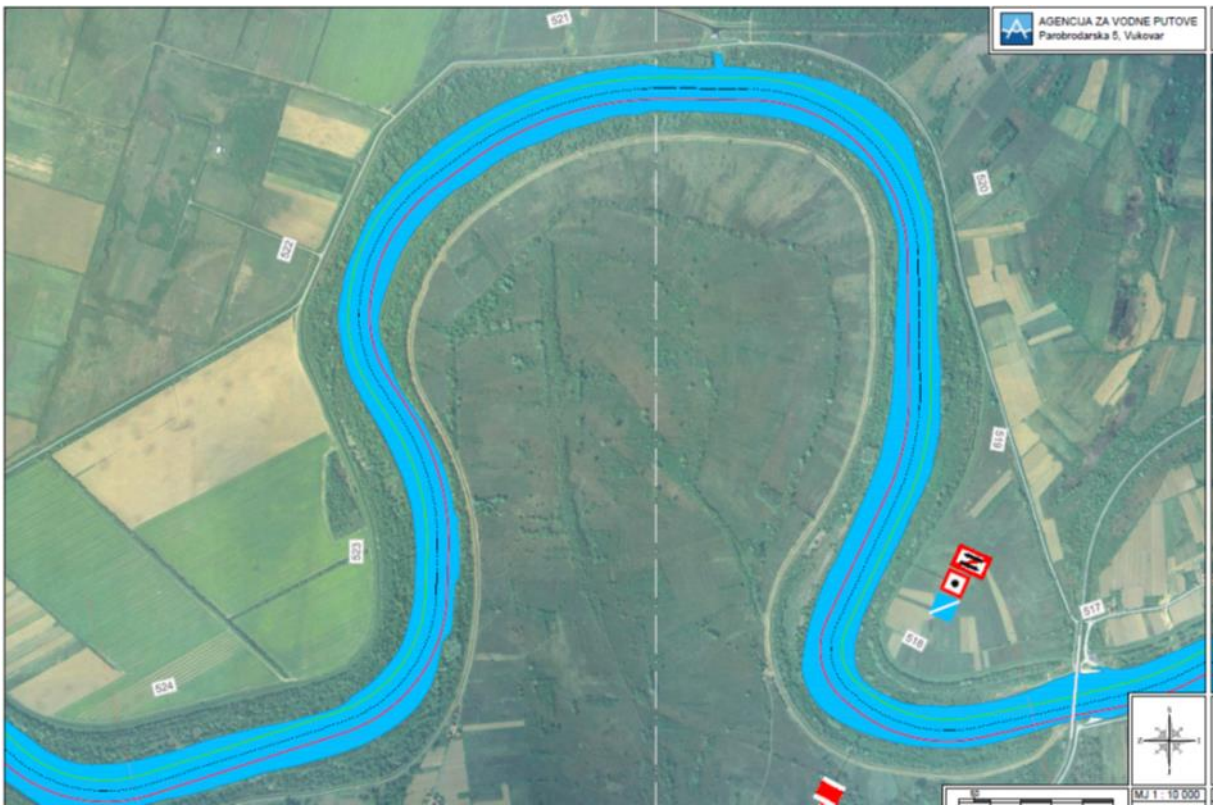
REASONING FOR THE PROPOSAL FOR THE DECLARATION OF STRETCHES OF INLAND WATERWAYS WITH SPECIFIC RISKS

1. Upper Sava (rkm 514 do rkm 594)

It is a stretch with a large number of riverbends of very small radius (8 bends with radius from 150 m to 230 m - see examples on the maps below) and frequently changing stream patterns and speed according to Article 9 para 1. (a) and (b) of the Directive (EU) 2017/2397, which makes it extremely difficult to navigate through bends, especially in downstream navigation and at high flow velocity. Entering bends of such small radius at higher water levels with high flow velocities requires special nautical knowledge.



Rkm 521-radius 170 m

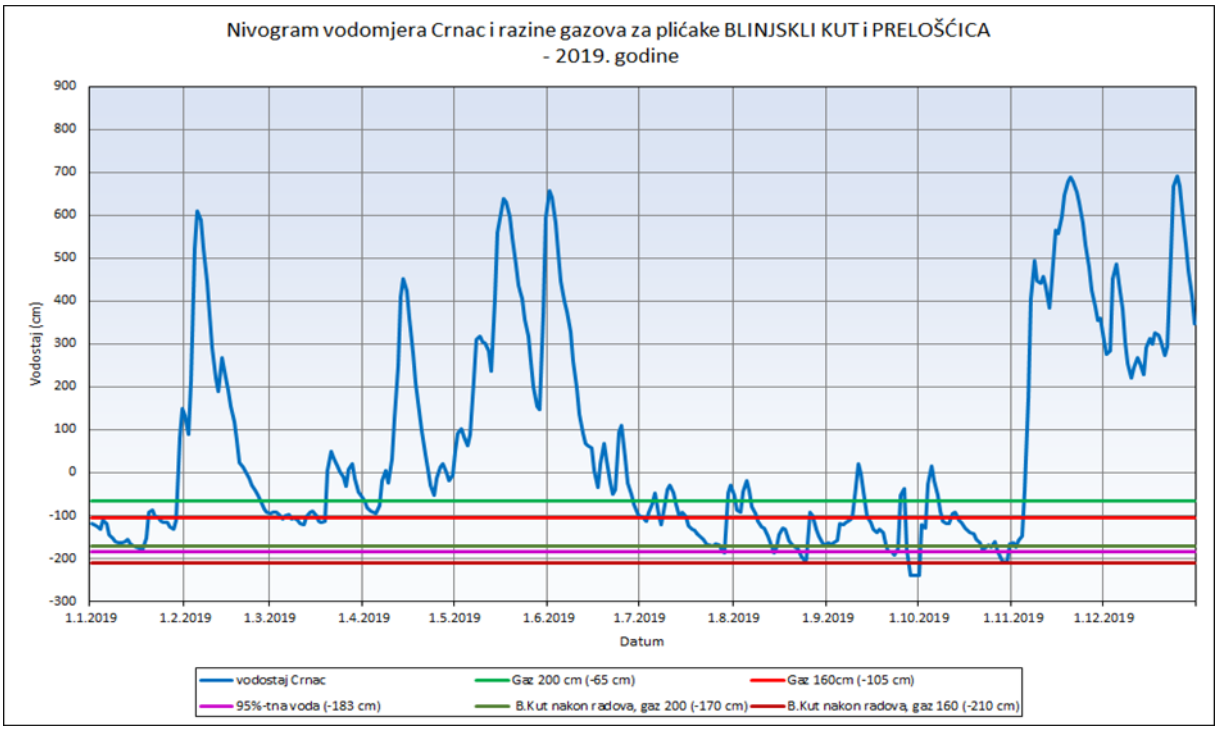
Rkm. 536-radius 190 m

Rkm. 547-radius 150 m

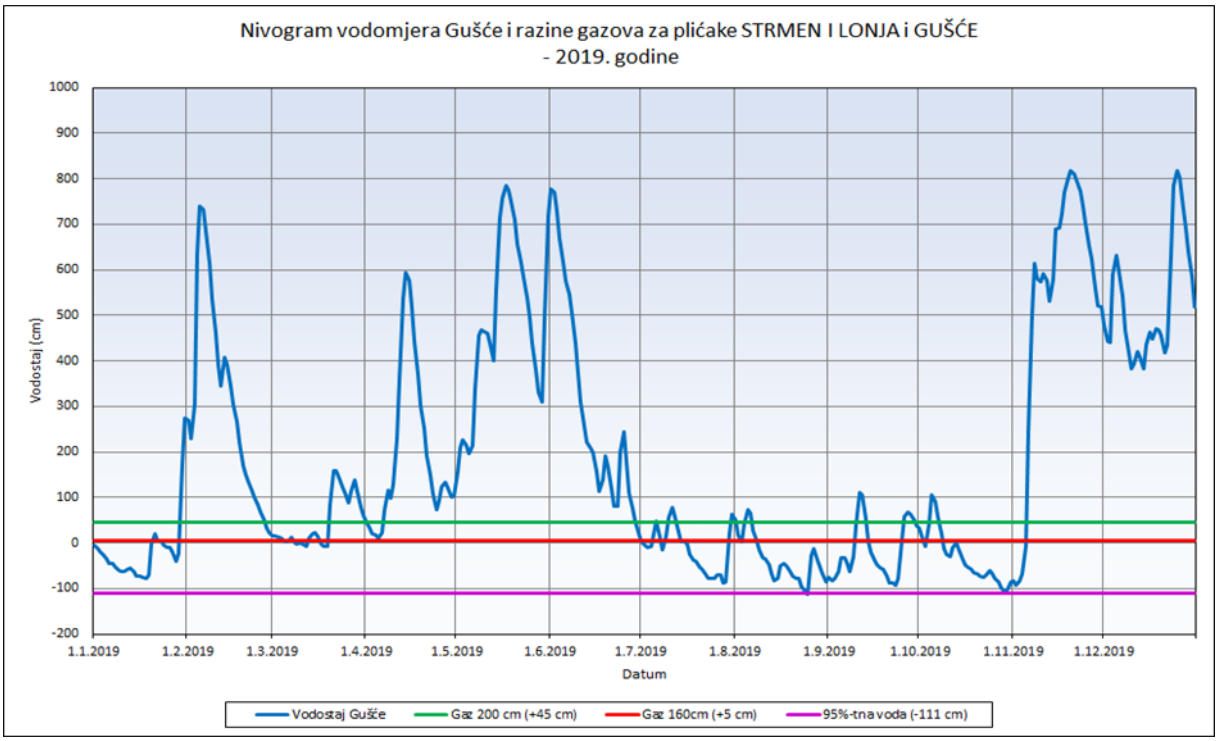
Rkm. 567-radius 230 m

Rkm. 590-radius 230 m

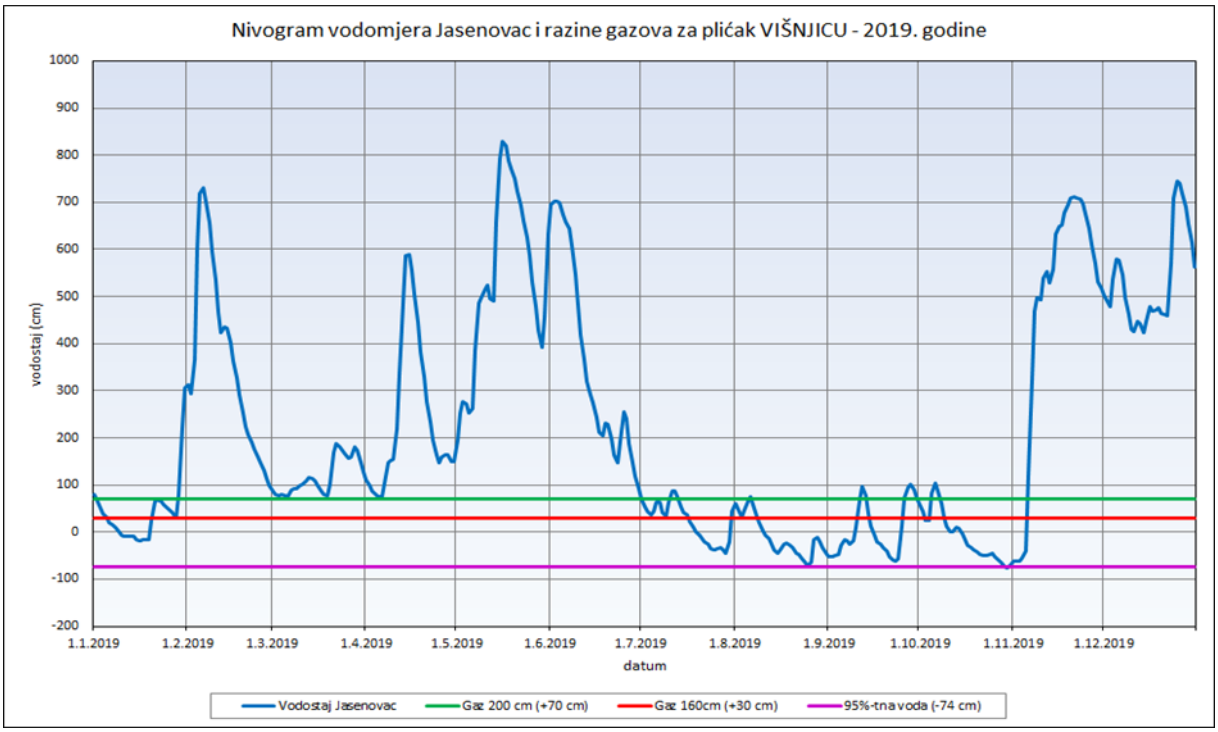
The following graphs show the frequency of water level fluctuations and above all very steep gradients on relevant wterlevel gauges where the differences between the lowest and highest water levels in 2019 were greater than 9m, while the difference between low regulation level and high water level when navigation is prohibited is approx. 9m.



Gauging station Crnac rkm. 588,2



Gauging station Gušće rkm. 572

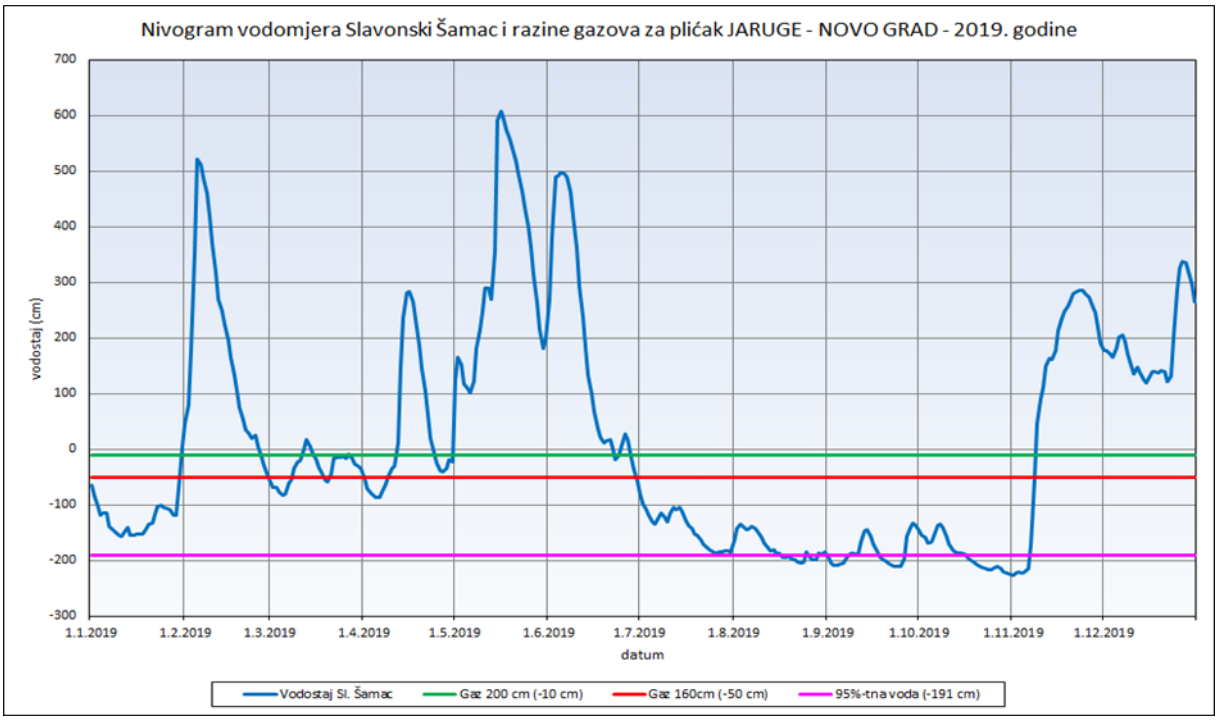


Gauging station Jasenovac rkm. 516,1

A specific local traffic regulation justified by specific hydro-morphological characteristics of the inland waterway has been established on this section (Navigation Rules in the Sava River Basin, Chapter 11) in accordance with Article 9 par 1. (c) of Directive (EU) 2017/2397. Since the meeting of vessels on certain parts of this stretch is not possible due to the width of the fairway, the radius of bends and the flow conditions, the maximum dimensions of the vessel and the convoys for navigation at certain characteristic water levels are limited. Knowledge of this special local traffic regulation is necessary for the safety of navigation.

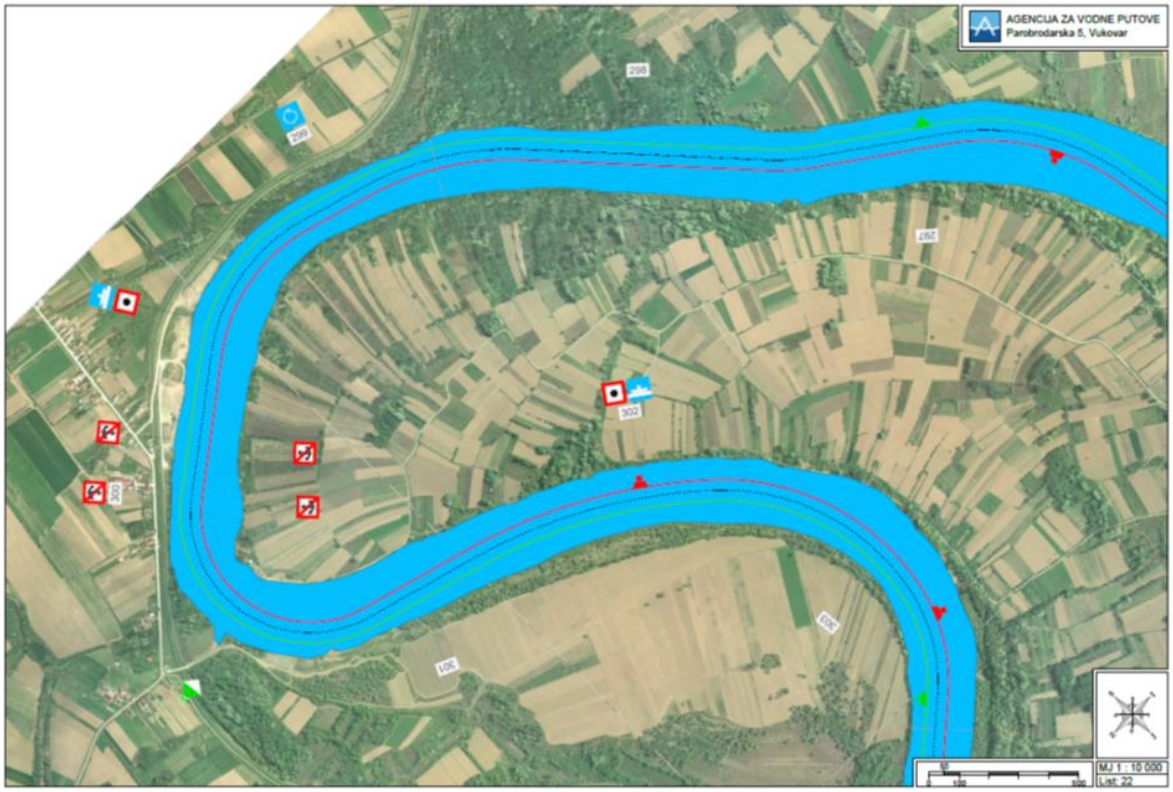
2. Dubočica-Svilaj (rkm 299 do rkm 333)

It is a stretch with frequently changing stream patterns and speed according to Article 9 para 1. (a) of the Directive (EU) 2017/2397. The difference between the water level at low regulation level and the high water level at which navigation is suspended is greater than 8 m. The flow velocity at high water levels is more than twice the velocity at low regulation level. The following graph shows the frequency of water level fluctuations and above all very steep gradients.



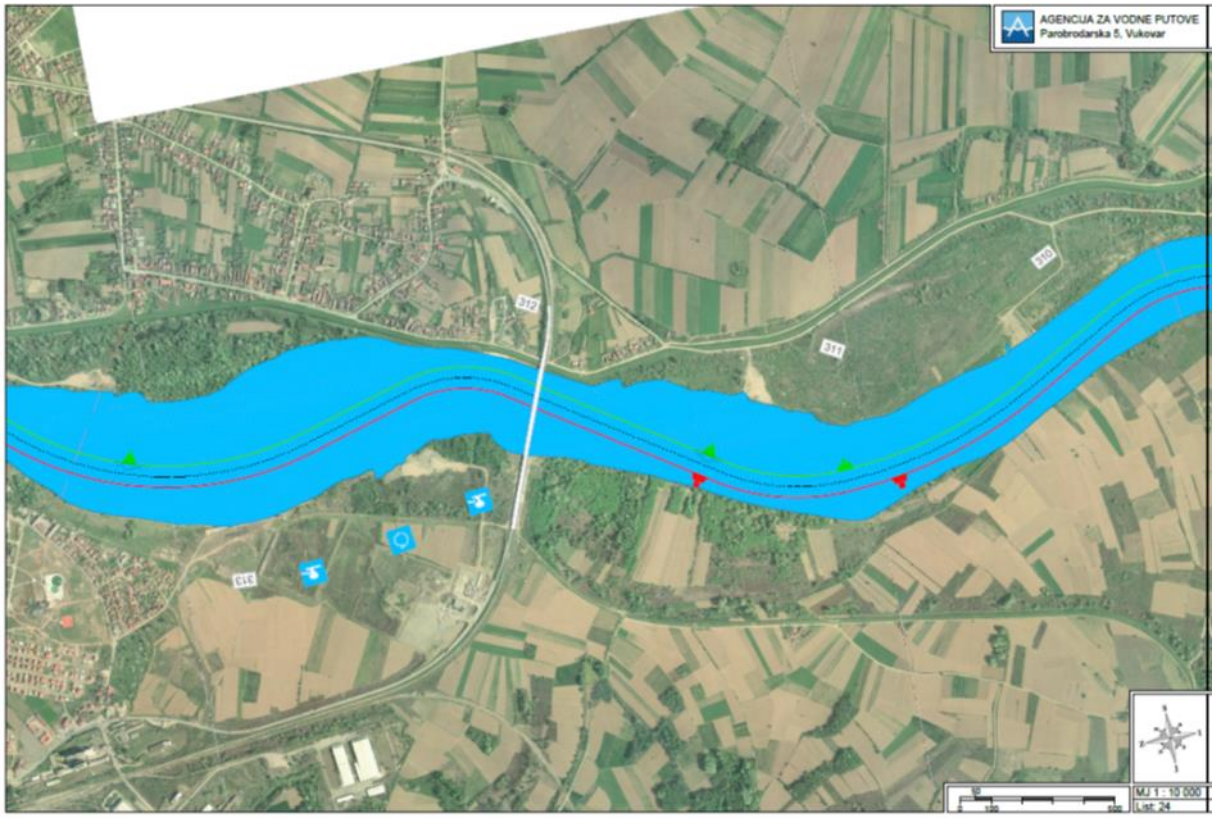
Gauging station Slavonski Šamac rkm. 314,5

Also, on this stretch there is a bend with a small radius of curvature and navigating through bend of such small radius at higher water levels with high flow velocity and sudden changes in flow patterns requires special nautical knowledge.



Rkm. 300

It is also a stretch where there is a bridge whose position of the navigable opening in relation to the fairway (the bridge is in the middle of the fairway crossing from left to right bank) requires specific maneuvering by vessels to safely pass through the bridge opening especially at high flow velocities and sudden changes in the flow pattern (see map below).



Rkm. 312

Boatmasters navigating on those stretches of the Sava River need knowledge of their hydromorphological characteristics and, for the Upper Sava stretch also knowledge of the specific local traffic regulations.

According to Article 20, para. 1 of Directive (EU) 2017/2397, the boatmaster is considered to have proved that the additional competence required for navigation on these stretches of inland waterway with specific risks if he sailed on a motor vessel falling within the scope of the Directive on the specific stretch for which he requires specific authorization 16 times during the past 10 years, of which at least 3 times upstream and 3 times downstream during the 3 years before applying for a specific authorization.

The procedure put in place for assessing applicants' competence for specific risks and specific local traffic regulations will be published on the internet in the national legal information system, as well as on the websites of the Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia in Croatian language and on the website of the Sava Commission in Croatian, Serbian, Bosnian, Slovenian and English languages. Verified data on water level gauging stations, indicative water levels and water levels at which navigation is suspended are available on the websites of Croatian Waters and the Sava Commission and are therefore publicly available.

Web sites

- Local regulation:
  https://narodne-novine.nn.hr/clanci/sluzbeni/2015_12_138_2594.html

  https://mmpi.gov.hr/more-86/unutarnja-plovidba-rijecni-promet/propisi-8644/pregled-zakonskih-i-podzakonskih-akata/15979

  http://www.savacommission.org/dms/docs/dokumenti/odluke_savske_komisije/2020_decision_20_20_navigation_rules_on_the_sava_river_basin_consolidated_text_eng/decision_20-20_navigation_rules_on_the_sava_river_basin_consolidated_text_eng.pdf

- Water levels:
  http://vodostaji.voda.hr/

  http://savahis.org/his;jsessionid=96BF8BF6305884F6A356562AC44AE985