



ACTIVITIES RELATED TO THE WFD IMPLEMENTATION IN SERBIA AND MONTENEGRO

**WB, HMWB AND AWB - PRELIMINARY
IDENTIFICATION**

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Preparation of Roof Report 2004

12 river basins > 4000 km²

50 WB identified (9 at Danube, 41 at tributaries)

HMWB – due to main uses and significant physical alterations

HMWB Candidate – more precise data after future investigations

HMWB planned – reservoirs or flood protection and river training works planned

Natural WB

AWB – Danube-Tisza-Danube hydrosystem (incl. Bega river)

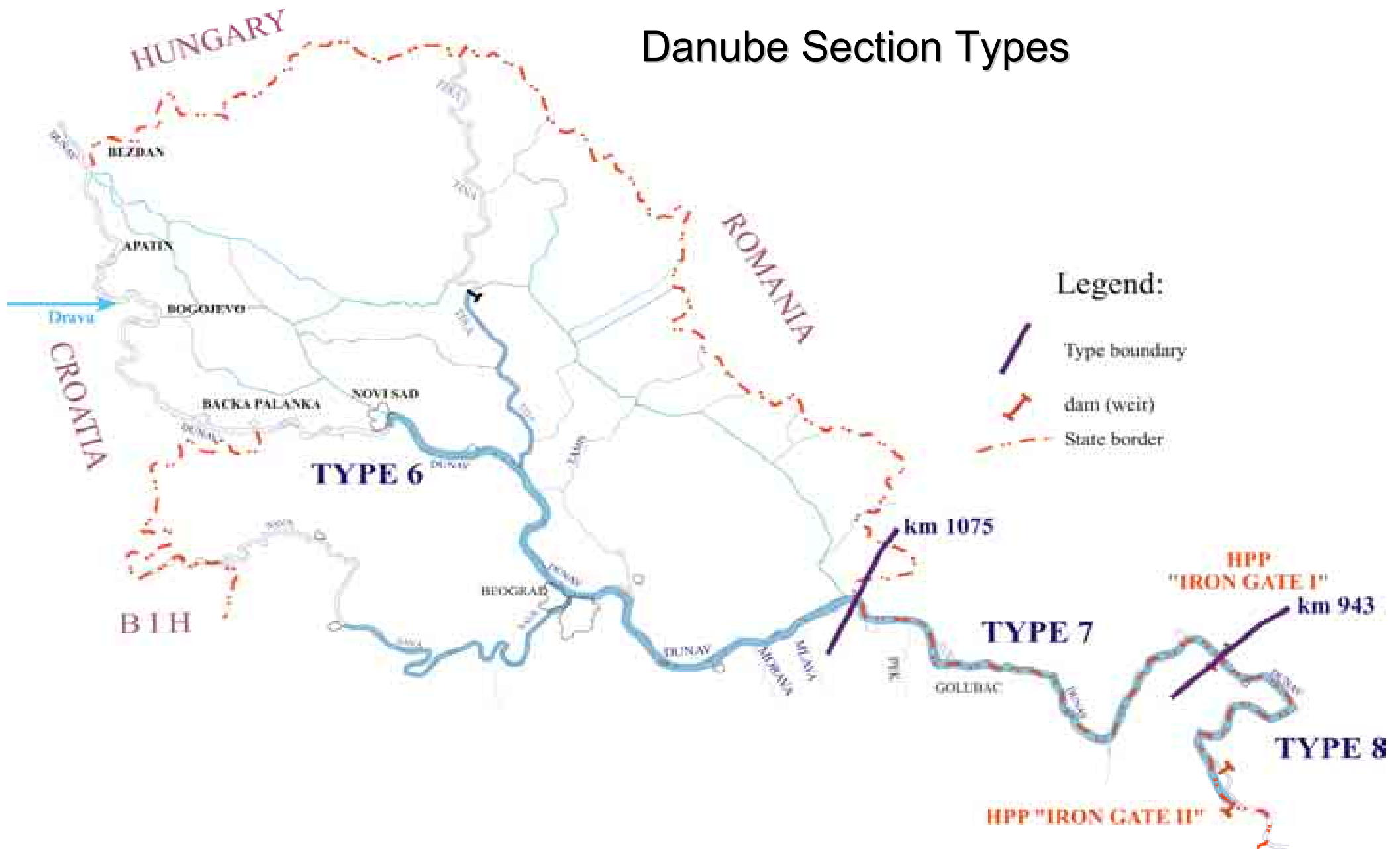


DANUBE RIVER

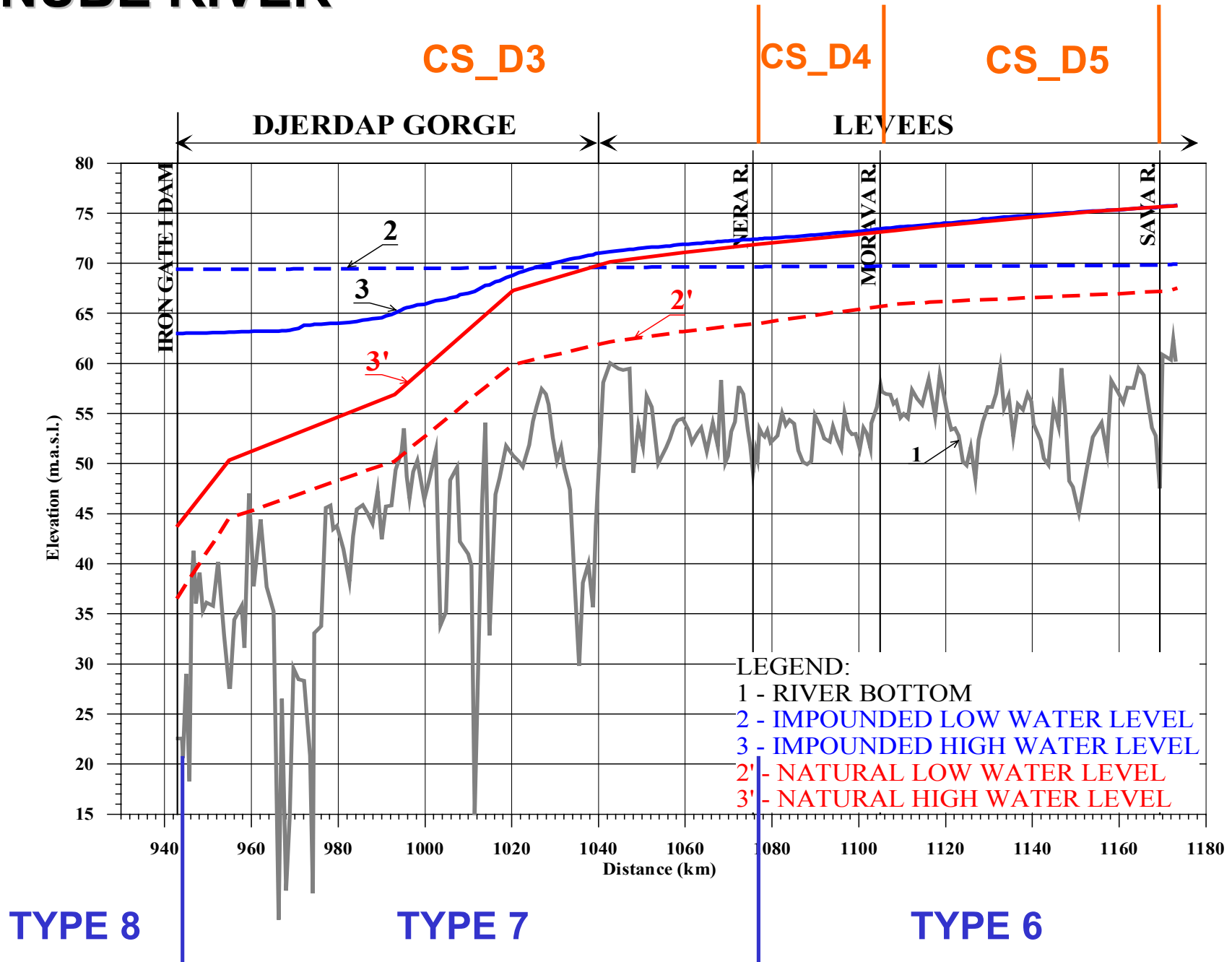


DANUBE RIVER

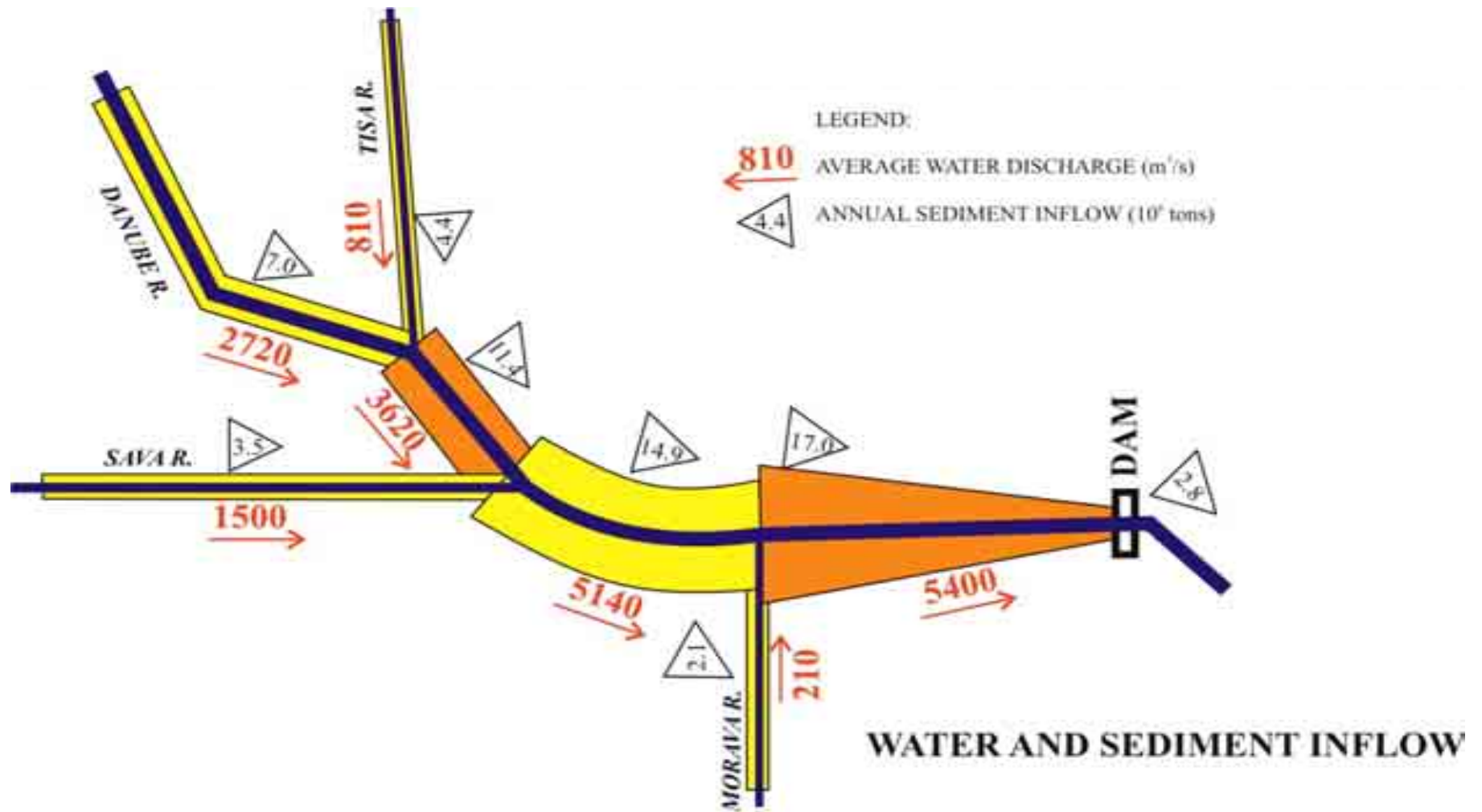
Danube Section Types



DANUBE RIVER

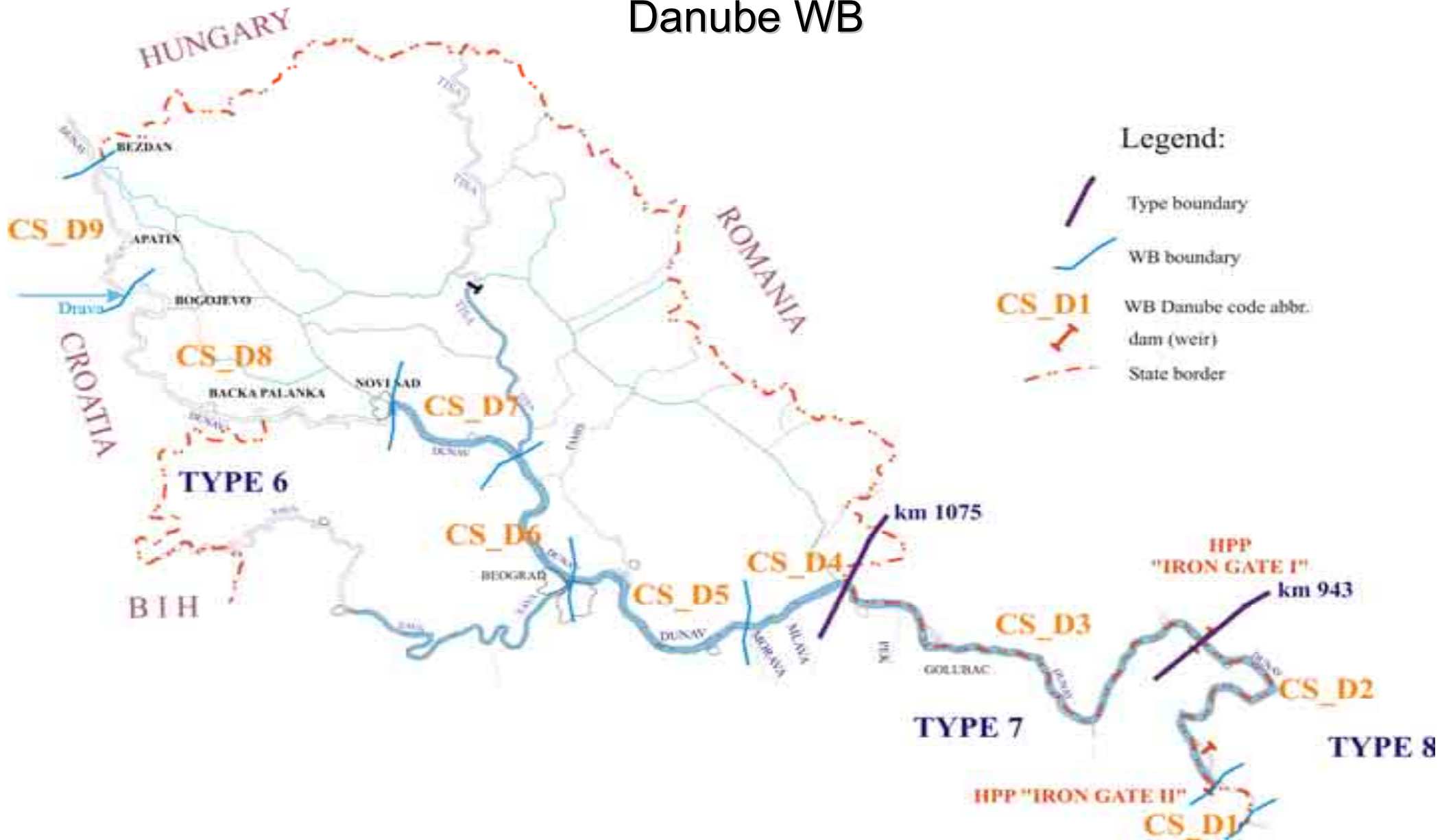


DANUBE RIVER



DANUBE RIVER

Danube WB



DANUBE RIVER

common WB with Romania



DANUBE RIVER

CS_D3- deep part of **HPNS Iron Gate I Reservoir (km 943-1075)**



DANUBE RIVER

CS_D4 – CS_D7 shallow parts of **HPNS Iron Gate I Reservoir**

CS_D4 (km 1075 – 1105) – V. Morava R.

CS_D5 (km 1105 –1170) – Sava R.

CS_D6 (km 1170 –1215) – Tisza R.

CS_D7 (km 1215 –1255) – backwater end

CS_D4



CS_D5



CS_D6



DANUBE RIVER

CS_D8 - HMWB (km 1255-1382) – flood protection & training of the river channel

common WB with Croatia



MOUTH OF THE DRAVA RIVER - VUKOVAR (KM 1382- KM 1333)



VUKOVAR - STATE BORDER (KM 1333 - KM 1295)

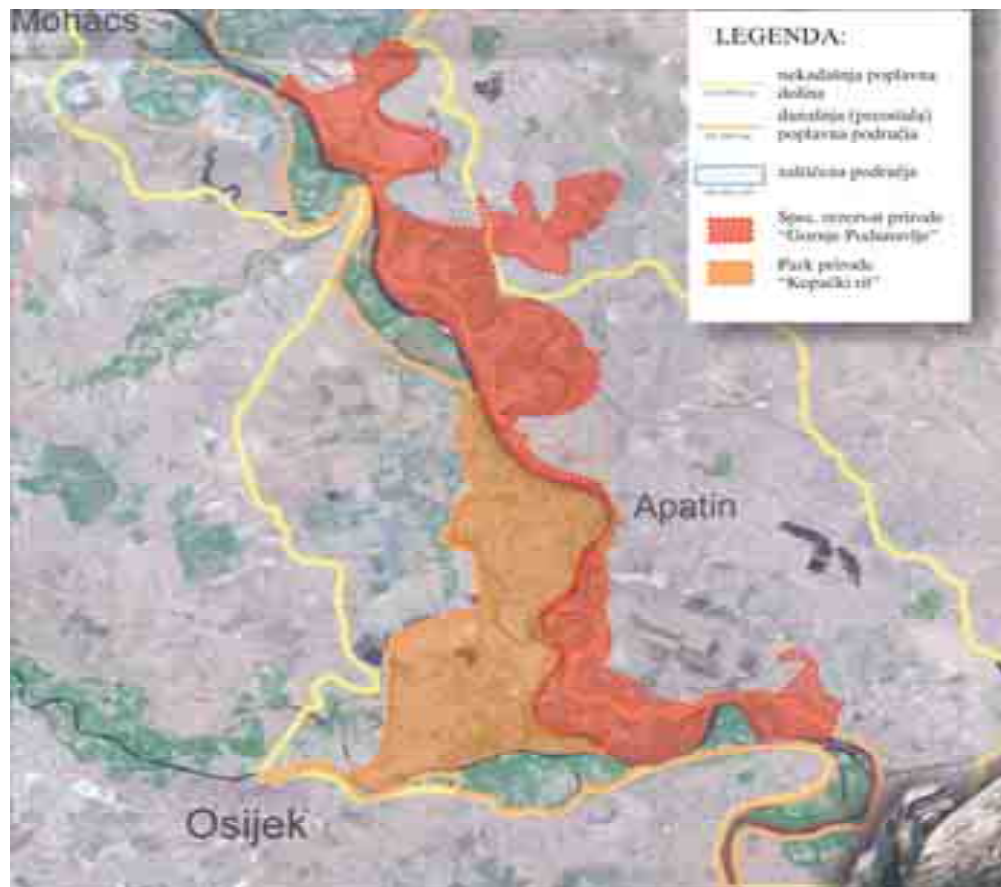


STATE BORDER - NOVI SAD (KM 1295 - KM 1255)



DANUBE RIVER

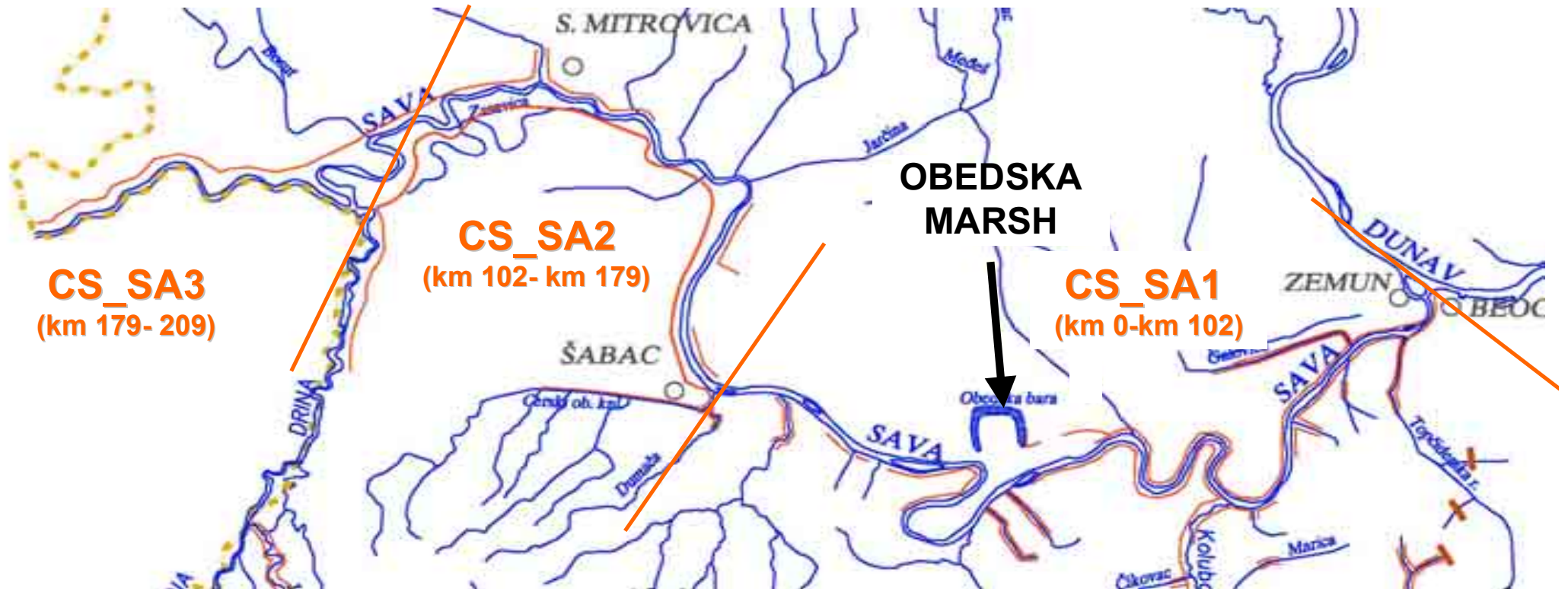
CS_D9 - HMWB (km 1382 – 1433) – flood protection & training of the river channel
common WB with Croatia



HUNGARIAN BORDER - MOUTH OF THE DRAVA RIVER (KM 1433 - KM 1382)



SAVA RIVER



CS_SA3 upstream end at the CS-HR state border
(coordinated with HR)

SAVA RIVER

CS_SA1
(km 0 - km 102)



CS_SA2
(km 102 - km 179)



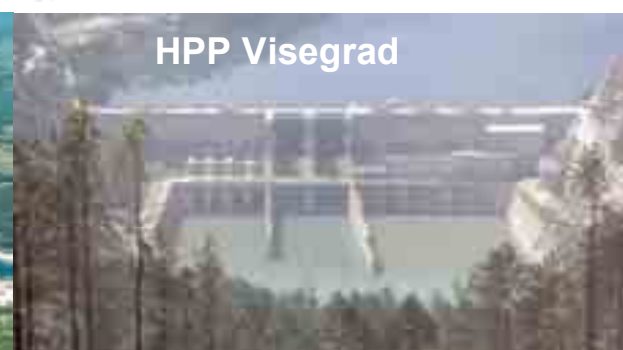
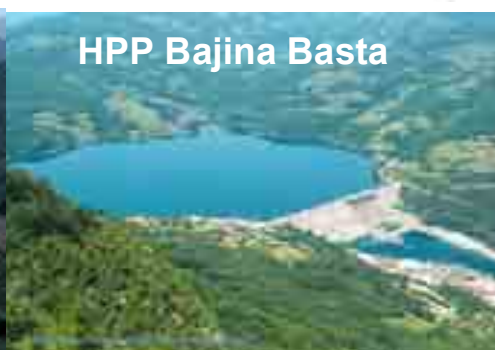
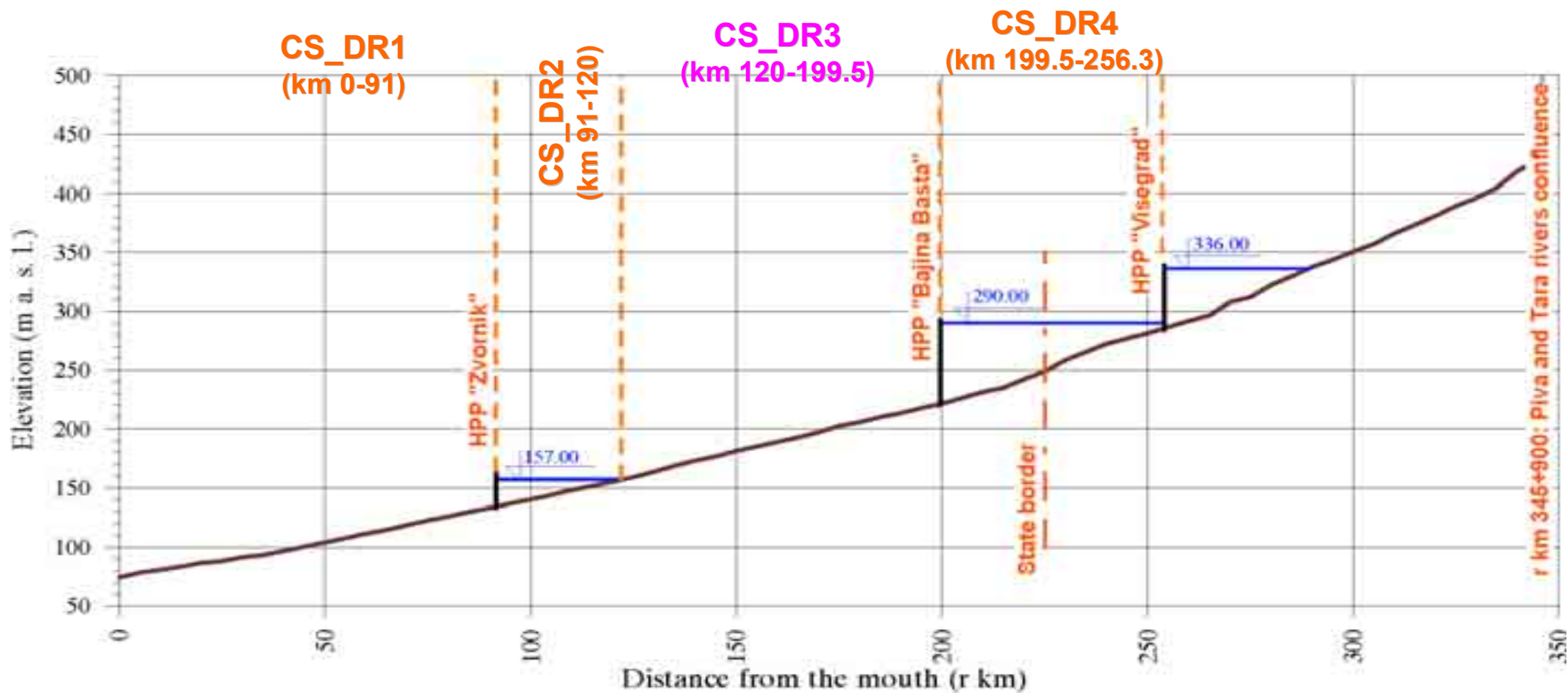
CS_SA314
(km 179 - 209)



DRINA RIVER

CS_DR1, CS_DR2, CS_DR4 – HMWB

CS_DR3 – HMWB planned – HPP planned in WMP of Serbia



DRINA RIVER

CS_DR1
(km 0-91)



CS_DR2
(km 91-120)



CS_DR4
(km 199.5-256.3)



CS_DR3
(km 120-199.5)



VELIKA MORAVA RIVER



CS_VM1

(km 0-21.7) – Iron Gate I reservoir

CS_VM2

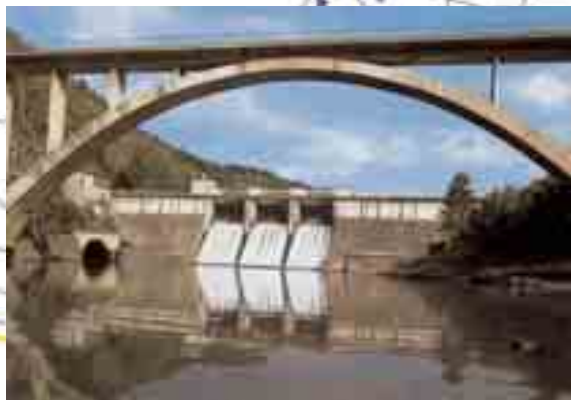
(km 21.7-98)

CS_VM3

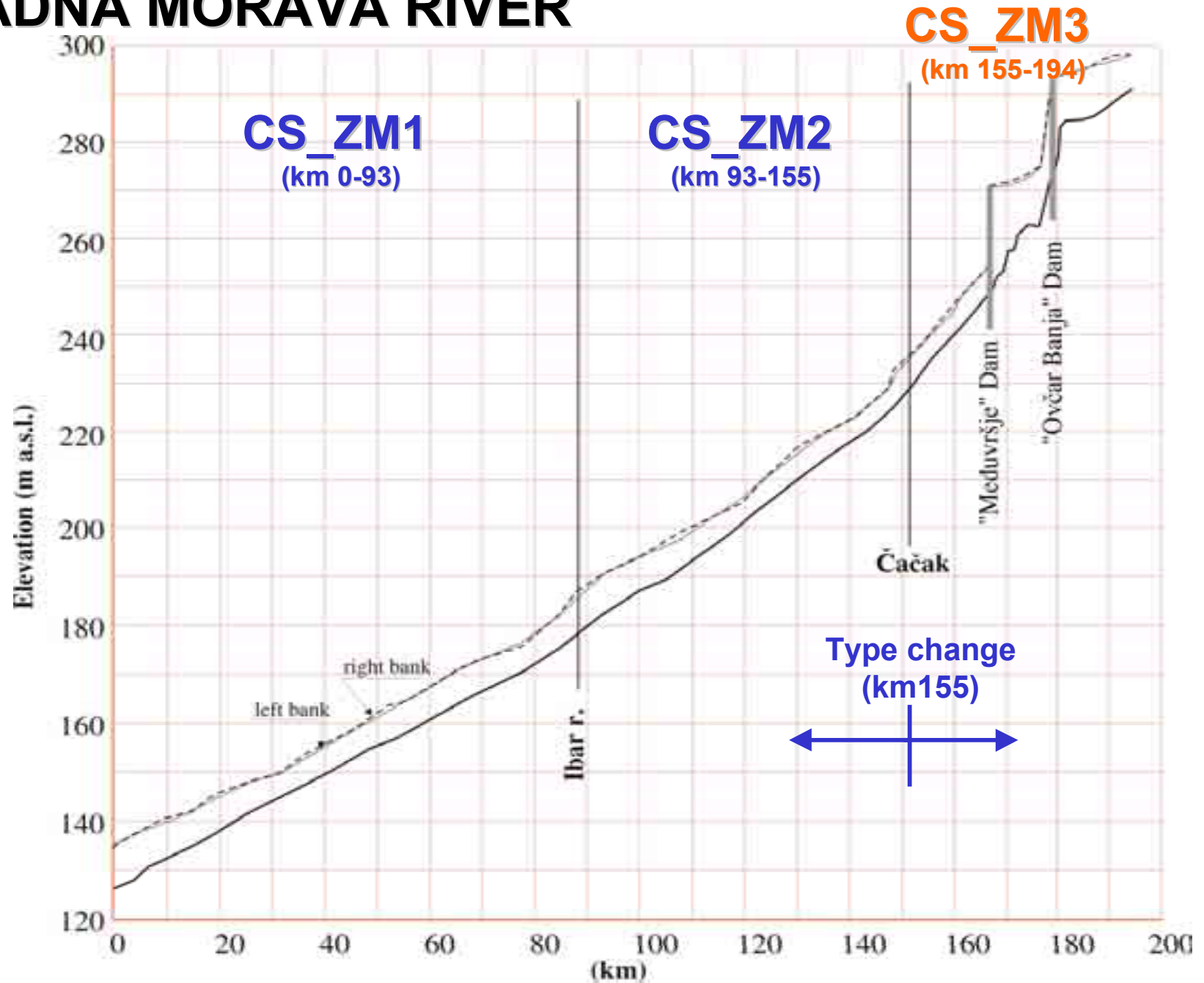
(km 98-174)

ZAPADNA MORAVA RIVER

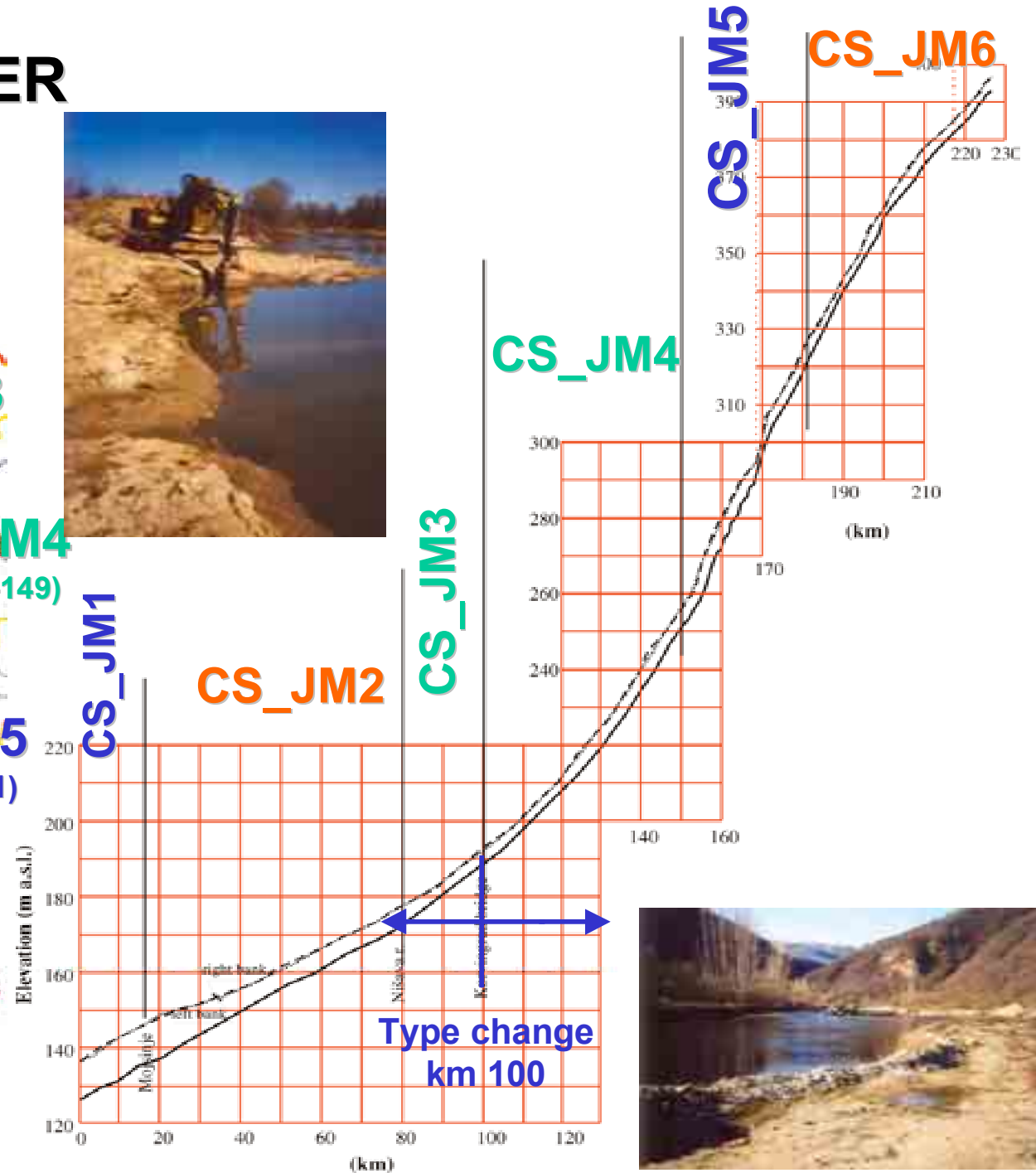
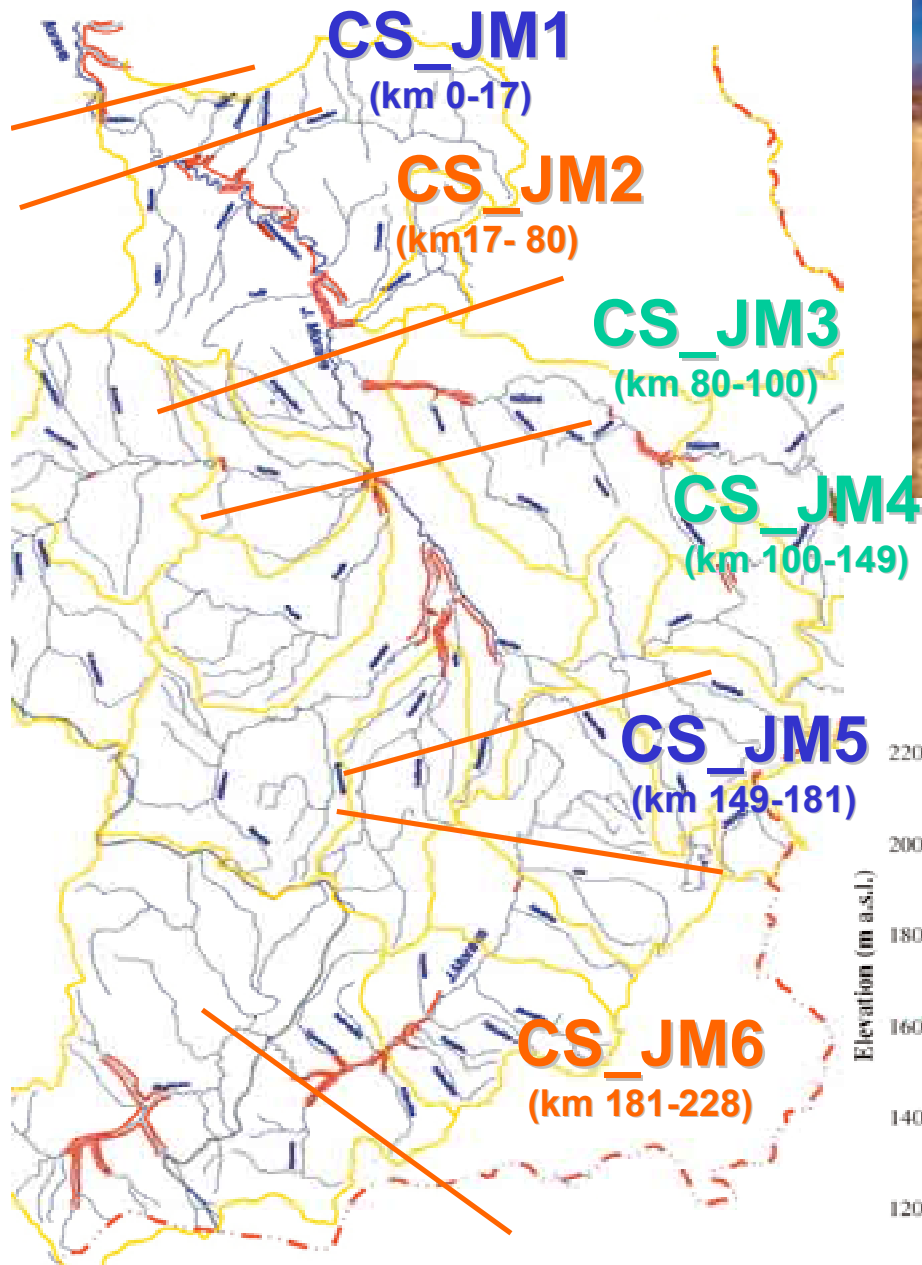
CS_ZM1, CS_ZM2 – natural WB
CS_ZM3 – HMWB



ZAPADNA MORAVA RIVER



JUZNA MORAVA RIVER



NISAVA RIVER

CS31

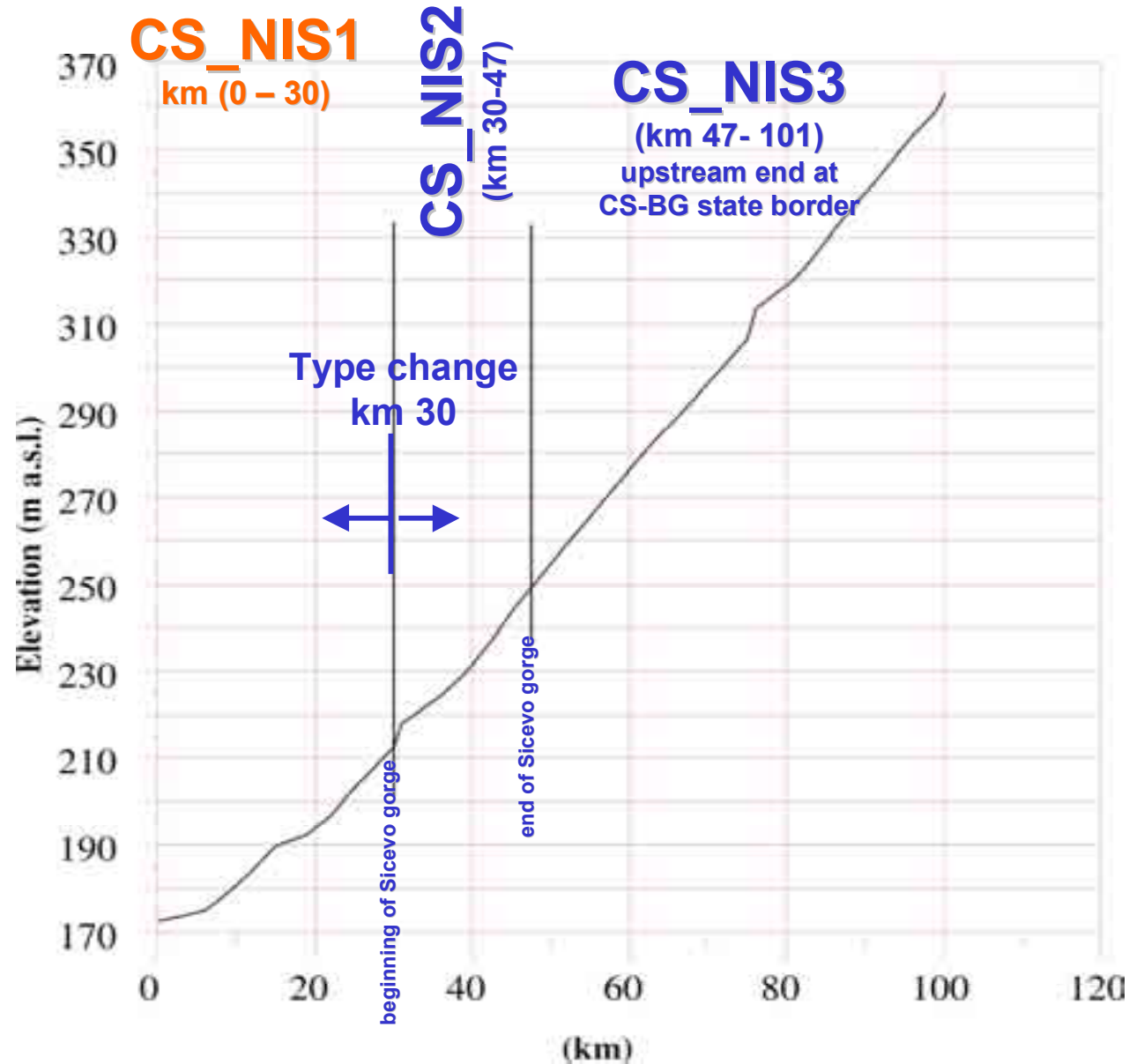


CS32 (Sicevo gorge)



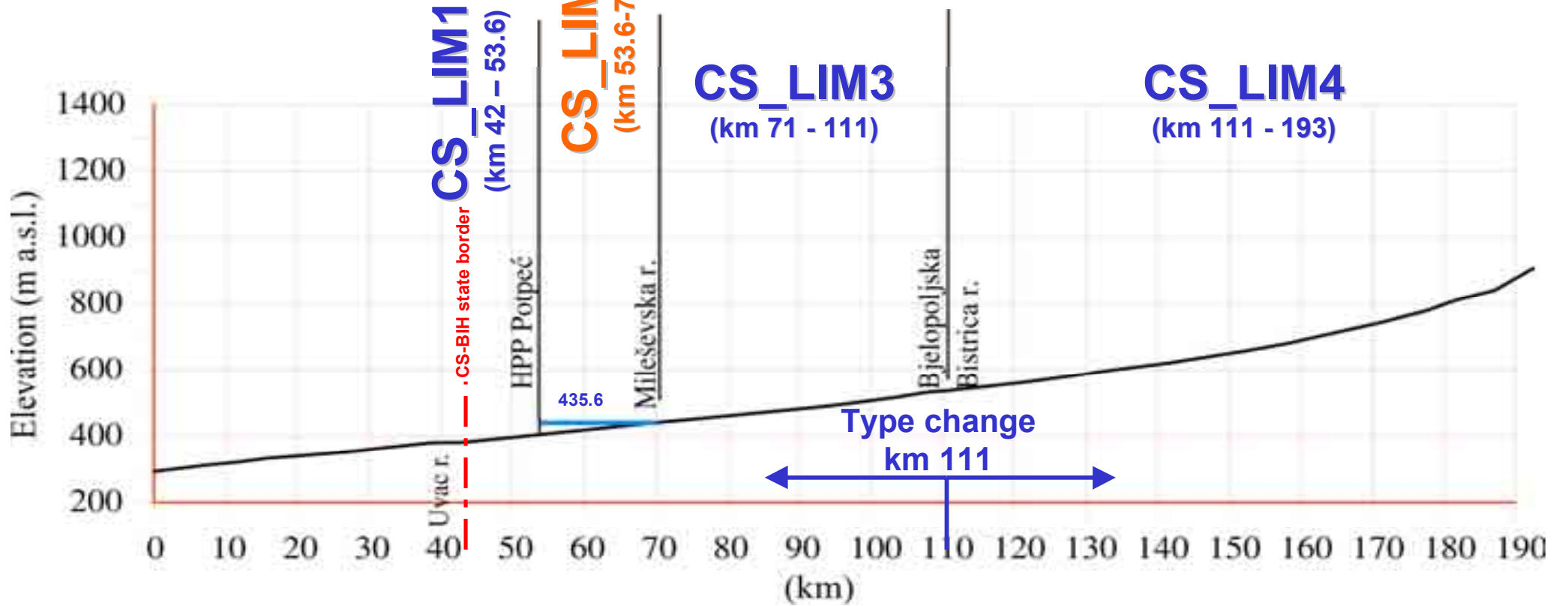
CS_NIS1 – HMWB

CS_NIS2, CS_NIS3 – natural WB



LIM RIVER

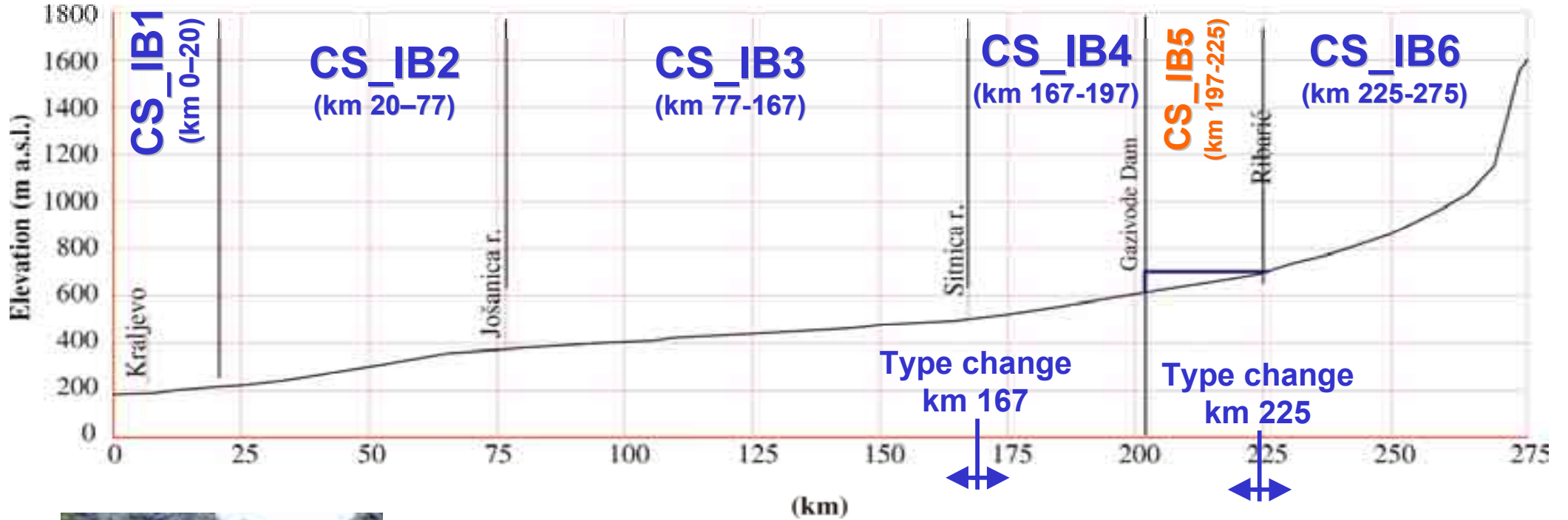
CS_LIM1, CS_LIM3, CS_LIM4 – natural WB
 CS_LIM2 – HMWB (HPP Potpec reservoir)



HPP POTPEC

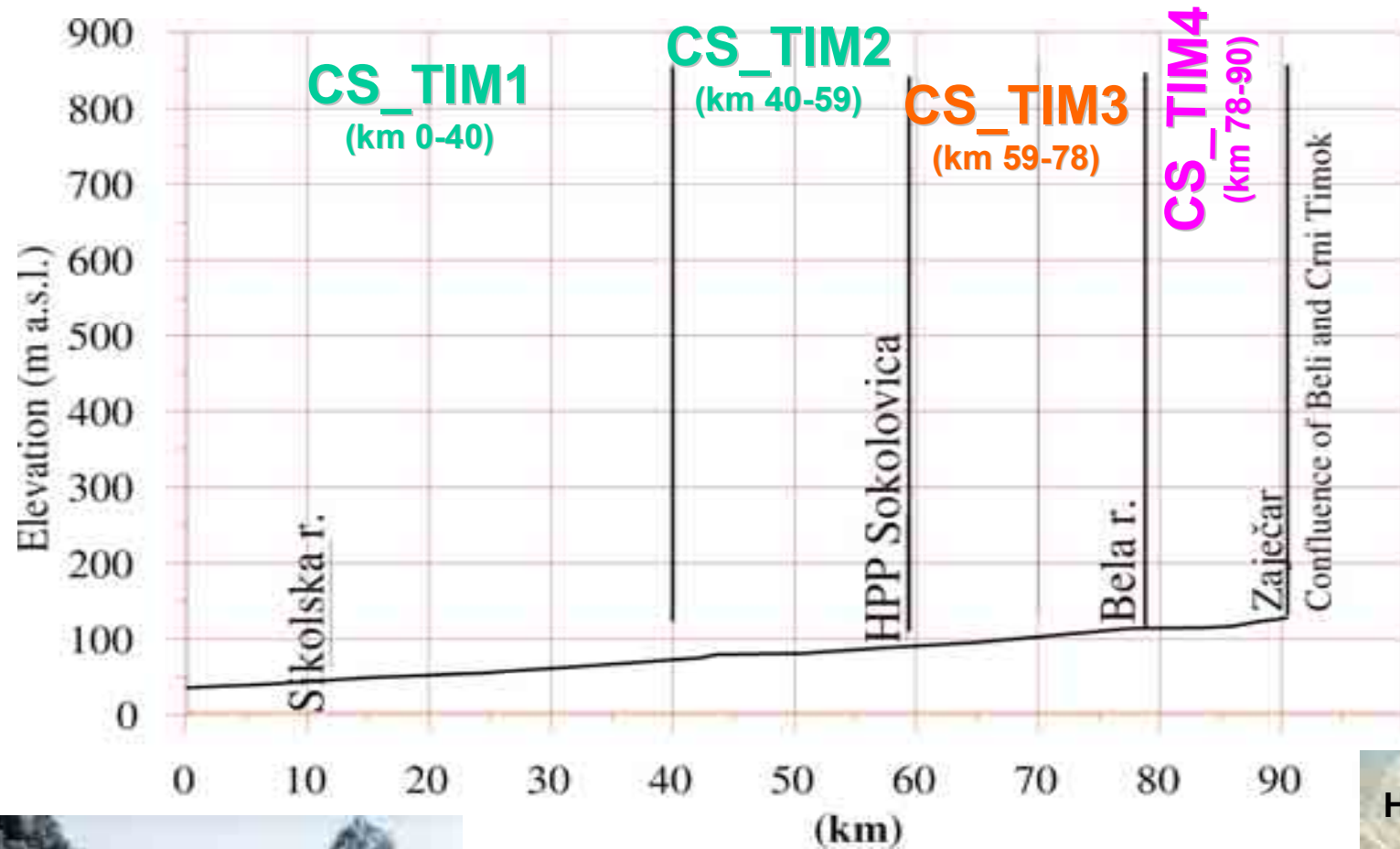


IBAR RIVER



CS_IB1, CS_IB2, CS_IB3, CS_IB4 & CS_IB6 – natural WB
 CS_IB5 – HMWB (Pridvorica and Gazivode reservoirs)

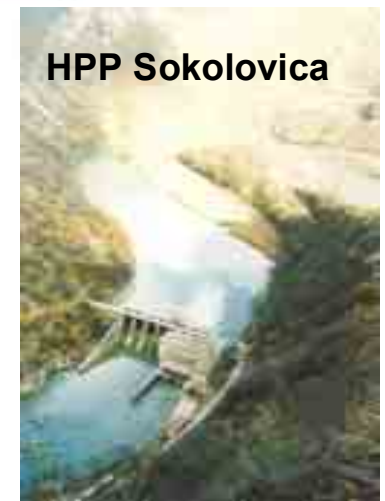
TIMOK RIVER



CS_TIM1, CS_TIM2 – HMWB candidates

CS_TIM3 – HMWB

CS_TIM4 – planned HMWB (river training works)



HPP Sokolovica

TAMIS (TIMIS) RIVER



CS_TAM2 (km 80.9 – 117.3)

- Section upstream of the Tomasevac weir - levees & change in hydrological regime
- upstream end at CS-RO state border



CS_TAM1 (km 0 – 80.9)

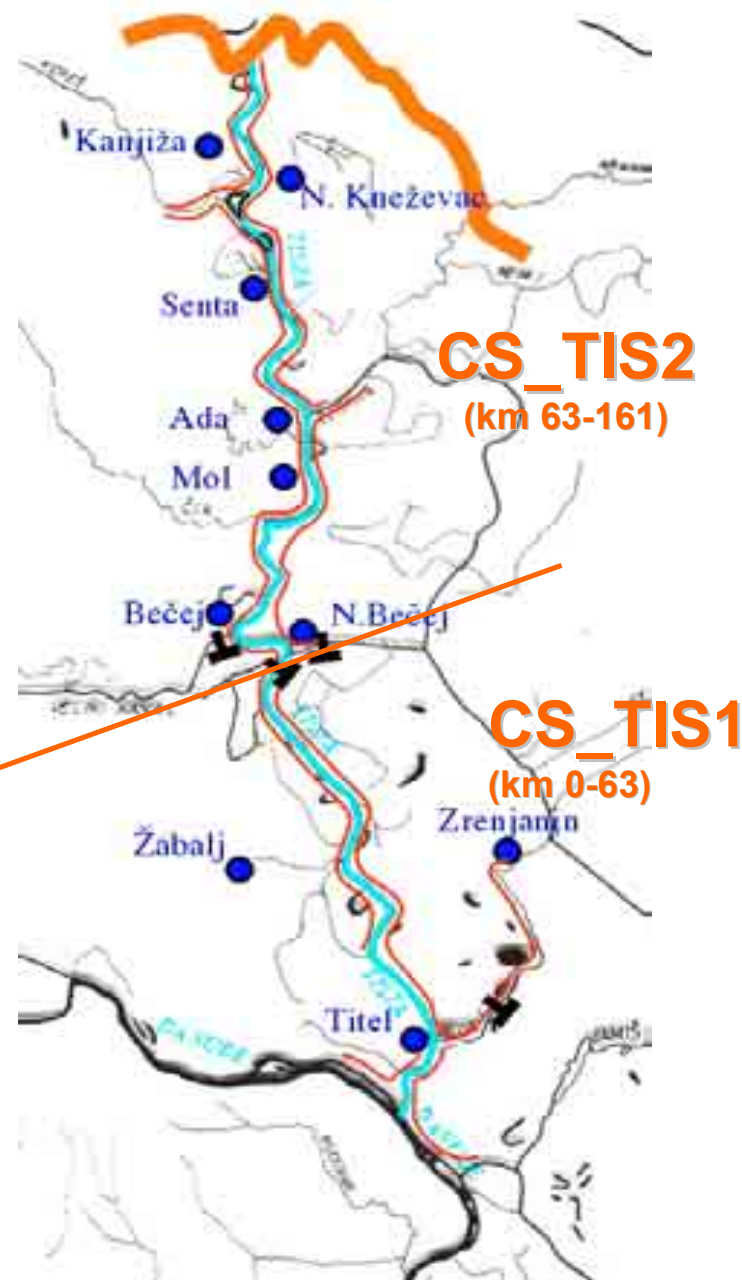
- multipurpose system Donji Tamis
- weirs: Pancevo, Opovo, Centa



TISZA RIVER

CS_TIS2 – Section upstream of the Dam on Tisza - reservoir & levees
Upstream end – CS-HU state border

CS_TIS1 – mouth to the Dam on Tisza
- shallow part of the Iron Gate reservoir & levees



DANUBE-TISZA-DANUBE CHANNEL NETWORK - **AWB**



MULTIPURPOSE SISTEM

1. Drainage
2. Irrigation
3. Water supply
4. Receiving used waters
5. Navigation
6. Conveyance of transit waters
7. Forestry
8. Fisheries
9. Tourism and recreation

The DTD Project, one of the biggest multi-purpose systems in Europe, is covering about 20.000km² of lowland area, linking or incorporating many rivers and channels. Furthermore, the Project set up new connections of the Danube and the Tisza in the Backa and the Banat region. A flexible system, accomplished by the coupling of rivers into a network, enables the choice of the water conveyance direction.

The DTD Project consists of the channel network, the Dam on the Tisza near Novi Becej and many supplementary objects (25 weirs, 5 pumping plants and 17 navigation locks). The primary channel network is 695 km long (totaling 930 km with intercepted rivers), while navigation is enabled on 600 km. Primary channels, which have the role both in the water supply and drainage, are divided with 27 steps, forming 14 basins. The water flow in primary channels is gravitational, with dictated levels.

The major structure of the DTD Project is the Dam constructed on the 63rd km of the Tisza River. The dam enables the gravitational entry of 120 m³/s of water into the channel network and the irrigation of of agricultural land in the Banat and the northern part of the Backa region.

DANUBE-TISZA-DANUBE CHANNEL NETWORK - **AWB**

Canal	Total lenght (km)
Backa region	
Becej-Bogojevo	90,20
Vrbas-Bezdan	80,90
Novi Sad-Savino Selo	39,10
Bajski kanal	12,70
Odzaci-Sombor	27,90
Backi Petrovac-Karavukovo	52,00
Prigrevica-Bezdan	31,70
Kosancic-Mali Stapar	21,10
Total lenght in Backa region	355,60
Banat region	
Banatska Palanka-Novı Becej	147,00
Bega	34,80
Navigable Bega	30,25
Kikindski kanal	32,00
Total lenght in Banat region	244,05
Total	599,65





Thank you