SERBIA

Partners:
- Public Utility Company Belgrade Waterworks and Sewerage
- The City of Belgrade
- Ministry of Agriculture, Forestry and Water Management, Serbia

Estimated investment:
- € 18 million

WBIF Bilateral Donor contribution:
- €3 million

European Bank for Reconstruction and Development (EBRD) loan:
- €13 million

Estimated EBRD grant:
- €1 million

Beneficiary (P.U.C. Belgrade Waterworks and Sewerage) contribution:
- €1 million

Environment

Upgrade of Makiš Water and Wastewater Treatment Facilities

The Makiš water treatment complex secures 60% of total water demand of the City of Belgrade. It comprises three water treatment plants - Makiš I, Makiš II, and Jezero, as well as other ancillary facilities; while Makiš II is new (commissioned in 2015), the two others need refurbishment to fully meet the City's water needs.

Moreover, the sludge and technical wastewater that result from the treatment of raw water are discharged directly into a settling tank on site and in the urban sewage system. This practice negatively impacts the environment and incurs significant costs associated with the periodical removal of sediment from the tank.

This investment project concerns two components:

- Component 1: Refurbishment of Jezero Water Treatment Plant, construction of two new raw water distribution pipelines, and sediment removal from the settling tank (back-up water reservoir);
- Component 2: New facilities for technical water and sludge treatment.

New and to-be-refurbished water treatment facilities in Makiš.

Results:

- Jezero water treatment plant rehabilitated and operating at full capacity.
- 750m-long new raw water pipelines with a total capacity of 2.8 m^3/s to feed the Makiš complex.
- Settling tank at full capacity of 1.3 million m^3.
- A new technical water treatment facility with a capacity of 421,200 m^3/day.
- Two new sludge treatment facilities with a capacity increase of 9,360 m^3/day.
- 5m^3/s drinking water supply capacity to meet the existing demand.

Existing water treatment facilities in Makiš 2 Water Treatment Plant.

Start date:
- Component 1: 2017
- Component 2: Late-2018

Estimated end date:
- End of 2019

Estimated loan repayment period:
- 8 years

Environment

Preparatory works for future investments. December 2017.

Works on Component 1, which are financed by the European Bank for Reconstruction and Development (EBRD) loan, have already started. The EBRD has been a long-standing development partner to the Belgrade Water Company and the City of Belgrade. The first ever public transaction signed by the EBRD in Serbia was with the City of Belgrade in 2001 for financing key municipal capital investments, including the construction of the Makis II Water Treatment Plant, which was commissioned in 2015.

The works for Component 2, which are financed by recent contributions to the WBIF Joint Fund from Bilateral Donors (Austria, Germany, Norway, Sweden, France, Luxembourg, and Slovenia), are due to start in 2018.

The WBIF grant will allow for the processing of the water treatment by-products so that these are converted into solid state and then deployed adequately. Specifically, it will assist with the construction of a pre-settling unit, a secondary sludge thickener, and a process wastewater treatment plant.

The grant will offset a part of the investment costs which otherwise would have been reflected in a rather steep water tariff increase, beyond the current affordability levels of the low and mid-income population.

Benefits

- Continuous water supply for 1.3 million people living in the City of Belgrade.
- Water supply services at affordable levels for the people of Belgrade thanks to the grant component which will subsidize 16% of the investment costs.
- 80 jobs created during construction and 10 more for the operation of the new technical wastewater and sludge treatment facilities.
- Improved surface and groundwater quality in the area and downstream thanks to adequate treatment of technical wastewater and sludge.
- Sustainable disposal and use of treated sludge.
- Improved compliance with EU Water and Environment Directives and international best practices in the field.