

**Municipality of Bar**

**Hydrotechnical infrastructure  
projects 2016-2021**

# Current state

The construction of water supply system of the Municipality of Bar began in 1929. with the water source of the Sustaš. The system expanded gradually, following the development of the city.

The water supply system consists of:

- 11 springs with 19 water sources facilities;
- 16 pumping stations at sources with a total installed capacity of 914.2 kW;
- 16 pumping stations for several water supply zones with a total installed capacity of 462 kW;
- 14 distribution tanks with a total volume of 6,533 m<sup>3</sup>;
- Water supply network with a total length of about 475 km.

# Current state

**Slika 20:** Rezervoar „Golo Brdo“



**Slika 21:** Cjevovodi DN400



**Slika 26:** Pumpno postrojenje „Sutomore“



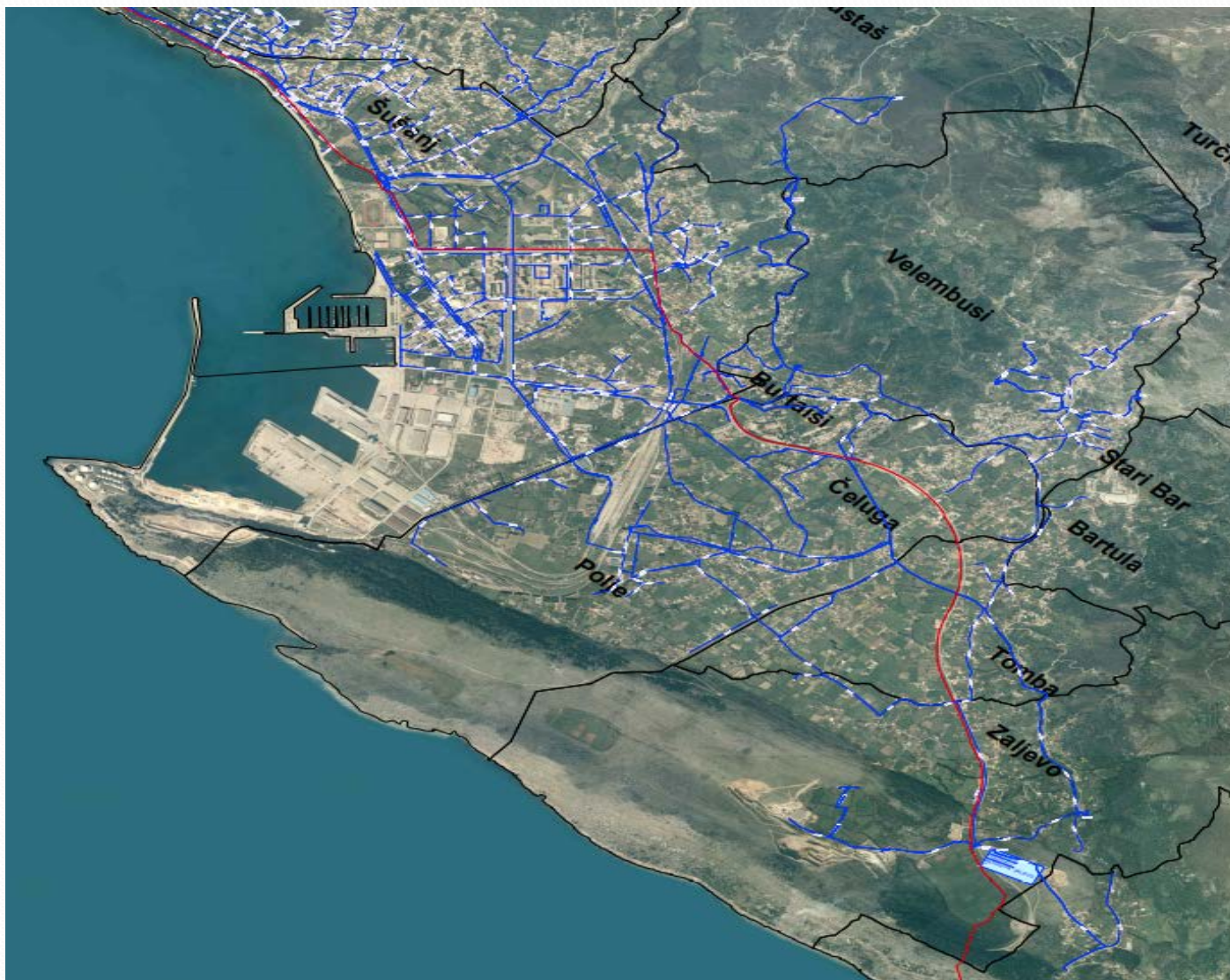
Izvor: Ekspertski tim/terenski obilazak

## Current state

- The water supply in Bar is characterised by large oscillations in the capacity of existing springs in average and low-water periods, with relatively small available amounts of water in periods of highest consumption
- The water supply system of Bar has been connected to the Regional Water Supply System, in June 2011.



# Current state – Bar center



Projekat: Izrada projekta "Organizacija, modernizacija i održavanje"		Izradio: <b>IPFAR &amp; JAVIN KROVA</b>	
Datum: 2018. godine		Datum: 2018. godine	
Mesto: Bar, opština Bar, Zlatibor, Republika Srpska		Mesto: Bar, opština Bar, Zlatibor, Republika Srpska	
Skala: 1:1000		Skala: 1:1000	

# Water supply problems

- Terrain configuration, with elevations of settlements from 0 to over 200 m above sea level lead to the development of four altitude consumption zones
- Inadequate set up of height zoning, due to which some parts of the city have low water pressures, and some very high, causing hydraulic instability and reduces reliability of the system;
- Uneven consumption during the year and during the day, typical for tourism regions, which imposes two completely different operation mode for the water supply system during winter and during summer.

## Rural area

- The Virpazar water supply system with its existing capacities is a separate part of the Bar water supply system
- There are several rural waterworks within Virpazar, and other local communities in the region of Crmnica
- The future tourism development of the Skadar Lake coastal area from Virpazar to Ostros needs to take into consideration water supply and wastewater disposal on a proper way

# Water Supply and Sanitation Adriatic Coast

## Phase III Project

- Introduced in 2008. and started with the implementation in 2016.
- The project is financed from a KfW Bank loan and partly from the Municipality's own funds.
- The contract with MPP Jedinstvo from Sevojno, Serbia, as the contractor, was signed in 11/2015. The other participants in the project are *ViK doo* Bar as an investor, *Vodacom* as the implementation agency and *Dahlem* as an engineer and supervisor.



# Water Supply and Sanitation Adriatic Coast Phase III Project

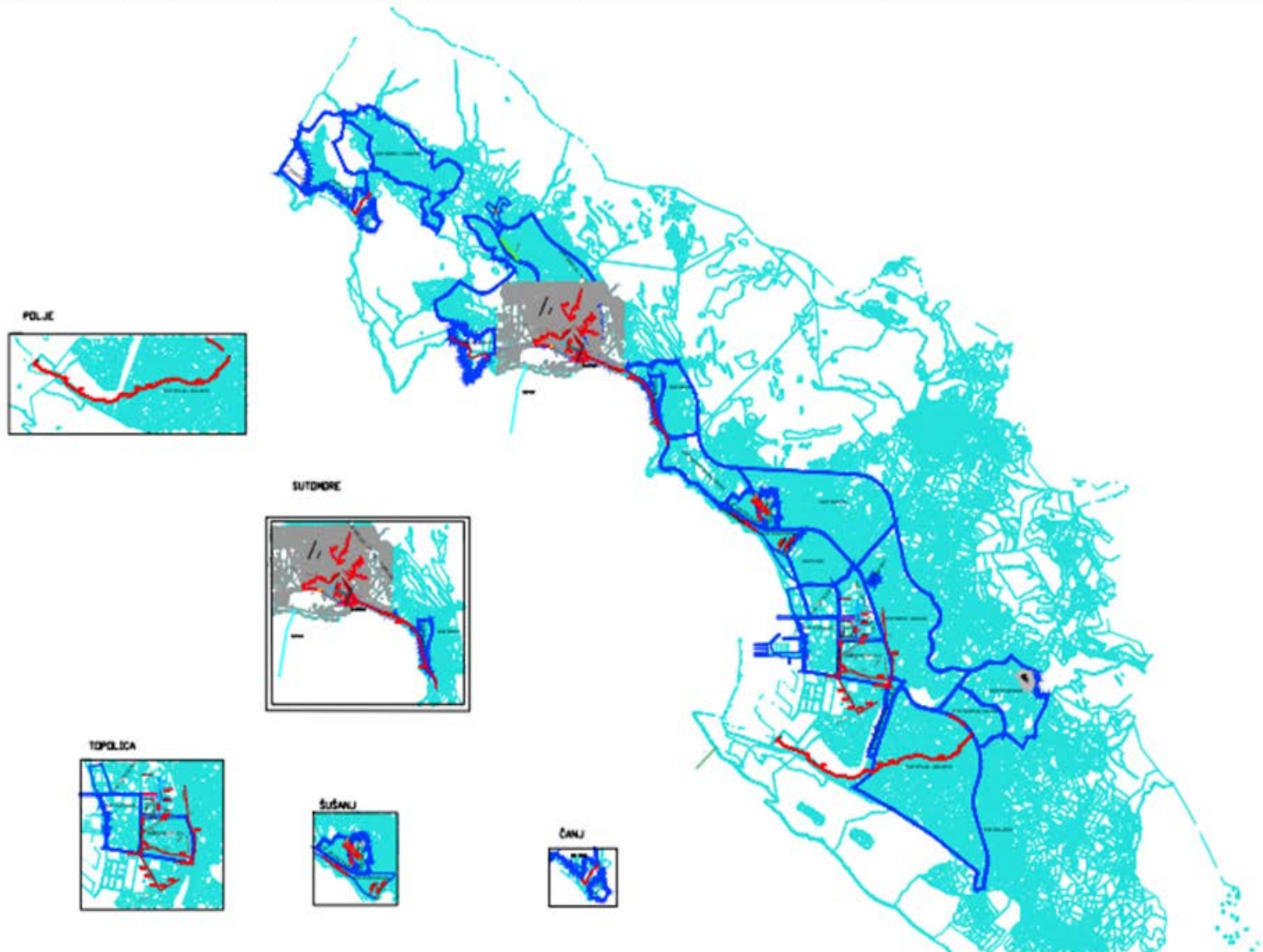
As part of the project, since 2016, construction of:

- 5.8 km of water supply network
- 19.2 km of faecal sewage network
- 1 km of stormwater sewage network
- 1 pumping station with the construction of new sea outfall "Sutomore" 1040m
- 1 reservoir "Šušanj 2"

The total value of the works under the Contract was

**€ 8,329,530.**

# Water Supply and Sanitation Adriatic Coast Phase III Project



# Water Supply and Sanitation Adriatic Coast Phase III Project

- Implementation of additional measures began in 2018 - A new project concept in Bar
- A construction of water supply system for settlements of Polje, Zaljevo, Sveti Ivan and Mala Volujica was designed as the part of this project , as well as sewage pumping station Volujica
- All the works defined by new concept in Bar are completed and today they represents the backbone of the water supply systems for the settlements of Zaljevo - Polje, Sv. Ivan and Mala Volujica

# Water Supply and Sanitation Adriatic Coast

## Phase III Project

As part of the concept, since 2018, construction of:

- Zaljevo 1 reservoir (66 m above sea level),
- Connecting pipeline to regional water supply network, length 110m
- Distribution pipeline from the “Zaljevo 1” reservoir to the settlement of Sveti Ivan, length 650 m
- Distribution pipeline from the reservoir “Zaljevo 1” to the settlement of Zaljevo and Polje, length 1160m ( first part)
- Distribution pipeline towards the settlements of Zaljevo and Polje, length 980 m ( second part)
- Pumping station Volujica

Total value of works under The new project concept

**€ 2,600,000.**

# Water Supply and Sanitation Adriatic Coast Phase III Project



Reservoir Zalievo and part of the pipelines



# Water Supply and Sanitation Adriatic Coast Phase III Project

Both projects were financed from:

- KfW loan € 10.177.801
  - Municipal own budget € 0.857 million
  - KfW grant € 0.155 million
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- The expected result of all the works completed is the systematic upgrade of the water supply and wastewater system
  - The main goal is improvement of environmental conditions and the quality of life of local citizens





# Water Supply Study

- Still, 1/3 of Bar territory is without water supply network constructed
- With the financial support from Government of Montenegro local administration initiated the preparation of the Water Supply Study of the Municipality of Bar, which was successfully completed in 12/2020
- This Study analyses the current situation and provides potential solutions and alternatives for water supply of the coastal, central and lake part of the municipality, as well as hydraulic models of water supply systems for all these areas

# Cooperation with “Regional Water Supply Company”

- Following the results of the study, Municipality of Bar, initiated project cooperation with “Regional Water Supply Company” and the Municipality of Ulcinj, for water supply and sewerage network construction in the coastal part from the Ćafe tunnel in Bar to Kruče in Municipality of Ulcinj, setting it as a project of regional importance
- With expected support from the Government of Montenegro, the implementation of this important project will be secured and enable future development of tourism as predominately local economy.



Thank you for the attention