

BIJELJINA PHASE 2 - WASTE WATER TREATMENT PLANT CONSTRUCTION, EXTENSION OF WATER SUPPLY AND SEWERAGE NETWORK

SUMMARY OF THE ENVIRONMENTAL AND SOCIAL ISSUES ANALYSIS

1. INTRODUCTION: PROJECT BACKGROUND

In 2005 local authorities brought the decision to initiate construction of the separate sewerage network. So far, it has been invested approximately EUR 13.0 million in project, out of which EUR 7.0 million was funded from the European Bank for Reconstruction and Development (EBRD) loan, signed for in 2007. The remainder of the funds is provided from the Municipality of Bijeljina budget.

Main sewerage collector, 2.004m long, and main sewerage pumping station PS1 (PS „Dasnica“), currently pumping wastewater to Dasnica channel, were built. Also, Main secondary sewerage collector no.4 was built (MSSC 4) encompassing the streets Svetog Save and Filipa Visnjica together with the neighbouring secondary and tertiary collectors and connections. Total length of constructed sewerage collectors is 5.828 m. Collectors MSSC 1 and MSSC 10 with the neighbouring secondary and tertiary collectors in the total amount of 5.360 m. Concurrently with the construction of the sewerage network, storm water collectors are also constructed as well as rehabilitation of the water supply network. This scope of work was finished in 2010.

Public company “Vodovod i Kanalizacija” Bijeljina a.d. has, supported by the Municipality of Bijeljina and the Government of the Republic of Srpska, requested from the European Bank for Reconstruction and Development (EBRD) additional loan in the amount of EUR 5 million to assist in preparation and financing of the phase 2 of the waste water collection and treatment system in the Municipality of Bijeljina, as well as extension of potable water supply network.

With the engagement of the authorities at all levels and with the support of the EBRD, significant donor funds were obtained for the project. European Union approved funding of the total amount of EUR 5.0 millions: out of which EUR 2.0 millions from the funding programme Municipal Window and EUR 3.5 millions from the national programme IPA 2009. Apart from mentioned, the Swedish International Development and Co-operation Agency (SIDA) approved the donation in the amount equal to EUR 4.0 millions.

2. PROJECT DESCRIPTION - PHASE 2

Project Bijeljina - Phase 2 includes the following components:

1. Construction of the Waste Water Treatment Plant (WWTP) of the initial capacity of 40,000 population equivalent (PE) with the possibility to extend the capacity in the future. The plant should entirely be in line with all relevant laws as well as European Union directives referring to urban waste water treatment and sludge disposal. For the purpose of construction of this plant, the Municipality of Bijeljina bought a piece of land from Secerana factory in Velika Obarska.

2. Construction of main primary sewerage collector from main pumping station PS1 at Dasnica channel to location of future WWTP in Velika Obarska. Collector will be 6.4km long and of diameter DN 1.100 mm.
3. Construction of main secondary sewerage collector no 8 (MSSC8) in Zrtava fasistickog terora Street, with the neighbouring secondary and tertiary collectors in the total amount of 5.0km.
4. Construction of distributive water supply network in the northern parts of the municipality (so called Northern Ring) in settlements where the occurrence of endemic nephropathy is evident.
5. The remainder of the funds, if any, will be used for initiation of construction of MSSC 3 in Majeviska Street with the neighbouring secondary and tertiary collectors, in the total amount of 7.43km, in order to connect as much as possible number of clients to wastewater network.

(Satellite maps with the indicative location are attached)

3. ENVIRONMENTAL AND SOCIAL MATTERS

Current situation

Potable water

Potable water quality supplied by “Vodovod i Kanalizacija” a.d. Bijeljina entirely satisfies standards defined by European Union Council Directive (98/83/EC) on the quality of water intended for human consumption and the Rulebook on hygienic adequacy of potable water (“Official Gazette of the Republic of Srpska”, No 40/03). Local regulations are mainly in accordance with the EU directives, but still there are minor discrepancies in some parameters. Regular analysis of the water is performed by independent certified laboratories as well as laboratory of the company. Results of these analyses are published on the company’s website.

Waste water

Currently existing sewerage system is not neither in line with the European Union Council Directive concerning urban waste water management (91/271/EEC) nor in line with Sewerage Sludge Directive (86/278/EEC and later amendments). Also, it is not in accordance with the relevant local regulations since the collection system is in the early stage of development and there is no waste water treatment plant. Currently, collected waste water is discharged in the Dasnica channel. As a consequence, the quality of water downstream from the point of discharge has deteriorated, although it is still in accordance with the requirements for this category of surface water.

The project will enable a significant reduction in pollution of ground water and reduction of pollution of water in channel. Since ground water are used for water supply, it is very important to as soon as possible continue with the development of the sewerage system.

Apart from mentioned, the Project Bijeljina Phase 2 will enable to “Vodovod i Kanalizacija” a.d. Bijeljina to achieve standards for waste waters and biological sludge defined by the European Union Council Directive for quality of water intended for human consumption.

Project impact

It is expected that the implementation of this project will have significant positive social impact and positive impact on the environment. Identified positive influence includes:

- Reduction of soil pollution from septic tanks of the clients that will be connected to the sewerage system.

- Significant reduction of discharged waste water to ground water in area of Grmic source;
- Significant improvement of the quality of surface water, especially in Dasnica channel where, currently, all collected waste water is being discharged at the main pumping station PS1;
- Reducing the number of patients from endemic neuropathy, abandoning the usage of individual water wells and connecting to the potable water supply system;
- Improving the standard of living in the city of Bijeljina introducing the service of waste water collection and treatment as well as by extended potable water supply system.
- Achieving and maintaining standards defined in the European Union directives concerning urban waste water management, sludge treatment and water intended for human consumption.

Potential negative influence on environment as well as negative social impact is only expected in the early phases of the project construction. These impacts include:

- Pollution and deterioration of the soil from harmful substances spilling (fuel, oil, etc.) and removal of the humus layer on agricultural surfaces and parks;
- Air pollution by dust during the works, during usage of unpaved streets, bad smell at places of septic tanks overflow, exhaust gases from machinery and vehicles used during the construction;
- Noise and vibration pollution from the constructing machinery during the construction and during the deployment period of the WWTP;
- Solid waste from removed asphalt and concrete surfaces, excavated earth and old water supply pipes;
- Traffic disturbances due to temporary and partial or complete closing of streets/part of the streets for vehicles and pedestrians
- Pollution of ground water due to spillage and trickling of fuel, oil and other pollutants.
- Health and safety hazard from open channels and trenches deposited and temporarily stored materials, manoeuvring with the construction machinery.

Only in one part of the Project temporary expropriation of the land is planned during the construction of the main primary sewerage collector from the pumping station PS1 Dasnica to WWTP in Velika Obarska, while the other part will be permanently expropriated. Physical and economical resettlement is not planned nor resettlement of the inhabited locations or business locations. During the construction activities, some building will have at several sections along the water supply pipeline in urban area difficult access. Also, since significant amount of works is going to be performed in the urban area, there is possibility of damage on some buildings.

Altogether, the expected positive social-economic advantages of the project are significantly higher than potential negative impact during the construction period.

4. SUMMARY OF THE MITTIGATION MEASURES

Study with detailed estimation of environmental impact and mitigation measures was performed for the whole system of waste water collection and treatment in the Municipality of Bijeljina covering all stages from the construction until deployment. Apart from that, "Vodovod i Kanalizacija" a.d. Bijeljina company obliged to prepare Environmental and Social Action Plan (ESAP) in order to fulfil requests of the EBRD's Environmental and Social Policy (2008), which includes the following:

- defining contractual requirements for the contractor, in relation to the environment, health and safety at work, and defining measures for better monitoring of the contractors.
- Contractor will prepare elaborate and implement Environment, Health and Safety at work Management System (EHS-MS) in line with the international good practice;
- All employees will attend the introductory training on environment protection, health and safety at work prior to start working on-site;
- Contractor will prepare plan for noise and vibrations;
- Special plan will be prepared in order to elaborate modes of dust reduction;
- Contractor will prepare special plan for management of hazardous materials and plan for waste management;
- Emergency prevention and response plan will be prepared in collaboration with the local community and local people/institutions responsible to respond in emergency situations;

5. INFORMATION ANNOUNCEMENT

Information related to the environment and social matters in the project are published in accordance with the laws of the Republic of Srpska. Estimation of impact on the environment could be found at the following web address:

<http://www.bnvodovod.com>

This summary on environment and social matters as well as the Stakeholder Engagement Plan (SEP) including grievance mechanism is going to be available at the following web addresses:

<http://www.bnvodovod.com>

<http://www.sobijeljina.org>, also in the premises of the Municipality of Bijeljina.

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Stakeholder Engagement Plan (SEP) includes detailed information on current and future consultation with the stakeholder, including the consultations that Contractor is due to undertake.

6. MONITORING AND REPORTING

“Vodovod i Kanalizacija” a.d. Bijeljina shall engage an independent engineer to follow performance of the contractors in relation with the environment protection, safety at work and social matters.

“Vodovod i Kanalizacija” a.d. Bijeljina shall monitor and annually report to the Bank on environment protection, protection at work and social matters as well as on implementation of the Environmental and Social Action Plan (ESAP).

“Vodovod i Kanalizacija” a.d. Bijeljina shall report to the Bank about all major accidents and incidents and conduct business strictly following both local and EU regulations and environmental standards.