	1.254
54	4/14/1988	2930	0.902
55	4/21/1993	3000	0.943
56	4/28/2006	3040	1.03
57	4/25/2002	3110	1.357
58	10/10/1984	3150	0.982
59	4/1/2015	3180	1.26
60	4/13/1992	3260	1.006
61	3/14/2017	3290	1.262
62	11/20/1992	3350	1.045
63	3/1/2013	3380	1.288
64	3/25/1988	3530	1.026
65	12/21/1993	3620	1.031
66	2/25/2010	3650	1.294
67	12/28/2009	3700	1.436
68	12/4/1976	3750	1.05
69	4/24/1985	3840	1.005
70	3/20/2013	3880	1.343
71	4/29/2014	3920	1.414
72	3/31/1988	4000	1.054
73	6/30/2010	4050	1.393
74	11/20/1991	4100	1.111
75	5/8/2014	4150	1.427
76	3/15/2016	4190	1.37
77	5/11/1987	4260	1.107
78	4/14/2004	4280	1.579
79	4/29/2004	4360	1.439
80	3/30/2018	4400	1.552
81	4/6/2013	4430	1.501
82	3/23/2018	4530	1.518
83	4/15/2004	4620	1.649
84	10/24/1974	4630	1.286
85	11/2/1974	4700	1.285
86	1/12/2010	4770	1.588
87	4/15/2004	4830	1.617
88	4/16/2004	4940	1.701
89	3/31/2005	5120	1.766
90	5/22/2014	5280	1.543
91	10/25/1974	5410	1.431
92	1/21/1970	5710	1.475
93	10/28/1974	5960	1.582
94	10/29/1974	6000	1.589

Annex 3

CONSTRUCTION PERMITS

ANNEX 3 CONSTRUCTION PERMIT

A) Construction Permit obtained from Sremska Mitrovica municipality

РЕПУБЛИКА СРБИЈА
АУТОНОМНА ПОКРАЈИНА ВОЈВОДИНА
ГРАД СРЕМСКА МИТРОВИЦА
ГРАДСКА УПРАВА ЗА УРБАНИЗАМ, ПРОСТОРНО ПЛАНИРАЊЕ И ИЗГРАДЊУ ОБЈЕКАТА
Број предмета: ROP-SMI-35116-ISAW-1/2021
Датум: 18.10.2021. године

Градска управа за урбанизам, просторно планирање и изградњу објеката Града Сремска Митровица, решавајући по захтеву који је поднело ЈАВНО ВОДОПРИВРЕДНО ПРЕДУЗЕЋЕ "ВОДЕ ВОЈВОДИНЕ" Нови Сад, Булев Михајла Пупина број 25, у предмету издавања решења за извођење радова на санацији леве обале Саве у Јарку, на основу члана 145. став 1, Закона о планирању и изградњи („Службени гласник РС“ број 72/2009, 81/2009-исправка, 64/2010-одлука УС, 24/2011, 121/2012, 42/2013- одлука УС, 50/2013-одлука УС, 98/2013-одлука УС, 132/2014, 145/2014, 83/2018, 31/2019, 37/2019, 9/2020 и 52/2021), члана 28. Правилника о поступку спровођења обједињене процедуре електронским путем („Службени гласник РС“ број 68/2019), члана 12 и 30 Одлуке о градским управама ("Службени лист града Сремска Митровица" бр.30/2020), члана 3. Правилника о посебној врсти објеката и посебној врсти радова за које није потребно прибављати акт надлежног органа, као и врсти објеката који се граде, односно врсти радова који се изводе, на основу решења о одобрењу за извођењу радова, као и обиму и садржају и контроли техничке документације која се прилаже уз захтев и поступку који надлежни орган спроводи („Службени гласник РС“ број 102/2020 и 87/2021) и члана 136. Закона о општем управном поступку („Службени гласник РС“ број 18/2016 и 95/2018-аутентично тумачење), доноси

РЕШЕЊЕ

Одобрава се инвеститору ЈАВНО ВОДОПРИВРЕДНО ПРЕДУЗЕЋЕ "ВОДЕ ВОЈВОДИНЕ" Нови С Булевар Михајла Пупина број 25, извођење радова на санацији леве обале Саве од ркм 121+277 до ркм 123+350 код Јарка, катастарске парцеле 1371/16, 1549/1, 2593, 2641, 2642, 2643, 2653/2 и 2665 к.о. Јарак.

Идејни пројекат инжењерског објекта број Е-72/18, од марта 2019. године и Елаборат о геотехничким условима санације број Е-72/18 од 2019. године и главна свеска, израђени од стране А.Д. "Хидрозавод ДТД" Нови Сад, Петра Драпшина 56, саставни су део овог решења.

Предрачунска вредност радова износи 1.171.222.528,2 динара.

Решење о одобрењу извођења радова престаје да важи ако се не изврши пријава радова у року од три године од дана правноснажности решења којим је одобрено извођење радова.

Инвеститор је дужан да поднесе пријаву радова органу који је издао решење о одобрењу за извођење радова пре почетка извођења радова.

Образложење

ЈАВНО ВОДОПРИВРЕДНО ПРЕДУЗЕЋЕ "ВОДЕ ВОЈВОДИНЕ" Нови Сад, Булевар Михајла Пупина број преко централног информационог система, поднело је дана 11.10.2021. године овој Управи захтев за одобрење за извођење радова на санацији леве обале Саве у Јарку.

Провером испуњености формалних услова за даље поступање по захтеву у поступку спровођења обједињене процедуре електронским путем, утврђено је да је захтев достављен у прописаној форми и да је достављена документација прописана чланом 28 и 29 Правилника о спровођењу обједињење процедуре електронским путем и то:

1. Идејни пројекат инжењерског објекта број Е-72/18, од марта 2019. године (део 1.2 и део 2.2), израђен од стране А.Д. "Хидрозавод ДТД" Нови Сад, Петра Драпшина 56,
2. Елаборат о геотехничким условима санације израђен од стране А.Д. "Хидрозавод ДТД" Нови Сад, Петра Драпшина 56,
3. Главна свеска број Е-72/18, од марта 2019. године (део 1.2 и део 2.2), израђен од стране А.Д. "Хидрозавод ДТД" Нови Сад, Петра Драпшина 56,
4. Пуномоћје,
5. Доказ о уплати накнаде за ЦЕОП,
6. Доказ о уплати републичке административне таксе за захтев и за решење,
7. Доказ о уплати градске таксе.

Увидом у достављену документацију утврђено је да су испуњени формални услови за даље поступање.

Како је након спровођења поступка утврђено да је инвеститор уз захтев за издавање Решења о одобрењу за извођење радова, поднео сву потребну документацију из члана 145. Закона о планирању и изградњи и члана 28. и 29. Правилника о спровођењу обједињене процедуре електронским путем, овај орган је донео решење као у диспозитиву.

ПРАВНА ПОУКА:Против овог решења може се изјавити жалба Покрајинском секретаријату за енергетику, грађевинарство и саобраћај у Новом Саду у року од 8 дана од дана достављања овог решења. Жалба се предаје путем ове управе и таксира са 490,00 динара административне таксе.

НАЧЕЛНИК

Весна Вујановић, дипл. правник

B) Construction Permit obtained from Ruma municipality

РЕПУБЛИКА СРБИЈА
Аутономна Покрајина Војводина
ОПШТИНА РУМА
ОПШТИНСКА УПРАВА
ОДЕЉЕЊЕ ЗА УРБАНИЗАМ И ГРАЂЕЊЕ
ОДСЕК ЗА СПРОВОЂЕЊЕ ОБЈЕДИЊЕНЕ ПРОЦЕДУРЕ
Број предмета: ROP-RUM-35111-ISAW-1/2021
Заводни број: 351-915/21
Датум: 01.11.2021. године
Република Србија

На основу члана 145. Закона о планирању и изградњи ("Сл. гласник РС", бр. 72/2009, 81/2009 - испр., 64/2010 - одлука УС, 24/2011, 121/2012, 42/2013 - одлука УС, 50/2013 - одлука УС, 98/2013 - одлука УС, 132/2014, 145/2014, 83/2018, 31/2019, 37/2019-др. закон и 9/2020), члана 3. Правилника о посебној врсти објеката и посебној врсти радова за које није потребно прибављати акт надлежног органа, као и врсти објеката који се граде, односно врсти радова који се изводе, на основу решења о одобрењу извођења радова, као и обиму и садржају и контроли техничке документације која се прилаже уз захтев и поступку који надлежни орган спроводи (Сл. Гласник РС, бр. 102/2020), члана 136. Закона о општем управном поступку ("Сл. Гласник РС", бр. 18/2016 и 95/2018), члана 27. и члана 28. Правилника о поступку спровођења обједињене процедуре електронским путем ("Сл. гласник РС", бр. 68/2019), члана 3. и члана 15. Одлуке о Општинској управи Општине Рума ("Сл. лист општина Срема", бр. 37/16), Одељење за урбанизам и грађење Општинске управе Општине Рума, решавајући по захтеву инвеститора, ЈВП „Воде Војводине“ ПИБ: 102094162 из Новог Сада, Булевар Михајла Пупина бр. 25, поднетом од стране овлашћеног лица, Приор Божане из Новог Сада, доноси:

РЕШЕЊЕ

ОДОБРАВА СЕ ИНВЕСТИТОРУ ЈВП „Воде Војводине“ ПИБ: 102094162 из Новог Сада, Булевар Михајла Пупина бр. 25, извођење радова на санацији леве обале реке Саве од ркм 121+277 до ркм 123+350 у Хртковцима, на катастарским парцелама број: 3617/2, 4387, 4507/1 и 4508 све к.о. Хртковци.

Предрачунска вредност радова износи 1.171.222.528,20 динара.

Саставни део Одобрења за извођење радова:

- За објекте јавне намене у јавној својини не обрачунава се допринос за уређивање грађевинског земљишта, а у складу са чланом 97. став 8. Закона о планирању и изградњи ("Сл. гласник РС", бр. 72/2009, 81/2009 - испр., 64/2010 - одлука УС, 24/2011, 121/2012, 42/2013 - одлука УС, 50/2013 - одлука УС, 98/2013 - одлука УС, 132/2014, 145/2014, 83/2018, 31/2019, 9/2020 и 52/2021).

- Идејни пројекат у чијем саставу је:
- Главну свеску бр. Е–72/18 од марта 2019. године, израђену од АД "Хидрозавод ДТД" из Новог Сада, главни пројектант: Николетић Срђан, дипл.инж.грађ. са лиценцом број 314 Р727 18;
- Идејни пројекат - пројекат инжењерског објекта (део 1/2) бр. Е–72/18 од марта 2019. године, израђен од АД "Хидрозавод ДТД" из Новог Сада, одговорни пројектант: Бијелић Александар, дипл.инж.грађ. са лиценцом број 313 Ј028 10 и Николетић Срђан, дипл.инж.грађ. са лиценцом број 314 Р727 18;
- Идејни пројекат - пројекат инжењерског објекта (део 2/2) бр. Е–72/18 од марта 2019. године, израђен од АД "Хидрозавод ДТД" из Новог Сада, одговорни пројектант: Бијелић Александар, дипл.инж.грађ. са лиценцом број 313 Ј028 10 и Николетић Срђан, дипл.инж.грађ. са лиценцом број 314 Р727 18;
- Елаборат о гетехничким условима санације, бр. Е–72/18 од марта 2019. године, израђен од АД "Хидрозавод ДТД" из Новог Сада, одговорни пројектант: Станић Немања, дипл.инж.геол. са лиценцом број 391 Г615 12.

Инвеститор је дужан да овом Органу пријави радове у року од три године од дана правноснажности решења, а најкасније осам дана пре почетка извођења радова.

Пријава садржи датум почетка и рок завршетка грађења, односно извођења радова.

Инвеститор је дужан да трајно чува један оригинални или на прописан начин комплетиран примерак техничке документације на основу које је издато решење са свим изменама и допунама извршеним у току грађења и свим детаљима за извођење радова.

У случају штете настале као последица примене техничке документације, на основу које је издато Решење за коју се накнадно утврди да није у складу са прописима и правилима струке, за штету солидарно одговарају пројектант који је израдио и потписао техничку документацију, вршилац техничке контроле и инвеститор.

О б р а з л о ж е њ е

Дана 11.10.2021. године, инвеститор, ЈВП „Воде Војводине“ ПИБ: 102094162 из Новог Сада, Булевар Михајла Пупина бр. 25, путем овлашћеног лица, Приор Божане из Новог Сада,поднео је захтев овом Одељењу за издавање Одобрења за извођење радова извођење радова на санацији леве обале реке Саве од ркм 121+277 до ркм 123+350 у Хртковцима, на катастарским парцелама број: 3617/2, 4387, 4507/1 и 4508 све к.о. Хртковци, као што је описано у диспозитиву Решења.

Уз захтев за издавање одобрења за извођење радова приложена је потребна документација и то:

1. Идејни пројекат у чијем саставу је

- Главну свеску бр. Е–72/18 од марта 2019. године, израђену од АД "Хидрозавод ДТД" из Новог Сада, главни пројектант: Николетић Срђан, дипл.инж.грађ. са лиценцом број 314 Р727 18;
- Идејни пројекат - пројекат инжењерског објекта (део 1/2) бр. Е–72/18 од марта 2019. године, израђен од АД "Хидрозавод ДТД" из Новог Сада, одговорни пројектант: Бијелић Александар, дипл.инж.грађ. са лиценцом број 313 Ј028 10 и Николетић Срђан, дипл.инж.грађ. са лиценцом број 314 Р727 18;
- Идејни пројекат - пројекат инжењерског објекта (део 2/2) бр. Е–72/18 од марта 2019. године, израђен од АД "Хидрозавод ДТД" из Новог Сада, одговорни пројектант: Бијелић Александар, дипл.инж.грађ. са лиценцом број 313 Ј028 10 и Николетић Срђан, дипл.инж.грађ. са лиценцом број 314 Р727 18;
- Елаборат о гетехничким условима санације, бр. Е–72/18 од марта 2019. године, израђен од АД "Хидрозавод ДТД" из Новог Сада, одговорни пројектант: Станић Немања, дипл.инж.геол. са лиценцом број 391 Г.615 12.

2. Доказ о уплати републичке административне таксе.
3. Доказ о уплати накнаде за ЦЕОП.
4. Овлашћење за подносиоца захтева.

Дана 01.11.2021. године, орган је из базе података РГЗ РС (katastar.rgz.gov.rs) преузео преписе листове непокретности број: 820 , 194 и 63 све к.о. Хртковци к.о.

Републичка административна такса на захтев и на решење, уплаћена је уплатницом у износу од 6.150,00 динара, сходно тарифином броју 1. и тарифном броју 165. тачка 4. Закона о републичким административним таксама ("Сл. гласник РС", бр. 43/2003, 51/2003 - испр., 61/2005, 101/2005 - др. закон, 5/2009, 54/2009, 50/2011, 70/2011 - усклађени дин. изн., 55/2012 - усклађени дин. изн., 93/2012, 47/2013 - усклађени дин. изн., 65/2013 - др. закон, 57/2014 - усклађени дин. изн., 45/2015 – усклађени дин. изн., 83/2015, 112/2015, 50/2016 - усклађени дин. изн., 61/2017 - усклађени дин. изн., 113/2017, 3/2018 - испр., 50/2018 - усклађени дин. изн, 95/2018, 38/2019 – усклађени дин. изн., 86/2019, 90/2019- испр. и 98/2020-усклађени дин.изн, 144/2020 и 62/2021-усклађени дин. изн.).

Накнада за ЦЕОП уплаћена је у износу од 2.000,00 динара, у складу са Одлуком о накнадама за послове регистрације и друге послове које пружа Агенција за привредне регистре („Сл. гласник РС", бр. 119/13, 138/14, 45/15, 106/15, 32/16, 60/16, 75/18, 73/19 и 15/20, 91/20 и 11/21).

Разматрајући захтев и приложену документацију инвеститора као и документацију прикупљену по

службеној дужности, утврђено је да су испуњени услови прописани чланом 145. Закона о планирању и изградњи ("Сл. гласник РС", бр. 72/2009, 81/2009 - испр., 64/2010 - одлука УС, 24/2011, 121/2012, 42/2013 - одлука УС, 50/2013 - одлука УС, 98/2013 - одлука УС, 132/2014, 145/2014, 83/2018, 31/2019, 37/2019-др. закон и 9/2020), те је одлучено као у диспозитиву овог Решења.

ПОУКА О ПРАВНОМ СРЕДСТВУПротив овог решења се може изјавити жалба Покрајинском секретаријату за енергетику, грађевинарство и саобраћај у Новом Саду, у року од 8 дана од дана евидентирања кроз ЦЕОП, односно дана објављивања. Жалба се подноси овом органу, преко овог Одељења, путем ЦЕОП-а, таксирана са 490,00 динара републичке административне таксе уплаћених на рачун број 840-742221873-57 са позивом на број 90 229 и 50,00 динара општинске административне таксе уплаћене на рачун број 840-742251843-73, модел 97 и позив на број 90 229.

ОВЛАШЋЕНО СЛУЖБЕНО ЛИЦЕ

ТАЊА УРБАН

Annex 4

STAKEHOLDER ENGAGEMENT

ANNEX 4 STAKEHOLDER ENGAGEMENT

Identified Stakeholders

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

Potential affected parties:

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

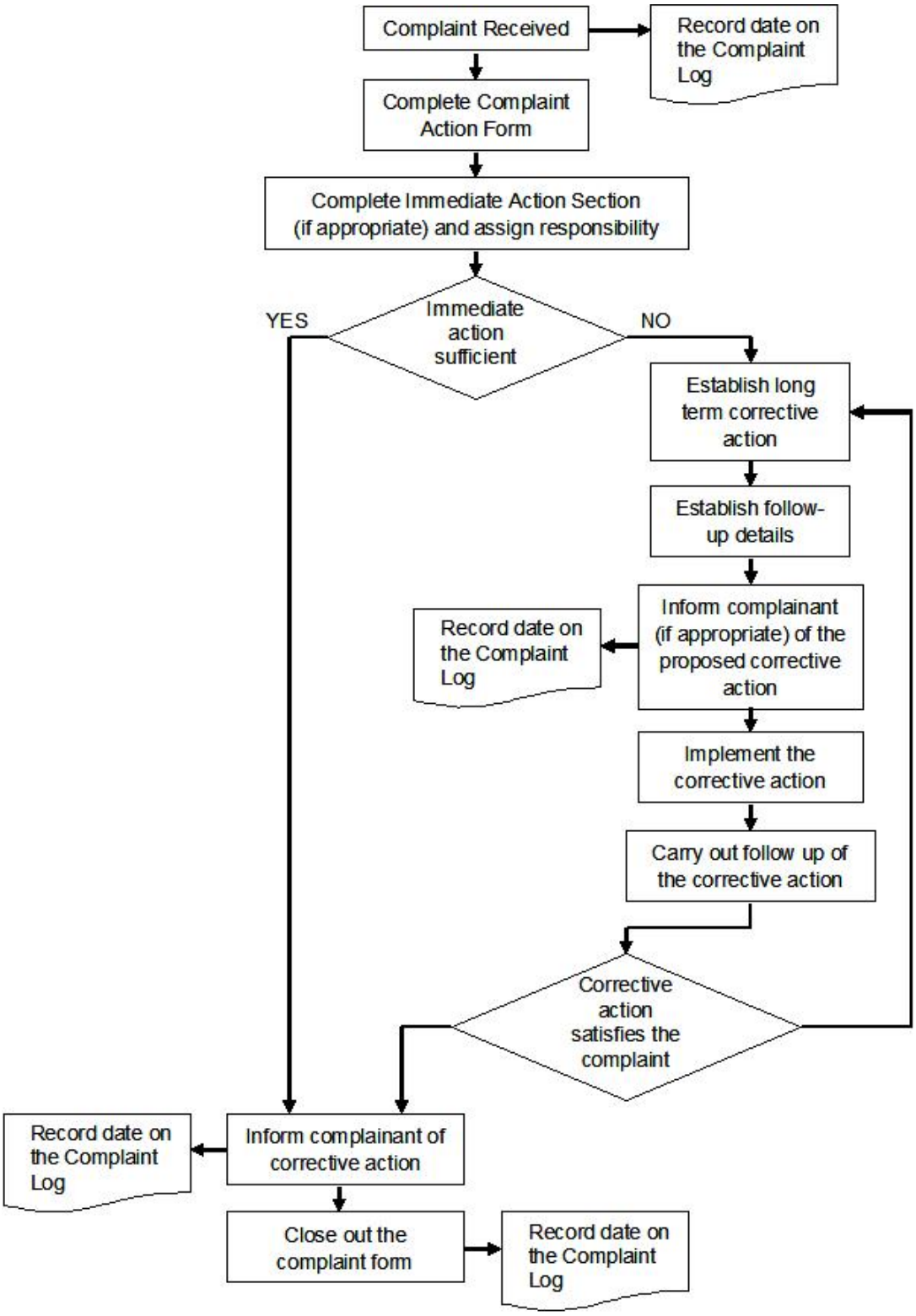
Interested parties:

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

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

Grievance mechanism and form

Flowchart of Complaints/Grievance Procedure



Grievances to be resolved within 15 working days.

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

LIST OF PLOTS WITH OWNERS

Municiaplity of Ruma
K.O. Hrtkovci
Parcels affected at the river bank

Number of parcel	Registration sheet	Area			Owner	Type of ownership-	Address	Note
		(ha)	(ari)	(m^2)				(eks cela, deo, odšt)
OBALOUTVRDA								
3617/2	1509		30	99	Savić Jovan	Privatna svojina	Šestar	eksproprijacija
4387	194		9	00	Opština Ruma	Javna svojina	Šestar	
4507/1	63	59	81	50	Republic of Serbia	Državna svojina	Put	Pravo korišćenja ima JVP "Vode Vojvodine"
4508	63	125	55	92	Republic of Serbia	Državna svojina	Reka Sava	Pravo korišćenja ima JVP "Vode Vojvodine"

Municiaplity of Sremska Mitrovica
K.O. Jarak
Parcels affected at the river bank

Br. Parcele	Br lista nepokretnosti	Površina parcele			Owner	Type of ownership-	Address	Napomena
		(ha)	(ari)	(m^2)				(eks cela, deo, odšt)
OBALOUTVRDA								
1371/16	1261		42	58	Republic of Serbia	Public ownership	Crvenka	
1549/1	1260	7	03	24	Republic of Serbia	State ownership	Oderovci	Pravo korišćenja ima R.T.C."Luka Leget"A.D.
2593	1262	1	32	97	Grad Sremska Mitrovica	Public ownership	Crvenka	
2641	273		69	70	Republic of Serbia	State ownership	Selo	Pravo korišćenja ima JVP "Vode Vojvodine"
2642	273		43	09	Republic of Serbia	State ownership	Selo	Pravo korišćenja ima JVP "Vode Vojvodine"
2643	273		76	46	Republic of Serbia	State ownership	Selo	Pravo korišćenja ima JVP "Vode Vojvodine"
2653/2	258	3	22	42	Republic of Serbia	State ownership	Dobreč	Pravo korišćenja ima JP "Vojvodina šume" - šumsko gazdinstvo Sremska Mitrovica
2665	273	129	31	02	Republic of Serbia	State ownership	Dobreč	Pravo korišćenja ima JVP "Vode Vojvodine"

Annex 5

REPORT ON PUBLIC CONSULTATIONS

ANNEX 5: REPORT ON PUBLIC DISCLOSURE AND PUBLIC CONSULTATION

This section will be incorporated after the completion of public consultations.

Annex 6

EXCERPT FROM REGULATION ON ECOLOGICAL NETWORK

ANNEX 6: EXCERPT FOM REGULATION ON ECOLOGICAL NETWORK

REGULATION ON ECOLOGICAL NETWORK

("Official Gazette of RS", No 102/10)

Annex 3 PROTECTION MEASURES FOR THE ECOLOGICAL NETWORK

1) the destruction and violation of habitats as well as the destruction and perturbation of wild species shall be prohibited;

2) the modification of area use with regard to natural and semi-natural vegetation (meadows, pastures, etc.)

3) the modification of morphological and hydrological features of areas on which the functionality of corridors depends shall be prohibited;

4) natural and semi-natural elements of corridors in compliance with landscape and vegetation features of the area shall be conserved and improved by means of planning of area use as well as by active protection measures;

5) encourage the traditional methods of use of space contributing to conservation and improvement of biodiversity;

6) measures ensuring prevention, i.e. reduction, control and rehabilitation of all forms of pollution shall be undertaken;

7) improve ecological corridors within civil engineering areas by setting up the continuity of green areas whereof structure and purpose shall support the functions of corridors;

8) technical-technological solutions for smooth movement of species shall be provided with regard to the spots of ecological corridors crossing with elements of infrastructure systems forming the barriers for species migration;

9) outside settlement zone the construction of facilities whereof purpose shall not be directly linked to water at the distance shorter than 50m from the river bank of stagnant waters, i.e. from the line of intermediate waterflow.

Annex 7

WB INTERIM NOTE: COVID-19 CONSIDERATIONS IN CIVIL WORKS PROJECTS

ANNEX 7: WB INTERIM NOTE: COVID-19 CONSIDERATIONS IN CIVIL WORKS PROJECTS

This note was issued on April 7, 2020 and includes links to the latest guidance as of this date (e.g. from WHO). Given the COVID-19 situation is rapidly evolving, when using this note it is important to check whether any updates to these external resources have been issued.

1. Introduction

The COVID-19 pandemic presents Governments with unprecedented challenges. Addressing COVID-19 related issues in both existing and new operations starts with recognizing that this is not business as usual and that circumstances require a highly adaptive responsive management design to avoid, minimize and manage what may be a rapidly evolving situation. In many cases, we will ask Borrowers to use reasonable efforts in the circumstances, recognizing that what may be possible today may be different next week (both positively, because more supplies and guidance may be available, and negatively, because the spread of the virus may have accelerated).

This interim note is intended to guide teams on how to support Borrowers in addressing key issues associated with COVID-19 and consolidates the advice that has already been provided over the past month. As such, it should be used in place of other guidance that has been provided to date. This note will be developed as the global situation and the Bank's learning (and that of others) develops. This is not a time when 'one size fits all'. More than ever, teams will need to work with Borrowers and projects to understand the activities being carried out and the risks that these activities may entail. Support will be needed in designing mitigation measures that are implementable in the context of the project. These measures will need to take into account the capacity of the Government agencies, availability of supplies, and the practical challenges of operations on-the-ground, including stakeholder engagement, supervision, and monitoring. In many circumstances, communication itself may be challenging, where face-to-face meetings are restricted or prohibited, and where IT solutions are limited or unreliable.

This note emphasizes the importance of careful scenario planning, clear procedures and protocols, management systems, effective communication and coordination, and the need for high levels of responsiveness in a changing environment. It recommends assessing the current situation of the project, putting in place mitigation measures to avoid or minimize the chance of infection, and planning what to do if either project workers become infected or the workforce includes workers from proximate communities affected by COVID-19. In many projects, measures to avoid or minimize will need to be implemented at the same time as dealing with sick workers and relations with the community, some of whom may also be ill or concerned about infection. Borrowers should understand the obligations that contractors have under their existing contracts (see Section 3), require contractors to put in place appropriate organizational structures (see Section 4) and develop procedures to address different aspects of COVID-19 (see Section 5).

2. Challenges with construction/civil works

Projects involving construction/civil works frequently involve a large workforce, together with suppliers and supporting functions and services. The workforce may comprise workers from international, national, regional, and local labor markets. They may need to live in on-site accommodation, lodge within communities close to work sites, or return to their homes after work. There may be different contractors permanently present on site, carrying out different activities, each with their dedicated workers. Supply chains may involve international, regional, and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the project such as fuel, food, and water). As such there will also be a regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.

Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is extremely serious, as are the implications of such a spread. Projects may experience large numbers of the workforce becoming ill, which will strain the project's health facilities, have implications for local emergency and health services, and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a workforce is large and/or the project is in remote or under-serviced areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.

3. Does the construction contract cover this situation?

Given the unprecedented nature of the COVID-19 pandemic, it is unlikely that the existing construction/civil works contracts will cover all the things that a prudent contractor will need to do. Nevertheless, the first place for a Borrower to start is with the contract, determining what a contractor's existing obligations are, and how these relate to the current situation.

The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main contractor; between the main contractors and the sub-contractors). It will differ if the Borrower used

the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017), which contains no 'ESF enhancements', states (in the General Conditions, clause 6.7) that the Contractor will be required:

- to take all necessary precautions to maintain the health and safety of the Contractor's Personnel
- to appoint a health and safety officer at site, who will have the authority to issue directives to maintain the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents
- to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sickbay, ambulance services and any other medical services specified are available at all times at the site and any accommodation
- to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and the prevention of epidemics

These requirements have been enhanced through the introduction of the ESF into the SPDs (edition dated July 2019). The general FIDIC clause referred to above has been strengthened to reflect the requirements of the ESF. Beyond FIDIC's general requirements discussed above, the Bank's Particular Conditions include some relevant requirements on the Contractor, including:

- to provide health and safety training for Contractor's Personnel (which include project workers and all personnel that the Contractor uses on-site, including staff and other employees of the Contractor and Sub-contractors and any other personnel assisting the Contractor in carrying out project activities)
- to put in place workplace processes for Contractor's Personnel to report work situations that are not safe or healthy
- gives Contractor's Personnel the right to report work situations which they believe are not safe or healthy, and to remove themselves from a work situation which they have a reasonable justification to believe presents an imminent and serious danger to their life or health (with no reprisal for reporting or removing themselves)
- requires measures to be in place to avoid or minimize the spread of diseases including measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent contract-related labor
- to provide an easily accessible grievance mechanism to raise workplace concerns

Where the contract form used is FIDIC, the Borrower (as the Employer) will be represented by the Engineer (also referred to in this note as the Supervising Engineer). The Engineer will be authorized to exercise authority specified in or necessarily implied from the construction contract. In such cases, the Engineer (through its staff on-site) will be the interface between the PCU and the Contractor. It is important therefore to understand the scope of the Engineer's responsibilities. It is also important to recognize that in the case of infectious diseases such as COVID-19, project management – through the Contractor/sub-contractor hierarchy – is only as effective as the weakest link. A thorough review of management procedures/plans as they will be implemented through the entire contractor hierarchy is important. Existing contracts provide the outline of this structure; they form the basis for the Borrower to understand how proposed mitigation measures will be designed and how adaptive management will be implemented and to start a conversation with the Contractor on measures to address COVID-19 in the project.

4. WHAT PLANNING SHOULD THE BORROWER BE DOING?

Task teams should work with Borrowers (PCUs) to confirm that projects (i) are taking adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak. Suggestions on how to do this are set out below:

- The PCU, either directly or through the Supervising Engineer, should request details in writing from the Main Contractor of the measures being taken to address the risks. As stated in Section 3, the construction contract should include health and safety requirements, and these can be used as the basis for identification of, and requirements to implement COVID-19 specific measures. The measures may be presented as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures. The measures may be reflected in revisions to the project's health and safety manual. This request should be made in writing (following any relevant procedure set out in the contract between the Borrower and the contractor).
- In making the request, it may be helpful for the PCU to specify the areas that should be covered. This should include the items set out in Section 5 below and take into account current and relevant

guidance provided by national authorities, WHO, and other organizations. See the list of references in the Annex to this note.

- The PCU should require the Contractor to convene regular meetings with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
- Where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating the preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site, and the local community. It is also advisable to designate at least one back-up person; in case the focal point becomes ill; that person should be aware of the arrangements that are in place.
- On sites where there are several contractors and therefore (in effect) different workforces, the request should emphasize the importance of coordination and communication between the different parties. Where necessary, the PCU should request the main contractor to put in place a protocol for regular meetings of the different contractors, requiring each to appoint a designated staff member (with back up) to attend such meetings. If meetings cannot be held in person, they should be conducted using whatever IT is available. The effectiveness of mitigation measures will depend on the weakest implementation, and therefore all contractors and sub-contractors must understand the risks and the procedure to be followed.
- The PCU, either directly or through the Supervising Engineer, may provide support to projects in identifying appropriate mitigation measures, particularly where these will involve interface with local services, in particular health and emergency services. In many cases, the PCU can play a valuable role in connecting project representatives with local Government agencies and helping coordinate a strategic response, which takes into account the availability of resources. To be most effective, projects should consult and coordinate with relevant Government agencies and other projects in the vicinity.
- Workers should be encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19, preparations being made by the project to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

5. What should the contractor cover?

The Contractor should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project: the location, existing project resources, availability of supplies, the capacity of local emergency/health services, the extent to which the virus already exists in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the project put in place the best measures possible to address the situation. As discussed above, measures to address COVID-19 may be presented in different ways (as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures). The PCUs and contractors should refer to guidance issued by relevant authorities, both national and international (e.g. WHO), which is regularly updated (see sample References and links provided in the references).

Addressing COVID-19 at a project site goes beyond occupational health and safety and is a broader project issue which will require the involvement of different members of a project management team. In many cases, the most effective approach will be to establish procedures to address the issues and then to ensure that these procedures are implemented systematically. Where appropriate given the project context, a designated team should be established to address COVID-19 issues, including PCU representatives, the Supervising Engineer, management (e.g. the project manager) of the contractor and sub-contractors, security, and medical and OHS professionals. Procedures should be clear and straightforward, improved as necessary, and supervised and monitored by the COVID-19 focal point(s). Procedures should be documented, distributed to all contractors, and discussed at regular meetings to facilitate adaptive management. The issues set out below include a number that represents expected good workplace management but is especially pertinent in preparing the project response to COVID-19.

(a) Assessing workforce characteristics

Many construction sites will have a mix of workers e.g. workers from the local communities; workers from a different part of the country; workers from another country. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:

- The Contractor should prepare a detailed profile of the project workforce, key work activities, schedule for carrying out such activities, different durations of contract, and rotations (e.g. 4 weeks on, 4 weeks off).
- This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues, or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of the project site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.
- Workers accommodated on-site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.
- Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
- Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at the entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on-site or not to come to work.

(b) Entry/exit to the worksite and checks on commencement of work

Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:

- Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system, and any COVID -19 specific considerations.
- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks, and recording details of any workers that are denied entry.
- Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to the demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring self-reporting before or on entering the site.
- Providing daily briefings to workers before commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene, and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such workers for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary, or requiring them to isolate at home for 14 days.

(c) General hygiene

Requirements on general hygiene should be communicated and monitored, to include:

- Training workers and staff on-site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing), and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
- Placing posters and signs around the site, with images and text in local languages.

- Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout the site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol-based sanitizer (if available, 60-95% alcohol) can also be used.
- Review worker accommodations, and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.
- Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

(d) Cleaning and waste disposal

Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:

- Providing cleaning staff with adequate cleaning equipment, materials, and disinfectant.
- Review general cleaning systems, training cleaning staff on appropriate cleaning procedures, and appropriate frequency in high use or high-risk areas.
- Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with the best available alternatives.
- Training cleaners in proper hygiene (including handwashing) before, during, and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes are necessary, this should be for a limited duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation, and waste management for COVID-19).

(e) Adjusting work practices

Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the project schedule. Such measures could include:

- Decreasing the size of the work teams.
- Limiting the number of workers on-site at any one time.
- Changing to a 24-hour work rotation.
- Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
- Continuing with the usual safety training, adding COVID-19 specific considerations. Training should include the proper use of normal PPE. While as of the date of this note, the general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see WHO interim guidance on the rational use of personal protective equipment (PPE) for COVID-19).
- Reviewing work methods to reduce the use of construction PPE, in case of supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
- Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
- Consider changing canteen layouts and phasing mealtimes to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on-site, including gyms.

- At some point, it may be necessary to review the overall project schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, taking into account Government advice and instructions.

(b) Project medical services

Consider whether existing project medical services are adequate, taking into account existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures, and training. Where these are not adequate, consider upgrading services where possible, including:

- Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19). Isolation facilities should be located away from worker accommodation and ongoing work activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities, and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use common areas and facilities (e.g. kitchens or canteens), they should only do so when unaffected workers are not present, and the area/facilities should be cleaned before and after such use.
- Training medical staff, which should include current WHO advise on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on-site should follow WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.
- Training medical staff in testing, if testing is available.
- Assessing the current stock of equipment, supplies, and medicines on-site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see WHO interim guidance on the rational use of personal protective equipment (PPE) for COVID-19).
- If PPE items are unavailable due to worldwide shortages, medical staff on the project should agree on alternatives and try to procure them. Alternatives that may commonly be found on construction sites include dust masks, construction gloves, and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.
- Ventilators will not normally be available on worksites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
- Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19, and WHO guidance on the safe management of wastes from health-care activities).

(c) Local medical and other services

Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:

- Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff, and essential supplies).
- Conducting preliminary discussions with specific medical facilities, to agree on what should be done in the event of ill workers needing to be referred to.
- Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
- Clarifying how an ill worker will be transported to the medical facility and checking the availability of such transportation.
- Establishing an agreed protocol for communications with local emergency/medical services.

- Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients, and (where relevant) any costs or payments that may be involved.
- A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

(d) Instances or spread of the virus

WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community). These may include the following:

- If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
- If testing is available on site, the worker should be tested on-site. If a test is not available at the site, the worker should be transported to the local health facilities to be tested (if testing is available).
- If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the worksite or home. If at home, the worker should be transported to their home in transportation provided by the project.
- Extensive cleaning procedures with high-alcohol content disinfectants should be undertaken in the area where the worker was present, before any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
- Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.
- Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
- If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and working groups should be isolated from each other as much as possible.
- If workers live at home and have a family member who has a confirmed or suspected case of COVID-19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
- Workers should continue to be paid throughout periods of illness, isolation, or quarantine, or if they are required to stop work, following national law.
- Medical care (whether on-site or in a local hospital or clinic) required by a worker should be paid for by the employer.

(e) Continuity of supplies and project activities

Where COVID-19 occurs, either in the project site or the community, access to the project site may be restricted, and the movement of supplies may be affected.

- Identify back-up individuals, in case key people within the project management team (PCU, Supervising Engineer, Contractor, sub-contractors) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.
- Document procedures, so that people know what they are, and are not reliant on one person's knowledge.
- Understand the supply chain for necessary supplies of energy, water, food, medical supplies, and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional, and national supply chains, especially for those supplies that are critical for the project, is important (e.g. fuel, food, medical, cleaning, and other essential supplies).

Planning for a 1-2 month interruption of critical goods may be appropriate for projects in more remote areas.

- Place orders for/procure critical supplies. If not available, consider alternatives (where feasible).
- Consider existing security arrangements, and whether these will be adequate in the event of an interruption to normal project operations.
- Consider at what point it may become necessary for the project to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to re-start work when it becomes possible or feasible.

(f) Training and communication with workers

Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families, and the community. They should be made aware of the procedures that have been put in place by the project, and their responsibilities in implementing them.

- It is important to be aware that in communities close to the site and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, toolboxes) that emphasize what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of workforce peace of mind and business continuity. Workers should be allowed to ask questions, express their concerns, and make suggestions.
- Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
- Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
- Training should cover all issues that would normally be required on the worksite, including the use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.
- Communications should be clear, based on fact, and designed to be easily understood by workers, for example by displaying posters on hand washing and social distancing, and what to do if a worker displays symptoms.

(g) Communication and contact with the community

Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by a local worker's presence on the project site. The project should set out risk-based procedures to be followed, which may reflect WHO guidance (for further information see WHO Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response). The following good practice should be considered:

- Communications should be clear, regular, based on fact, and designed to be easily understood by community members.
- Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used; posters, pamphlets, radio, text messages, electronic meetings. The means used should take into account the ability of different members of the community to access them, to make sure that communication reaches these groups.
- The community should be made aware of procedures put in place at the site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers, and the procedure that will be followed by the project if a worker becomes sick.
- If project representatives, contractors, or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).

6. Emergency powers and legislation

Many Borrowers are enacting emergency legislation. The scope of such legislation, and the way it interacts with other legal requirements, will vary from country to country. Such legislation can cover a range of issues, for example:

- Declaring a public health emergency
- Authorizing the use of police or military in certain activities (e.g. enforcing curfews or restrictions on movement)
- Ordering certain categories of employees to work longer hours, not to take holiday or not to leave their job (e.g. health workers)
- Ordering non-essential workers to stay at home, for reduced pay or compulsory holiday

Except in exceptional circumstances (after referral to the World Bank's Operations Environmental and Social Review Committee (OESRC)), projects will need to follow emergency legislation to the extent that these are mandatory or advisable. The Borrower must understand how mandatory requirements of the legislation will impact the project. Teams should require Borrowers (and in turn, Borrowers should request Contractors) to consider how the emergency legislation will impact the obligations of the Borrower set out in the legal agreement and the obligations set out in the construction contracts. Where the legislation requires a material departure from existing contractual obligations, this should be documented, setting out the relevant provisions.