STUDY

MONITORING OF HYDROLOGICAL, HYDRAULIC AND MORPHOLOGICAL CHARACTERISTICS OF THE DANUBE RIVER AND INVENTORY OF BIODIVERSITY COMPONENTS ON THE JOINT CROATIAN-SERBIAN SECTOR OF THE DANUBE RIVER

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION





Client: Ministry of the Sea, Transport and

Infrastructure

Project number: I-2206/24

In Osijek, October 2024.

Preparing FAIRway2 works in the Rhine Danube Corridor (2019-EU-TM-0262-S and 2019-HR-TMC-0263-S)

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Project number: I-2206/24

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INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

Ministry of the Sea, Transport and Infrastructure	
Danube river from rkm 1295,5 (llok) to rkm 1433,1 (border with Hungary)	
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In Osijek, October 2024.

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1.0	Final draft (English version)	January, 2024	IT
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1 INTRODUCTION

The subject of this project is the implementation of an inventory of all river regulation infrastructures related to navigation on the Danube River section from km 1295.5 to km 1433.1 as part of the project "Monitoring of hydrological, hydraulic and morphological characteristics of the Danube River and inventory of components biodiversity on the joint Croatian-Serbian sector of the Danube River". The general goal of the project is to ensure the foundation for a joint strategy and coordinated activities of Croatia and Serbia in order to maintain the Danube as an important international waterway in a way that will not endanger the remaining ecosystems and their biodiversity, and will continuously adapt to the current conditions in the river course and its banks through appropriate adaptive planning. This project performed the monitoring of parameters relevant for maintaining the navigational route on the joint Croatian-Serbian section of the Danube River from km 1295.5 (Ilok) to km 1433.1 (border with Hungary). The following tasks were required as part of the project:

- Determining the condition of all river regulation infrastructure along the entire joint Croatian-Serbian section of the Danube.
- Digitizing existing cadastral tables (in accordance with the documents titled " Katastar shematski oblik građevina " and " Katastar tablice ").
- Photographing and documenting all river regulation infrastructures at water levels that allow for visual inspection.
- Preparing an Elaborate inventory of all river regulation infrastructures related to navigation, which includes the following: in table overview, displaying the name and type of the infrastructure, the chainage of the infrastructure, and the condition of the infrastructure (bad condition, satisfactory condition, good condition, excellent condition), accompanied by the collected field photographs (infrastructure photographed from multiple angles for a detailed visual impression).



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2 METHODOLOGY OF INVENTORISATION OF RIVER REGULATION INFRASTRUCTURE

During the period from October 12 to November 13, 2023, fieldwork was conducted for the inventory of river regulation infrastructure along the left and right banks of the Danube River, from river kilometre 1295+500 (llok) to river kilometre 1433+100 (border with Hungary). The activities included geodetic surveying, photographing, and documenting all river regulation infrastructure in the specified area. Geodetic surveying encompassed both planimetric and altimetric surveying of individual structures. The photographing of river regulation infrastructures was done with location representation (GPS coordinates) and visual depiction of each infrastructure from upstream and downstream sides. Field notes were taken describing the position and condition of each infrastructure.

In total, 99 river regulation infrastructures on the right bank of the Danube and 93 river regulation infrastructures on the left bank, including revetments, groynes, parallel structures, imported fills, thresholds, and barriers, (in total 192) were processed. During the fieldwork, some of the structures were not observed and geodetic surveyed (imported fills, thresholds, groynes), 25 structures overall, and therefore are not shown in this document.

After the fieldwork, the infrastructures were analysed and documented in various textual and graphical formats:

- Serial number of the structure on the left or right bank
- River regulation infrastructure mark (e.g., 1423 river kilometre of the infrastructure,
 D5 right bank, fifth object (L = left bank))
- Infrastructure type: revetment, groyne, T-groyne, parallel structure, imported fills or barrier
- Chainage of the river regulation infrastructure— exact river kilometre of the infrastructure, for groyne and barriers in river kilometres, and for revetment, parallel structures and imported fills, the range from river kilometre to river kilometre
- Length of the river regulation infrastructure in meters (for groynes length is parallel with the flow.
- Crown or toe elevation of river regulation infrastructure in meters above sea level
- Mark and page number in the "Cadastral Register"
- Location of the infrastructure on an orthophoto base
- Pictures of the infrastructure
- Analysis of the condition and functionality of the river regulation infrastructure and additional notes

Examples of graphical and textual descriptions of river regulation infrastructures are shown in Figure 2.1. For each regulation structure (Chapter 3), 78 structures on the left bank of the Danube and 89 structures on the right bank of the Danube were presented, totalling 167 structures.



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Functionality of river regulation infrastructure is described according to its role in river regulation.

Type of river regulation infrastructure	Functionality of river regulation infrastructure
Barrier	Barrier on backwater flow failed /finished at low water level.
Revetment	River bank protection from erosion ongoing/failed at low /medium /high water levels.
Groyne	Effect of material deposition ongoing/ failed/ finished (upstream, downstream).
Parallel structure	Effect of material deposition ongoing/ finished (upstream, downstream).
Imported fill	River bank protection from further erosion ongoing

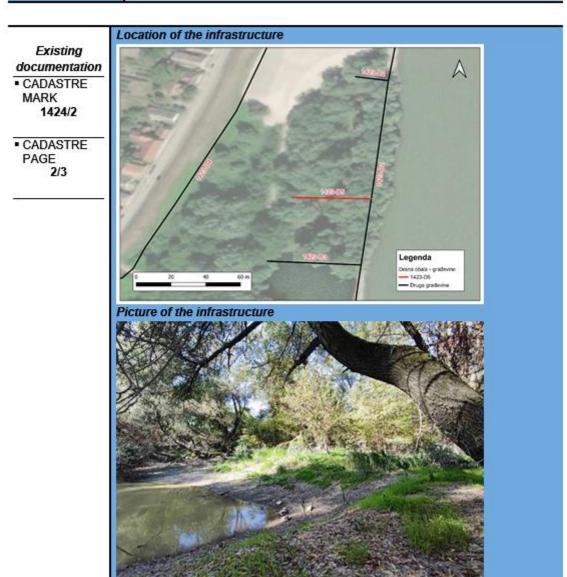
The condition of the river regulation infrastructure was assessed in four categories.

- Bad condition
- Satisfactory condition
- Good condition



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

16. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation (mnm)
1423-D5	Groyne	1423+825	45,36	83,11



- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream,downstream).
- Material deposit upstream and downstream of the groyne and overgrowth of plants are visible.
 Stone material is not visible.

Figure 2.1. Example of graphical and textual description of a river regulation infrastructure



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In the table overview of river regulation infrastructures (Chapter 4), in addition to the data from graphical and textual descriptions of river regulation infrastructures, information from the "Cadastral Register Table" has been incorporated for each structure:

- River regulation infrastructure mark-Cadastre** mark
- River regulation infrastructure mark-Cadastre** page
- Crown width of river regulation infrastructure m Cadastre**
- Slope inclinations upstream- Cadastre**
- Slope inclinations downstream- Cadastre**
- Cross-sectional area of river regulation infrastructure- Cadastre**
- Year of execution of works- Cadastre**

Chapter 5 presents graphical attachments of river regulation infrastructures from river kilometre 1295 to 1433 on 16 maps, illustrating all river regulation infrastructures with categorizing infrastructures according to their types on a digital orthophoto base.

^{**}Data retrieved from the "Cadastral Register Table"



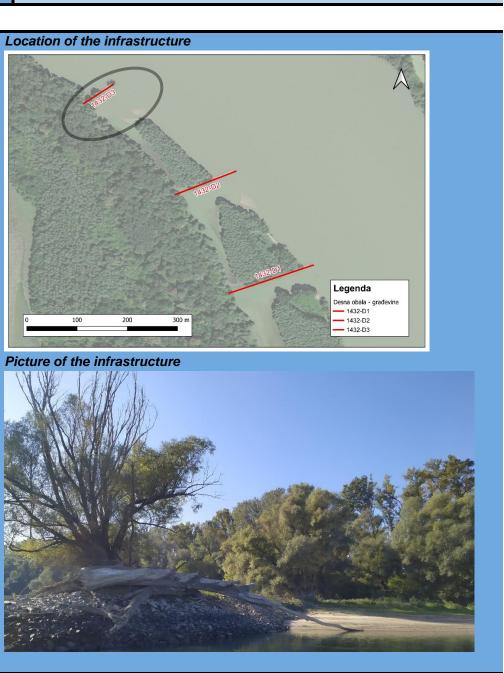
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

3 GRAPHICAL AND TEXTUAL DESCRIPTIONS OF RIVER REGULATION INFRASTRUCTURES

3.1 RIVER REGULATION INFRASTRUCTURE - RIGHT BANK

1. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1432-D3	Groyne	1432+638	81,06	83,05
1432 03				

- CADASTRE MARK
 It is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"





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 1. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1432-D3
 Groyne
 1432+638
 81,06
 83,05



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne, the beginning of material deposition upstream and downstream of the groyne and trees on the groyne crown are visible.

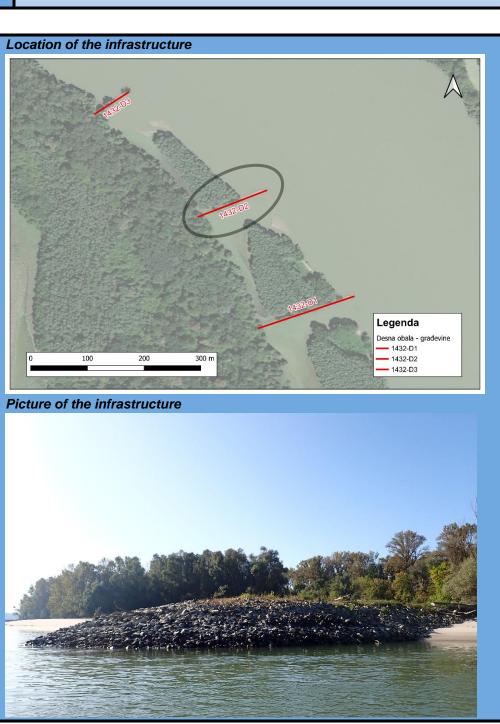


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 2. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1432-D2
 Groyne
 1432+339
 137,41
 82,33

- CADASTRE MARK 1432/1
- CADASTRE PAGE 2/1





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 Z. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1432-D2
 Groyne
 1432+339
 137,41
 82,33



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Upstream on the groyne, stone washout under the groyne crown connection is visible.

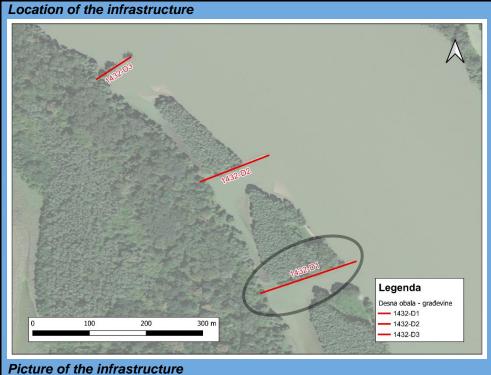


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 3. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1432-D1
 Groyne
 1432+073
 185,72
 82,20

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"



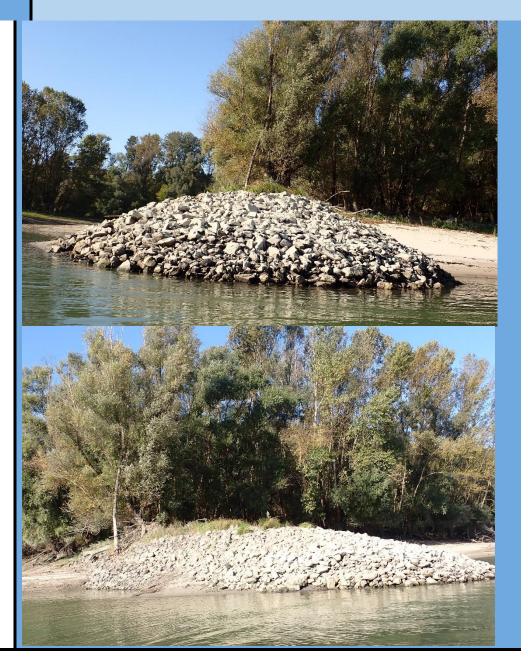




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 3. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1432-D1
 Groyne
 1432+073
 185,72
 82,20



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Upstream on the groyne, stone washout under the groyne crown connection is visible.

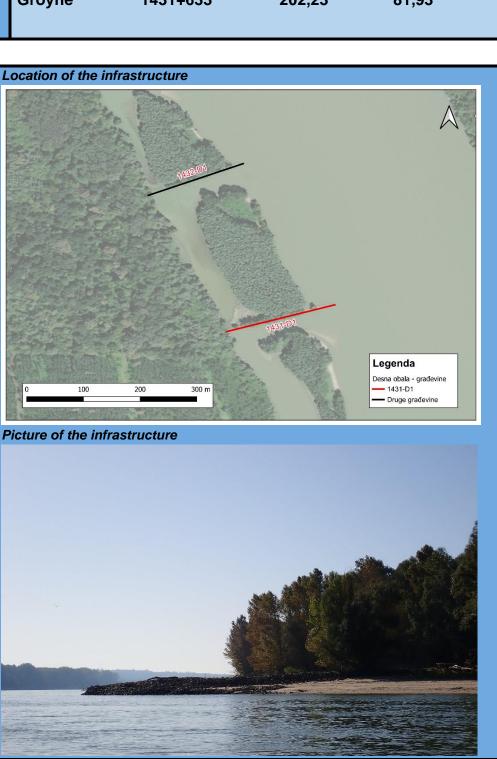


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 4. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1431-D1
 Groyne
 1431+633
 202,23
 81,93

- CADASTRE MARK 1431/1
- CADASTRE PAGE 2/1





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 4. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1431-D1
 Groyne
 1431+633
 202,23
 81,93



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Upstream on the groyne, stone washout under the groyne crown connection is visible.



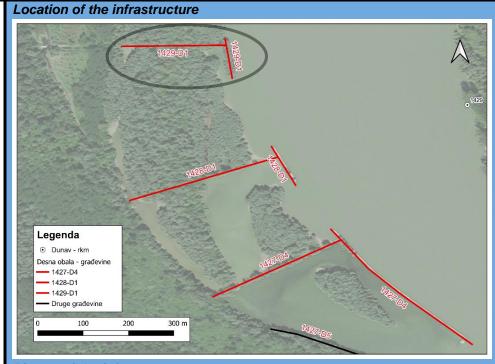
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 5. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1429-D1
 T-groyne
 1429+282
 124,15
 82,45

- CADASTRE MARK 1428/3
- CADASTRE PAGE 2/2



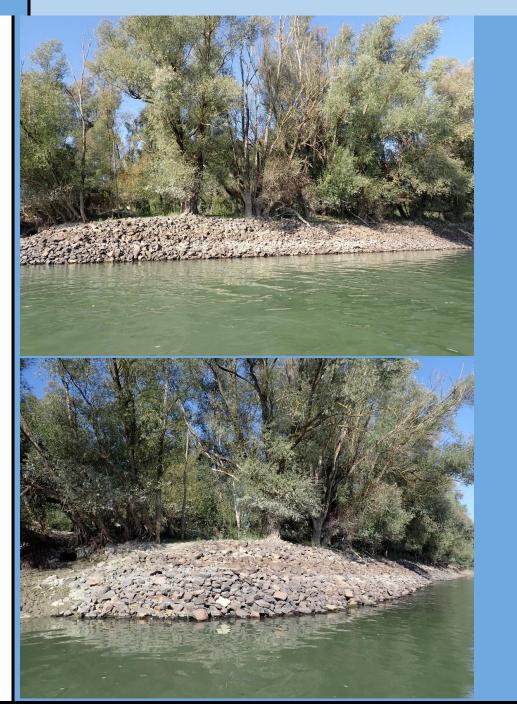




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 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1429-D1
 T-groyne
 1429+282
 124,15
 82,45



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Stone material of groyne head and plants and trees on groyne crown head are visible. Material
 deposit and overgrowth of trees on groyne connection are visible.

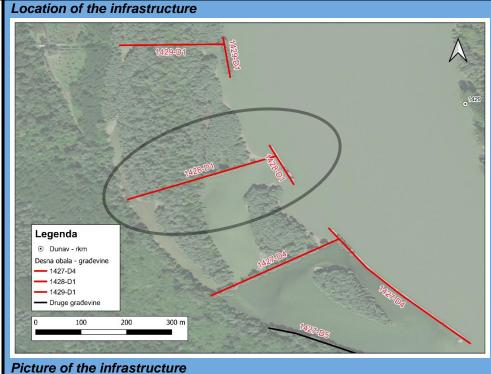


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 6. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1428-D1
 T-groyne
 1428+940
 132,56
 82,32

- CADASTRE MARK 1428/2
- CADASTRE PAGE 2/2







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 6. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1428-D1
 T-groyne
 1428+940
 132,56
 82,32



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. The beginning of material deposition upstream and downstream of the groyne and plants and trees on groyne crown are visible.



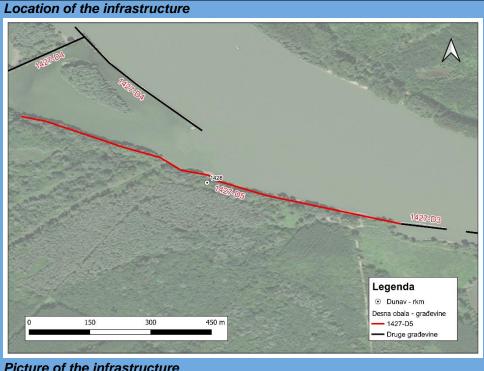
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7. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1428+442 do 1015,98 82,16 1427+617

- CADASTRE MARK 1427/1
- CADASTRE PAGE 2/2



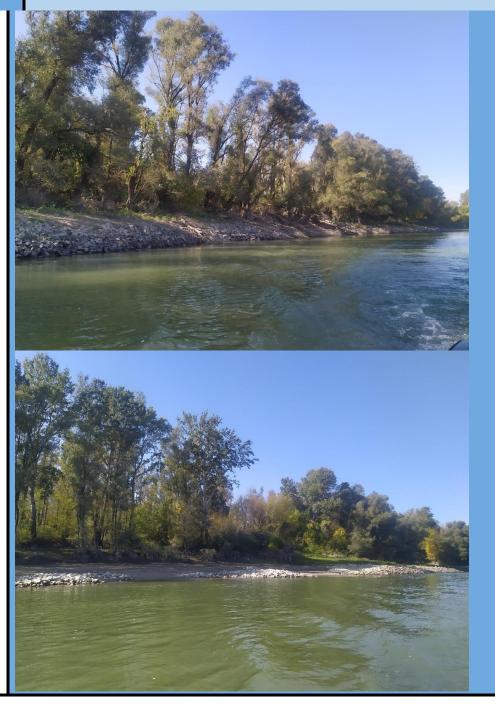




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7. Right bank Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

1427-D5 Revetment 1428+442 do 1015,98 82,16 1427+617



- Infrastructure is in satisfying condition.
- River bank protection from erosion ongoing at low water levels.
- The beginning of revetment downstream of the groyne 1427-D4 is visible. The river bank is partially collapsed and overgrown with trees and vegetation. The end of revetment is visible upstream of the parallel 1427-D3.

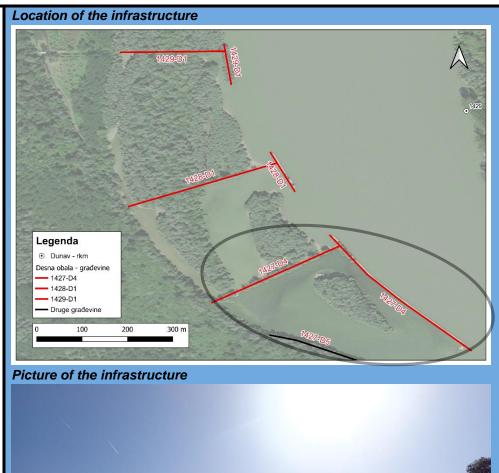


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 8. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1427-D4
 T-groyne
 1427+615
 479,10
 82,95

- CADASTRE MARK 1428/1
- CADASTRE PAGE 2/2







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 8. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1427-D4
 T-groyne
 1427+615
 479,10
 82,95



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. The beginning of material deposition upstream and downstream of the groyne and plants and trees on groyne crown are visible.



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9. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation (m.a.s.l.)
1427-D3	Parallel structure	1427+617 do 1427+524	114,10	81,89

- CADASTRE MARK 1427/2
- CADASTRE PAGE 2/2







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9. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1427-D3	Parallel	1427+617 do	114,10	81,89
1421-03	structure	1427+524		



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Parallel structure continues on a revetment 1427-D5. Vegetation is visible on the crown of the parallel structure.



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 10. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1427-D2
 Parallel structure with groyne
 1427+480 do 183,92
 81,23

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







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10. Right bank

Chainage (r.km)

Length (m)

Crown elevation

(m.a.s.l.)

1427-D2

Parallel structure with

Type:

1427+480 do 1427+307 183,92

81,23





- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Rooting of the parallel is connected to the barrier 1427-D1. Stone material and material deposit upstream of the parallel structure are visible.

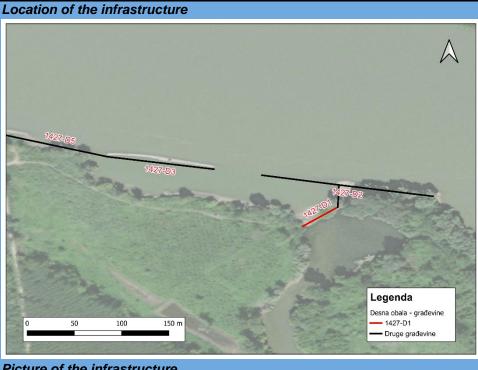


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 11. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1427-D1
 Barrier
 1427+395
 47,02
 82,83

- CADASTRE MARK 1427/3
- CADASTRE PAGE 2/2







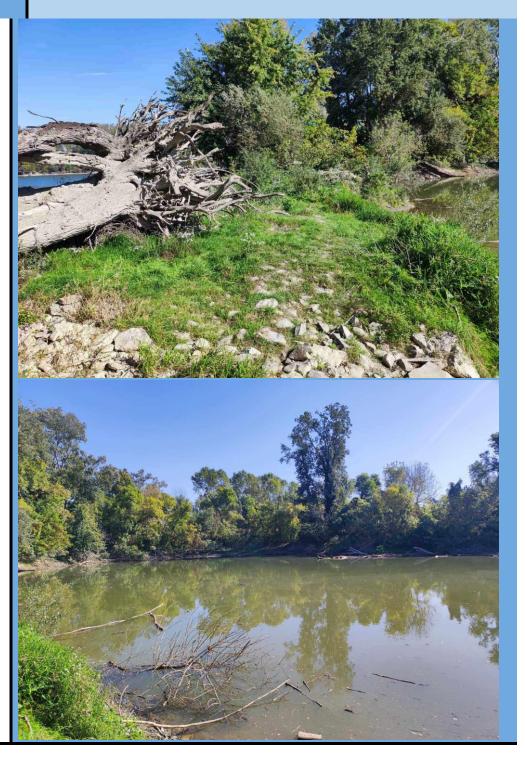
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 11. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1427-D1
 Barrier
 1427+395
 47,02
 82,83



- Infrastructure is in satisfying condition.
- Barrier on backwater flow finished at low water level.
- Barrier is not visible from the river side. Vegetation is visible on the crown of the barrier.



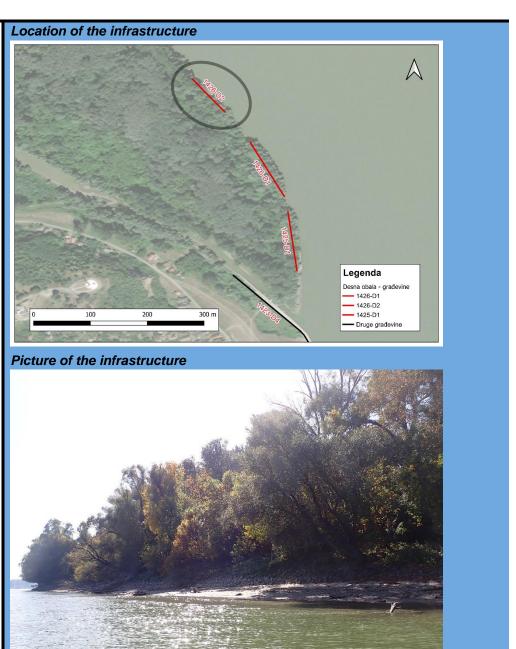
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 12. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1426-D2
 Parallel structure
 1426+444 do 1426+303
 99,63
 82,33

Existing documentation

- CADASTRE MARK 1426/3
- CADASTRE PAGE 2/2



- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream, downstream).
- Bevel of the stone connected to the river bank is visible. Material deposition upstream and downstream is visible as well as overgrowth of vegetation.



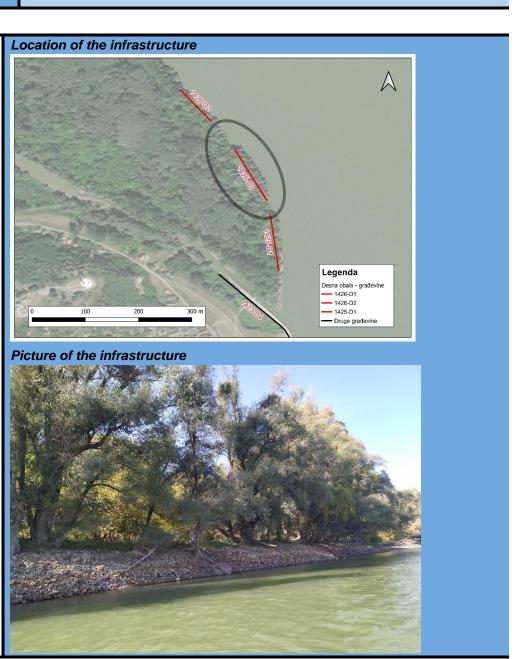
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 13. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1426-D1
 Groyne
 1426+131
 148,22
 81,95

Existing documentation CADASTRE MARK 1426/2

■ CADASTRE PAGE 2/2



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Stone material of bevel of groyne head connected to the river bank is visible. Material deposit upstream and downstream of the groyne and overgrowth of plants are visible.



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 14. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1425-D1
 Groyne
 1425+895
 147,87
 82,40

Existing documentation

- CADASTRE MARK 1426/1
- CADASTRE PAGE 2/2



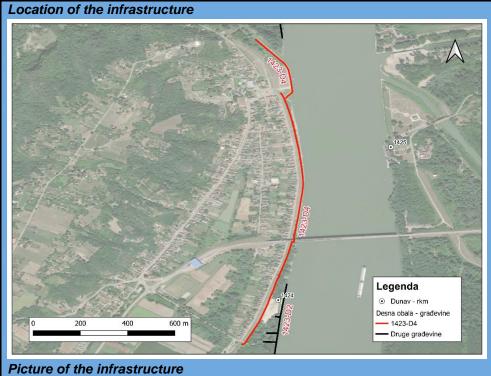
- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Stone material of bevel of groyne head connected to the river bank is visible. Material deposit upstream and downstream and overgrowth of plants are visible.



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15. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation (m.a.s.l.)
1423-D4	Revetment	1425+717 do 1423+743	1581,78 + 410,67	89,00

- CADASTRE MARK 1424/1
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15. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1425+717 do 1581,78 + 89,00
1423+743 410,67



- Infrastructure is in excellent condition.
- River bank erosion protection ongoing at high water levels.
- City-type revetment. Confluence of Karašica river and revetment near passenger wharf Batina are
 in excellent condition Downstream of the wharf, revetment is in the process of reconstruction
 (embankment Gomboš-Batina).



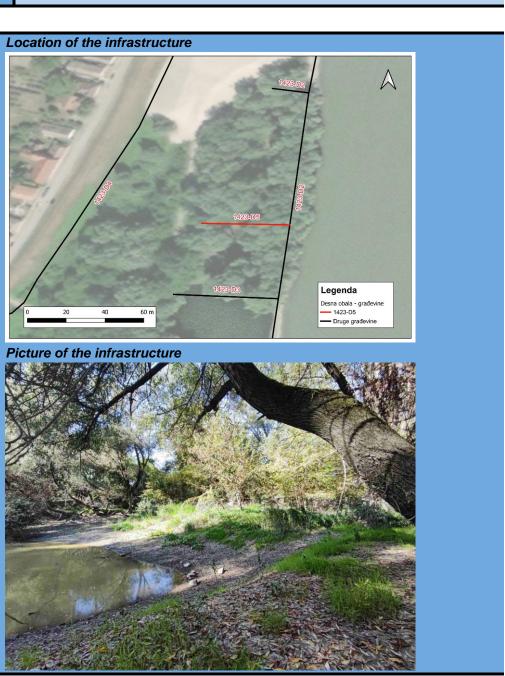
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 16. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1423-D5
 Groyne
 1423+825
 45,36
 83,11

Existing documentation

- CADASTRE MARK 1424/2
- CADASTRE PAGE 2/3



- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream, downstream).
- Material deposit upstream and downstream of the groyne and overgrowth of plants are visible. Stone material is not visible.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 17. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1423-D3
 Groyne
 1423+773
 54,03
 82,35

Location of the infrastructure Existing documentation CADASTRE MARK 1424/3 CADASTRE **PAGE** 2/3 Legenda Desna obala - građevine — 1423-D1 - 1423-D3 Druge grad Picture of the infrastructure

- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream, downstream).
- Material deposit upstream and downstream of the groyne and overgrowth of plants are visible. Stone material is not visible.



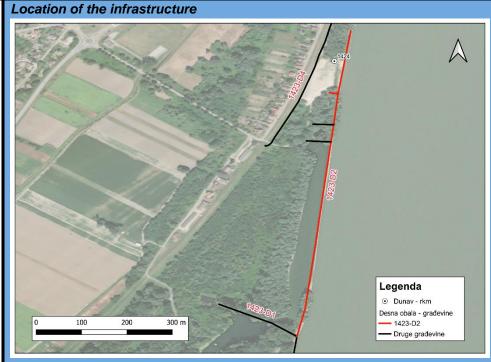
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

18. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1423-D2	Parallel structure	1424+102 do	970,43	81,97
1723-02	structure	1423+211		

- CADASTRE MARK 1423/3
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 17. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1423-D3
 Groyne
 1423+773
 54,03
 82,35



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Stone material of parallel structure is visible. Material deposition and overgrowth of vegetation can be seen on the groyne connected to the river bank. Parallel structure continues on a revetment 1423-D4.



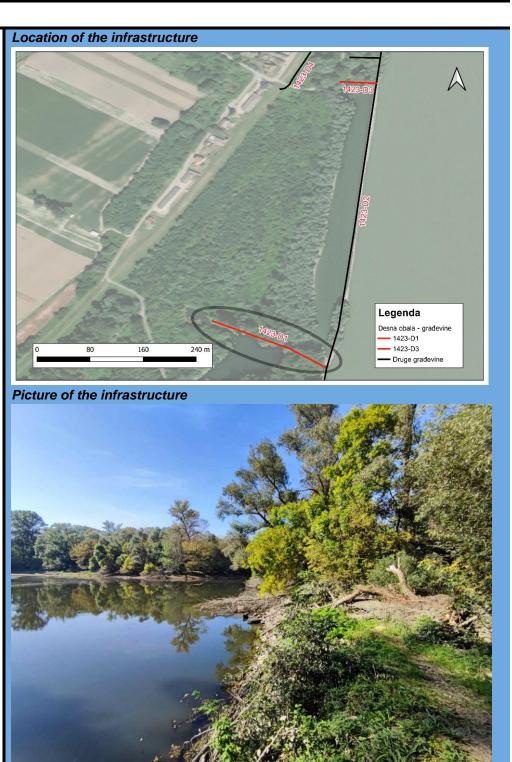
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 19. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1423-D1
 Barrier
 1423+211
 200,03
 83,21

Existing documentation CADASTRE MARK 1423/2 CADASTRE

PAGE 2/3

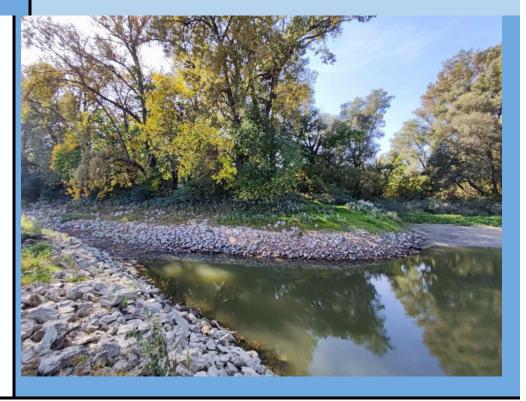




Project num	ber: I-2206/24	
Main design	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 19. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1423-D1
 Barrier
 1423+211
 200,03
 83,21



- Infrastructure is in good condition.
- Barrier on backwater flow finished at low water level.
- Barrier is covered with dirt and vegetation. Stone material of barrier can be partially seen. Also, vegetation on the crown of the barrier is present.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
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 20. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-D2
 Revetment
 1423+211 do 1422+590
 620,66
 85,32

- CADASTRE MARK 1423/4
- CADASTRE PAGE 2/3

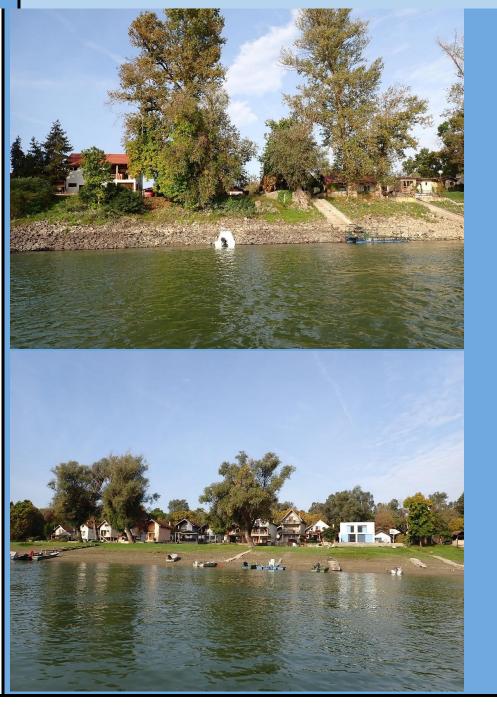




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 20. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-D2
 Revetment
 1423+211 do 1422+590
 620,66
 85,32



- Infrastructure is in good condition.
- River bank erosion protection ongoing at medium water levels.
- Stone revetment in settlement "Zeleni otok". Concrete staircases and approaches to pontoons for boats along the bevels.

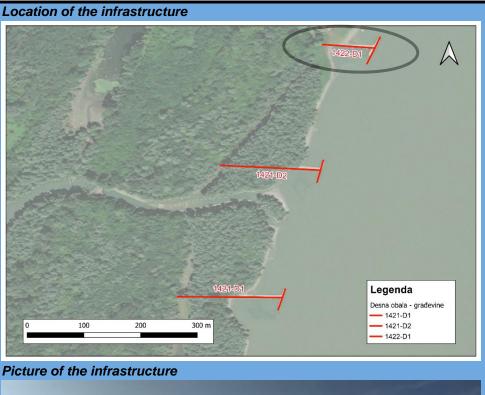


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 21. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-D1
 T-groyne
 1422+025
 69,87
 81,76

- CADASTRE MARK 1422/1
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-D1
 T-groyne
 1422+025
 69,87
 81,76



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Collapsed part of the groyne head is visible. Material deposit upstream and downstream of the groyne is visible.

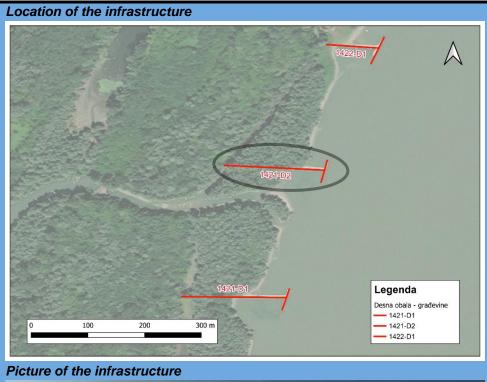


Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 22. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1421-D2
 T-groyne
 1421+655
 55,22
 81,71

- CADASTRE MARK 1421/3
- CADASTRE PAGE 2/3



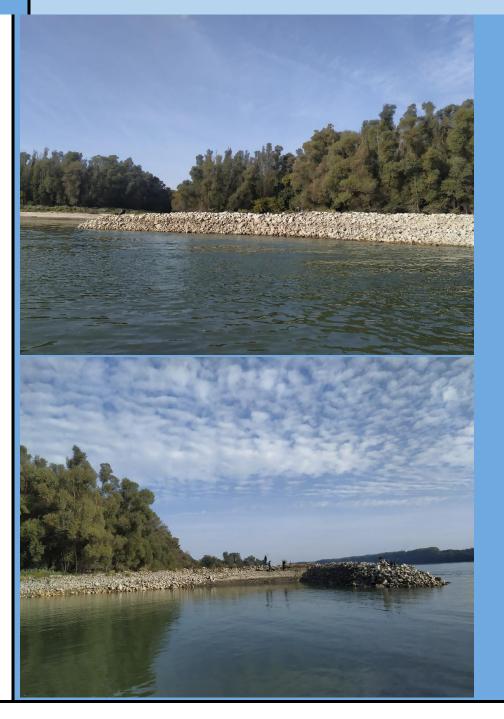




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1421-D2
 T-groyne
 1421+655
 55,22
 81,71



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.

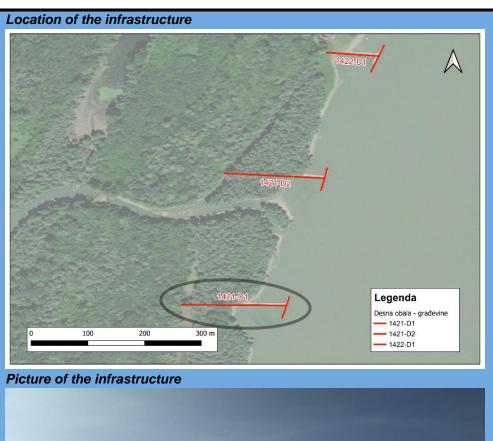


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 23. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1421-D1
 T-groyne
 1421+288
 52,42
 81,71

- CADASTRE MARK 1421/2
- CADASTRE PAGE 2/3







Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1421-D1
 T-groyne
 1421+288
 52,42
 81,71



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Collapsed part of the groyne head and material deposit upstream and downstream of the groyne are visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

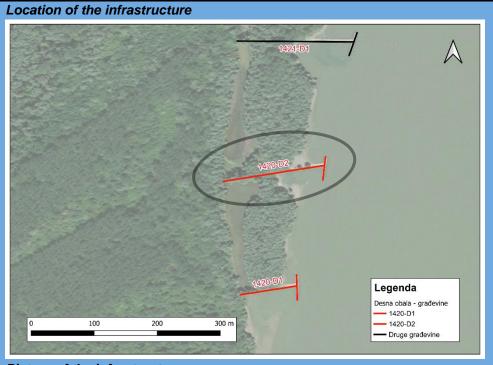
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 24. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1420-D2
 T-groyne
 1420+980
 52,21
 81,82

- CADASTRE MARK 1421/1
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 24. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1420-D2
 T-groyne
 1420+980
 52,21
 81,82



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Collapsed part of the groyne head and material deposit upstream and downstream of the groyne are visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.

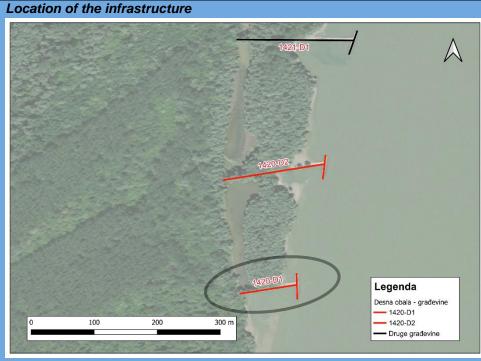


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 25. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1420-D1
 T-groyne
 1420+748
 56,29
 81,77

- CADASTRE MARK 1420/1
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1420-D1
 T-groyne
 1420+748
 56,29
 81,77



- Infrastructure is in good condition..
- Effect of material deposition ongoing (upstream, downstream).
- Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.

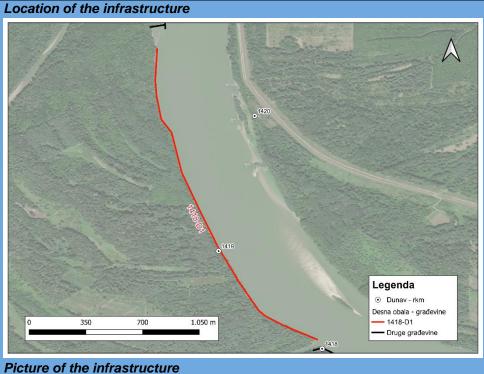


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 26. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1418-D1
 Revetment
 1420+760 do 1418+067
 2862,74
 81,19

- CADASTRE MARK 1418/1
- CADASTRE PAGE 2/3 2/4







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1418-D1
 Revetment
 1420+760 do 1418+067
 2862,74
 81,19



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment above which is a stone river bank overgrown with plants and trees. Revetment ends at the entrance in Zmajevački Dunavac.



Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

27. Right bank Length (m) Crown elevation Type: Chainage (r.km) (m.a.s.l.) T-groyne 1417+876 96,09 79,48 1417-D4

Location of the infrastructure Existing documentation CADASTRE 1417/1 CADASTRE Legenda Desna obala - građevine — 1417-D3 1417-D4 300 m Picture of the infrastructure

Analysis

MARK

PAGE 2/4

- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Stone material of groyne head is visible. Groyne connection is overgrown with plants and covered with sand.



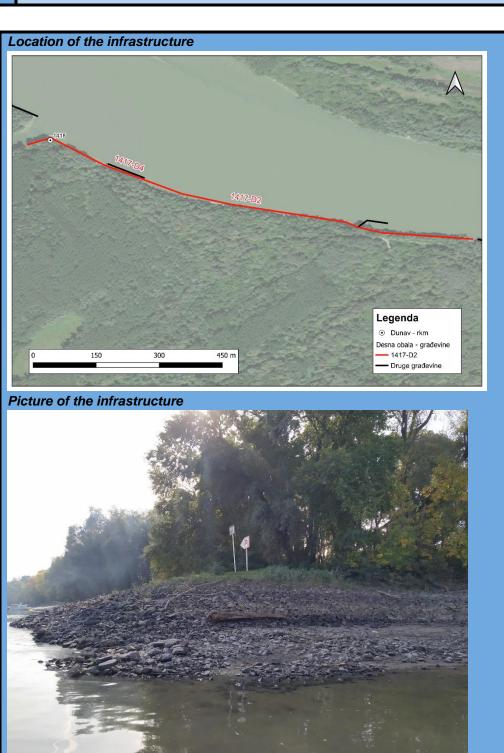
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 28. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1417-D2
 Revetment
 1418+032 do 1417+169
 1137,08
 81,14

- CADASTRE MARK 1417/2
- CADASTRE PAGE 2/4





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 28. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1417-D2
 Revetment
 1418+032 do 1417+169
 1137,08
 81,14



- Infrastructure is in satisfying condition.
- River bank erosion protection ongoing at low water levels.
- Revetment is partially collapsed. Behind groyne 1417-D4 stone material of revetment is not visible.



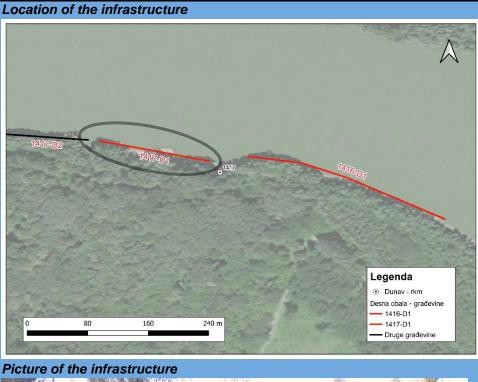
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1417-D1
 Parallel structure
 1417+156 do 149,82
 80,38

- CADASTRE MARK 1416/1
- CADASTRE PAGE 2/4



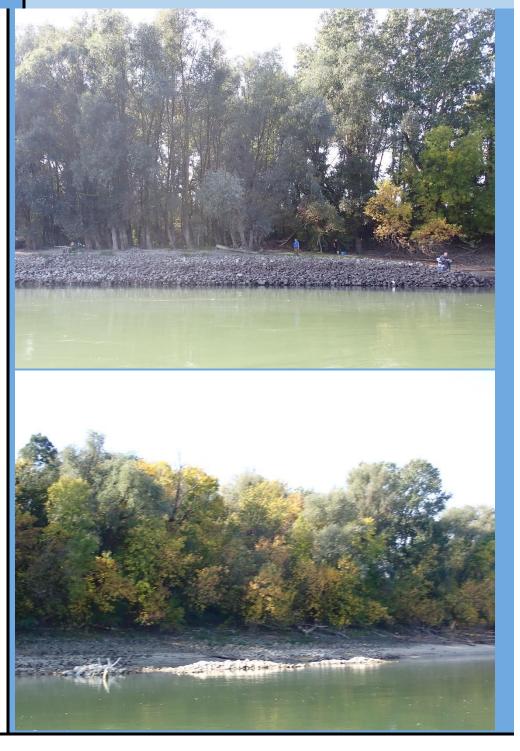




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 29. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1417-D1
 Parallel structure
 1417+156 do 149,82
 80,38



- Infrastructure is in good condition.
- Effect of material deposition failed (upstream, downstream).
- Stone material of parallel structure is visible and it has an irregular geometry.



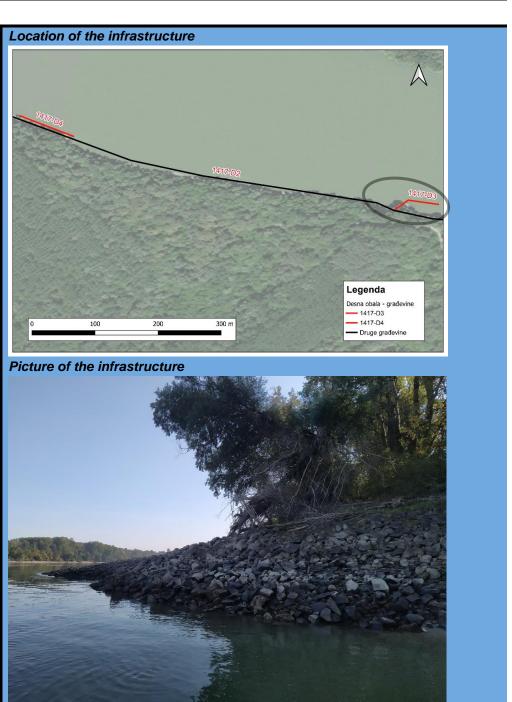
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1417-D3
 T-groyne
 1417+371
 48,50
 79,12

Existing documentation CADASTRE MARK 1416/2 CADASTRE PAGE 2/4



- Infrastructure is in satisfying condition..
- Effect of material deposition ongoing (upstream, downstream).
- Sand deposit upstream and downstream of the groyne. Stone material of groyne head is visible.

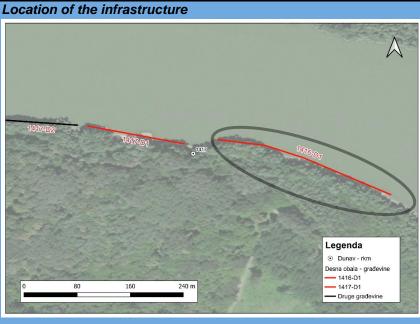


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

31. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1416-D1	Parallel	1416+982 do	289,00	81,25
1410-01	structure	1416+769		

Existing documentation CADASTRE MARK 1416/3

PAGE **2/4**





- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material deposition upstream and downstream of the parallel structure is present. Stone material of parallel structure at low water levels can be seen.



STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

32. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1412-D1	Revetment	1412+888 do	518,67	80,27
1712-01		1412+363		

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
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 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1412-D1
 Revetment
 1412+888 do 1412+363
 518,67 80,27



- Infrastructure is in satisfying condition.
- River bank erosion protection ongoing at low water levels.
- Stone material of revetment is visible. Revetment is partially washed away and geotextile is spotted beneath the stone material.

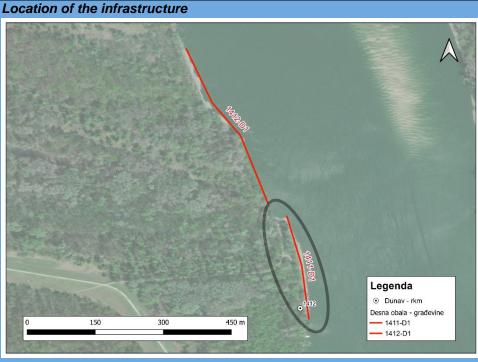


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 733. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1411-D1
 Revetment
 1412+307 do 1411+967
 325,62
 80,94

- CADASTRE MARK 1412/1
- CADASTRE PAGE2/5







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1411-D1
 Revetment
 1412+307 do 1411+967
 325,62
 80,94



- Infrastructure is in excellent condition.
- River bank erosion protection ongoing at low water levels.
- Stone material of revetment and vegetation above it are visible.

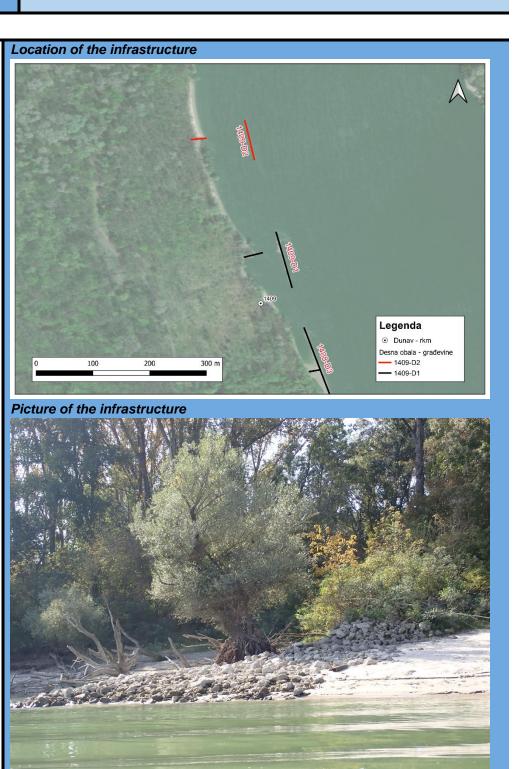


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 34. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1409-D2
 T-groyne
 1409+413
 98,57
 78,89

- CADASTRE MARK 1409/2
- CADASTRE PAGE 2/6





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 74. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1409-D2
 T-groyne
 1409+413
 98,57
 78,89



- Infrastructure is in bad condition..
- Effect of material deposition failed.
- Stone material of groyne head and rooting of groyne are visible. Groyne head and groyne connection are separated.



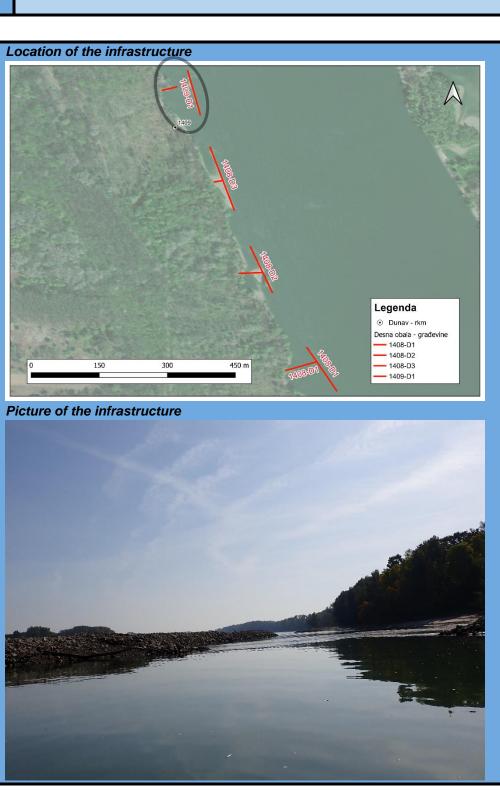
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 75. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1409-D1
 T-groyne
 1409+115
 139,74
 80,48

Existing documentation CADASTRE MARK 1409/1

• CADASTRE PAGE 2/6





Project numb	er: I-2206/24	
Main designe	r: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 75. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1409-D1
 T-groyne
 1409+115
 139,74
 80,48



- Infrastructure is in bad condition.
- Effect of material deposition failed.
- Stone material of groyne head and rooting of groyne are visible. Groyne head and groyne connection are separated.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 36. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-D3
 T-groyne
 1408+819
 203,94
 80,88

- CADASTRE MARK 1408/3
- CADASTRE PAGE 2/6







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-D3
 T-groyne
 1408+819
 203,94
 80,88



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. Material deposition on the river bank downstream
 of the groyne, upstream still in the function of material deposition.

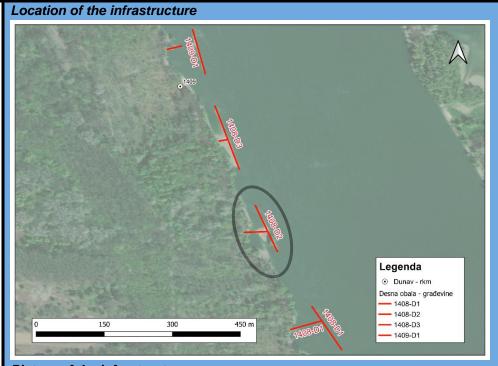


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 37. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-D2
 T-groyne
 1408+532
 151,05
 80,89

- CADASTRE MARK 1408/2
- CADASTRE PAGE2/6







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 77. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-D2
 T-groyne
 1408+532
 151,05
 80,89



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. Material deposition on the river bank downstream
 of the groyne, upstream still in the function of material deposition. Trees are visible on the groyne
 crown.



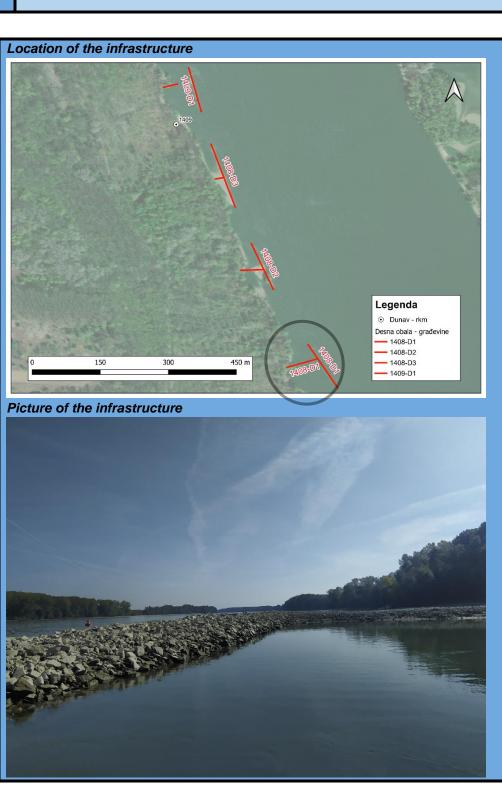
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-D1
 T-groyne
 1408+245
 149,85
 80,05

Existing documentation CADASTRE MARK 1408/1

• CADASTRE PAGE 2/6





Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-D1
 T-groyne
 1408+245
 149,85
 80,05



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. The beginning of material deposition upstream
 and downstream of the groyne is present. Downstream on the groyne connection, stone washout
 under the groyne crown connection is visible.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 79. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1407-D2
 Parallel structure
 1407+860 do 111,89
 79,14

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

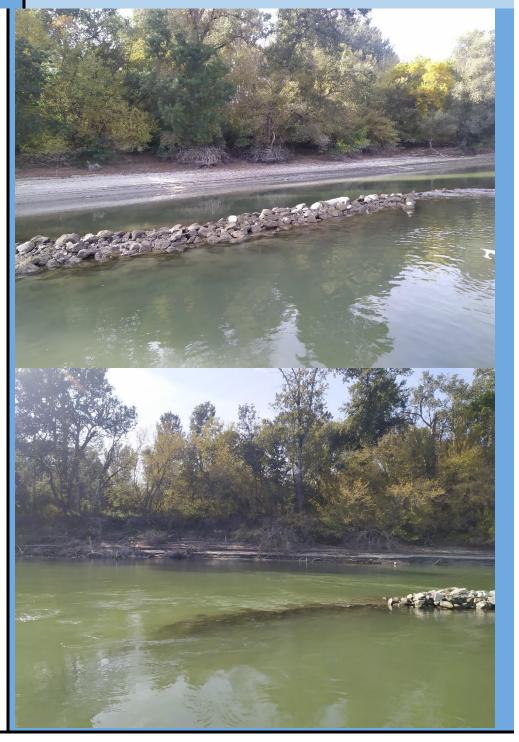
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

39. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Parallel 1407+860 do 111,89 79,14

structure 1407+751



- Infrastructure is in bad condition.
- Effect of material deposition failed (upstream, downstream).
- Collapsed stone material of parallel structure is visible at low water levels.



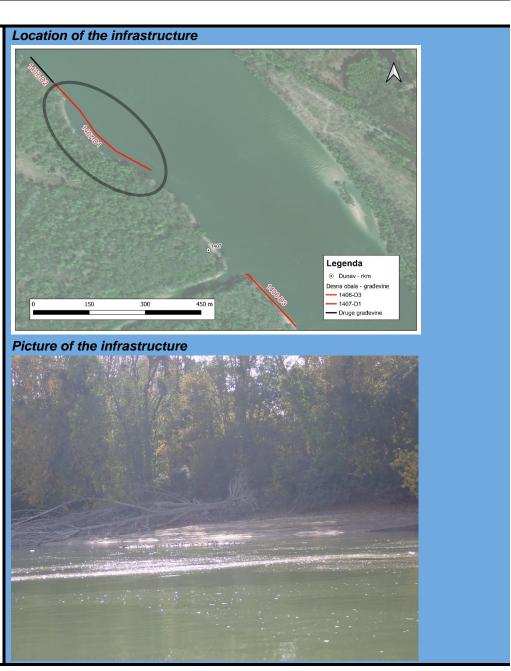
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 40. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1407-D1
 Revetment
 1407+751 do 1407+335
 432,75
 78,63

Existing documentation

- CADASTRE MARK1407/1
- CADASTRE PAGE 2/6



- Infrastructure is in bad condition..
- River bank erosion protection failed.
- Stone revetment. Washout and collapse of river bank behind revetment are spotted. Stone material is visible at low water levels.



STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 41. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1406-D3
 Revetment
 1406+978 do 1406+667
 238,98
 81,10

Existing documentation CADASTRE MARK 1406/1 CADASTRE PAGE 2/6







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 41. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1406-D3
 Revetment
 1406+978 do 1406+667
 238,98
 81,10



- Infrastructure is in excellent condition.
- River bank erosion protection ongoing at low water levels.
- Stone material of revetment is visible as well as vegetation above it. Revetment is continuous.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 42. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1406-D2
 T-groyne
 1406+281
 91,25
 80,39

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project numl	ber: I-2206/24	
Main design	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 42. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1406-D2
 T-groyne
 1406+281
 91,25
 80,39



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- T-groyne, stone material of groyne head and groyne connection is visible. Newly built groyne.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 43. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1406-D1
 Groyne
 1406+001
 32,98
 81,09

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
CTUDY	

43. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1406-D1	Groyne	1406+001	32,98	81,09



- Infrastructure is in excellent condition...
- Effect of material deposition ongoing (upstream, downstream).
- Stone material of groyne connection is visible. Newly built groyne.

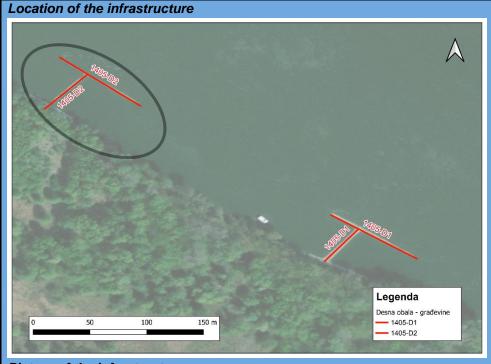


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 44. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1405-D2
 T-groyne
 1405+691
 93,24
 79,77

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 44. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1405-D2
 T-groyne
 1405+691
 93,24
 79,77



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- T-groyne, stone material of groyne head and groyne connection is visible. Newly built groyne.



STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 45. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1405-D1
 T-groyne
 1405+383
 93,25
 81,38

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

 45. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1405-D1
 T-groyne
 1405+383
 93,25
 81,38



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- T-groyne, stone material of groyne head and groyne connection is visible. Newly built groyne.

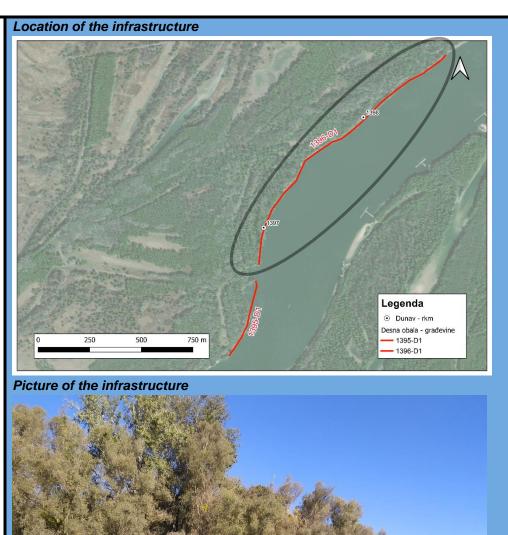


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 46. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1396-D1
 Revetment
 1398+575 do 1396+740
 1762,99
 80,39

- CADASTRE MARK 1397/1
- CADASTRE PAGE 2/8





Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 46. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1396-D1
 Revetment
 1398+575 do 1396+740
 1762,99
 80,39



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment above which is a stone river bank overgrown with plants and trees. A part of approx. 100 meters of the revetment has been washed away, no stone material is visible.

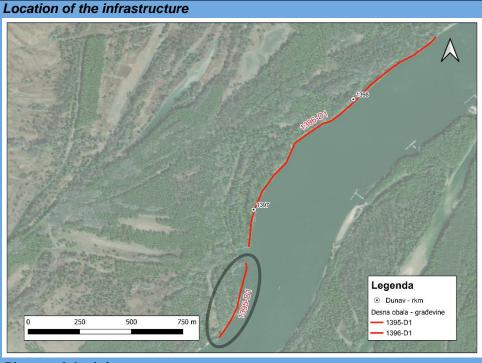


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 47. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1395-D1
 Imported fill
 1396+614 do 1395+959
 531,47
 80,88

- CADASTRE MARK 1395/1
- CADASTRE PAGE 2/8







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 47. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1395-D1
 Imported fill
 1396+614 do 1395+959
 531,47
 80,88



- Infrastructure is in satisfying condition.
- River bank protection from further erosion ongoing.
- Stone material on bevel of the river bank is visible, as well as vegetation above the stone material. At downstream part of landfill, stone material on bevel is not visible.

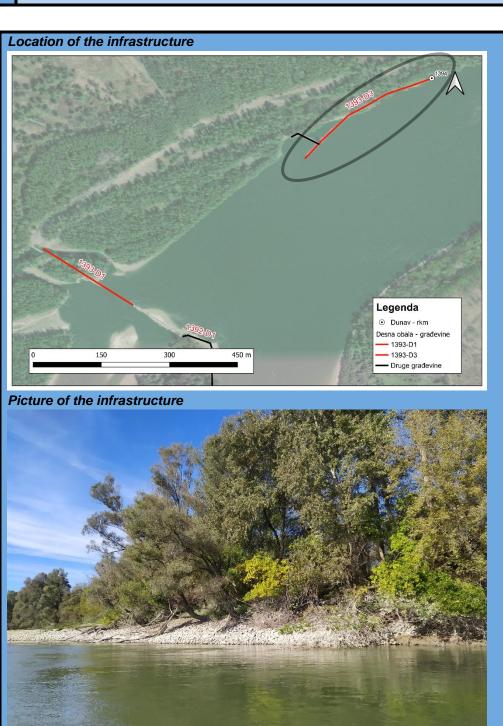


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 48. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1393-D3
 Parallel structure
 1394+006 do 1393+640
 389,24
 80,38

- CADASTRE MARK 1393/3
- CADASTRE PAGE 2/9





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 48. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1393-D3
 Parallel structure
 1394+006 do 1389,24
 80,38



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (downstream).
- Stone material of parallel structure is visible. A tree is present at junction of parallel and groyne 1393-D2.

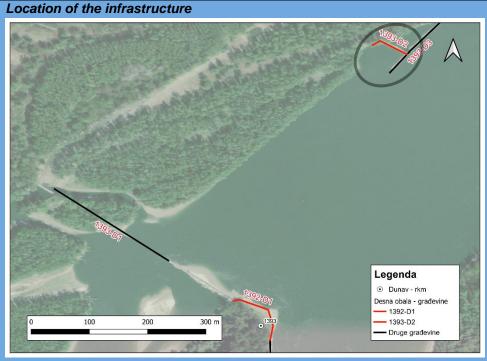


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 49. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1393-D2
 Groyne
 1393+691
 72,97
 80,09

- CADASTRE MARK 1393/2
- CADASTRE PAGE 2/9



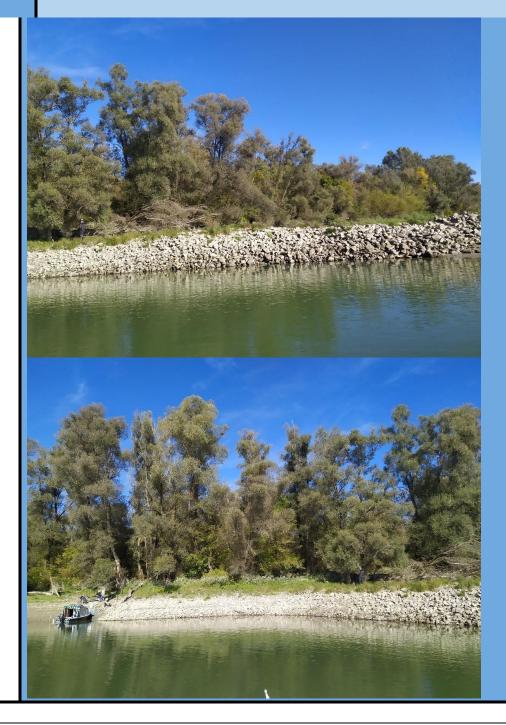




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 49. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1393-D2
 Groyne
 1393+691
 72,97
 80,09



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Downstream on the groyne, stone washout under the groyne crown is visible. Tree at the junction of the parallel 1393-D3 and the groyne is visible.

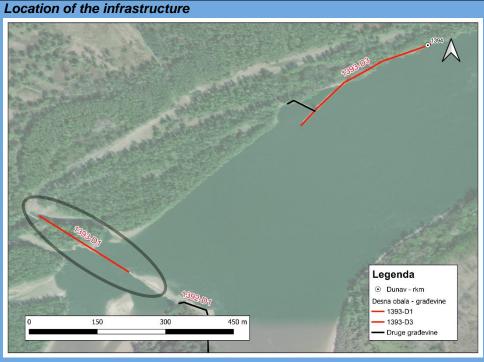


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 50. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1393-D1
 Barrier
 1393+117
 262,05
 79,20

- CADASTRE MARK 1393/1
- CADASTRE PAGE 2/9







Project numb	er: I-2206/24
Main designe	r: Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1393-D1
 Barrier
 1393+117
 262,05
 79,20



- Infrastructure is in bad condition.
- Barrier on backwater flow failed at low water level.
- Stone material of barrier is visible on both river banks. Barrier has irregular geometry. In the middle of the flow, the barrier is opened.

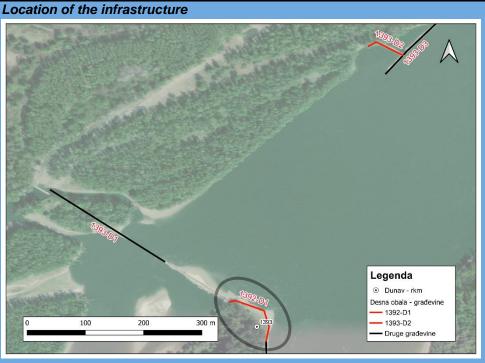


STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

	51. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
					(m.a.s.l.)
	1302-D1	Revetment	1393+056 do	141,42	82,25
1332-01		1392+961			
	1392-D1	Revetment		141,42	82,25

- CADASTRE MARK 1392/4
- CADASTRE PAGE 2/9







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1392-D1
 Revetment
 1393+056 do 141,42 82,25 1392+961



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Revetment is collapsed and the geotextile beneath the stone material is visible.

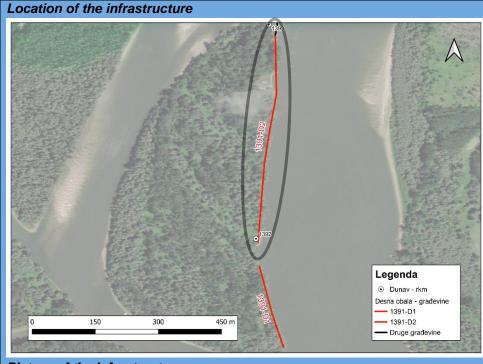


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 52. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1391-D2
 Revetment
 1392+961 do 1391+991
 704,65
 83,23

- CADASTRE MARK 1392/3
- CADASTRE PAGE 2/9







Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1391-D2
 Revetment
 1392+961 do 1391+991
 704,65
 83,23



- Infrastructure is in good condition.
- River bank erosion protection ongoing at medium water levels.
- Stone revetment. Above is a stone river bank overgrown with plants and trees. A rupture of revetment has been spotted in length around 20 meters.

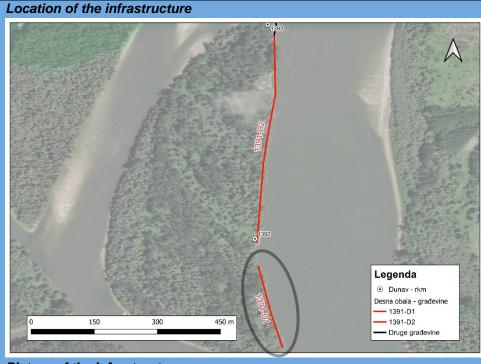


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 73. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1391-D1
 Parallel structure
 1391+927 do 1391+716
 278,02
 81,96

- CADASTRE MARK 1392/2
- CADASTRE PAGE 2/9







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1391-D1
 Parallel structure
 1391+927 do 1391+716
 278,02
 81,96



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Stone material of parallel structure on the bevel of the river bank is visible. Material deposition is spotted upstream and downstream of the parallel structure.



Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 54. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1387-D1
 Barrier
 1387+827
 26,06
 80,00

Existing documentation

- CADASTRE MARK 1387/1
- CADASTRE PAGE 2/10



- Infrastructure is in good condition.
- Barrier on backwater flow finished at low water level.
- Barrier is covered with dirt and vegetation. Stone material of barrier is not visible.

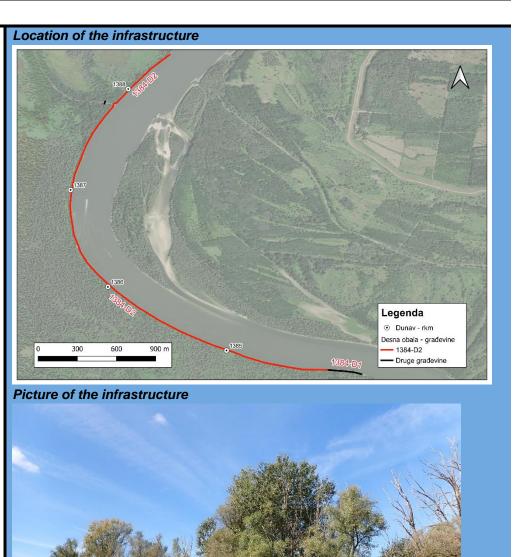


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 755. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1384-D2
 Revetment
 1388+387 do 1384+468
 4749,82
 80,15

- CADASTRE MARK 1386/1
- CADASTRE PAGE 2/10





STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

55. Right bank

Type:

Chainage (r.km)

Length (m)

Crown elevation (m.a.s.l.)

1384-D2

Revetment 1388+387 do 1384+468

4749,82

80,15



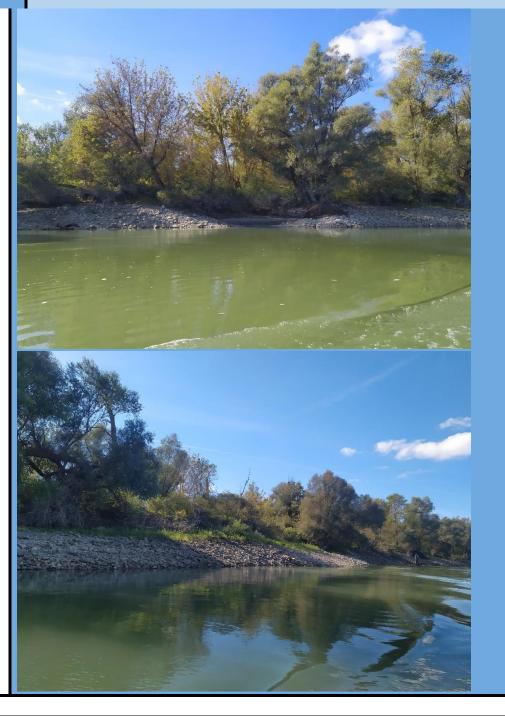




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1384-D2
 Revetment
 1388+387 do 1384+468
 4749,82
 80,15



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Revetment starts at 300 meters upstream from the barrier 1387-D1. It continues after the barrier 1387-D1. Stone material of revetment is visible. Above the stone material vegetation is present. Landslide of revetment has been spotted at two locations.

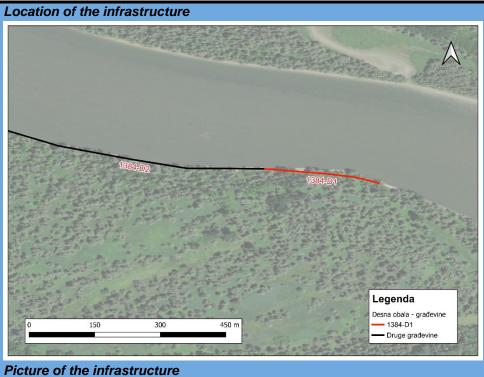


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1384-D1
 Revetment
 1384+468 do 1384+283
 270,14
 80,41

- CADASTRE MARK 1384/1
- CADASTRE PAGE2/102/11







Project number:	: I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1384-D1
 Revetment
 1384+468 do 1384+283
 270,14
 80,41



- Infrastructure is in excellent condition.
- River bank erosion protection ongoing at low water levels.
- Stone material of revetment is visible. Above is a stone river bank overgrown with vegetation and trees.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 57. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1382-D2
 Groyne
 1382+557
 37,06
 80,03

- CADASTRE MARK 1382/2
- CADASTRE PAGE 2/1







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 57. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1382-D2
 Groyne
 1382+557
 37,06
 80,03



- Infrastructure is in satisfying condition..
- Effect of material deposition ongoing.
- Material deposit upstream and downstream of the groyne and stone material of groyne are visible.

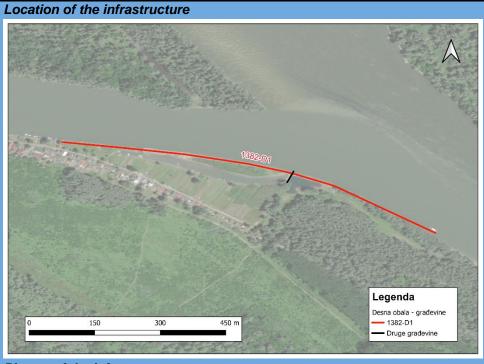


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1382-D1
 Parallel structure
 1382+893 do 1382+209
 919,15
 80,04

- CADASTRE MARK 1382/1
- CADASTRE PAGE 2/1







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1382-D1
 Parallel structure
 1382+893 do 1382+209
 919,15
 80,04



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Near the settlement of Aljmaš, stone material of parallel structure is visible. Material deposition is
 present in the back of the parallel structure. Material deposition and vegetation overgrowth is
 present on the river bank.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1381-D1
 T-groyne
 1381+381
 85,31
 79,62

- CADASTRE MARK 1381/1
- CADASTRE PAGE 2/1







Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1381-D1
 T-groyne
 1381+381
 85,31
 79,62



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. Sand deposit upstream and downstream of the groyne.



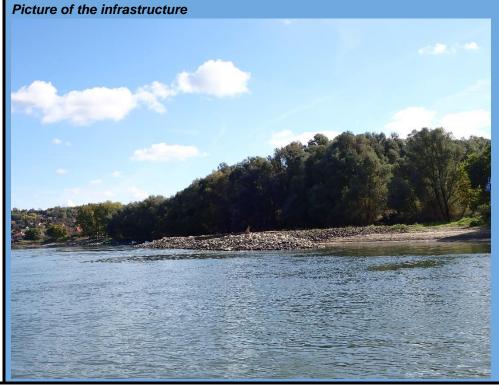
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 60. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1380-D2
 T-groyne
 1380+908
 81,56
 79,32

- CADASTRE MARK 1380/2
- CADASTRE PAGE 2/1







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 60. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1380-D2
 T-groyne
 1380+908
 81,56
 79,32



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. The beginning of material deposition upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown is visible.



Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

levation
)

- CADASTRE MARK 1380/1
- CADASTRE PAGE 2/1







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1379-D1
 Revetment
 1380+357 do 1379+983
 361,37 80,68



- Infrastructure is in good condition.
- River bank erosion protection ongoing at medium water levels.
- Stone revetment upstream and downstream of passenger wharf Aljmaš is present. Near the
 mentioned wharf there is a city-type revetment. Concrete stairs along the bevel of the revetment
 are present.



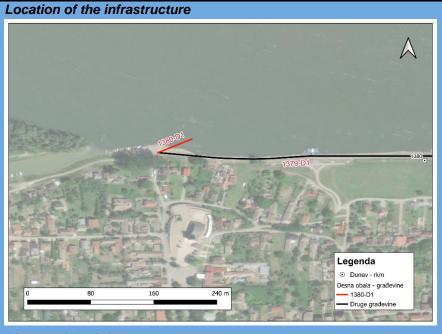
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 62. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1380-D1
 Groyne
 1380+357
 49,94
 78,03

Existing documentation

- CADASTRE MARK 1380/3
- CADASTRE PAGE 2/1



Picture of the infrastructure



- Infrastructure is in bad condition..
- Effect of material deposition failed.
- Stone material of groyne is visible at low water levels upstream of the revetment 1379-D1.

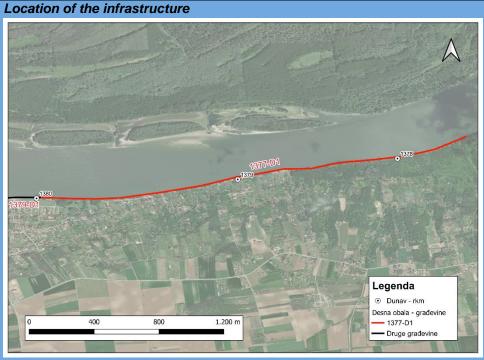


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 799:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1377-D1
 Revetment
 1379+983 do 1377+528
 2705,45
 80,60

- CADASTRE MARK
 1379/1
 1378/1
 1377/1
- CADASTRE PAGE 2/2







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 70
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1377-D1
 Revetment
 1379+983 do 1377+528
 2705,45
 80,60



- Infrastructure is in bad/ satisfying condition.
- River bank erosion protection ongoing at medium water levels.
- Stone material of revetment on the bevel is visible. It protects the river bank of the Aljmaš settlement.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 64. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1368-D1
 Groyne
 1368+237
 138,31
 78,06

- CADASTRE MARK 1368/1
- CADASTRE PAGE 2/4







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
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 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1368-D1
 Groyne
 1368+237
 138,31
 78,06



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne and the beginning of material deposition upstream and downstream of the groyne are visible.



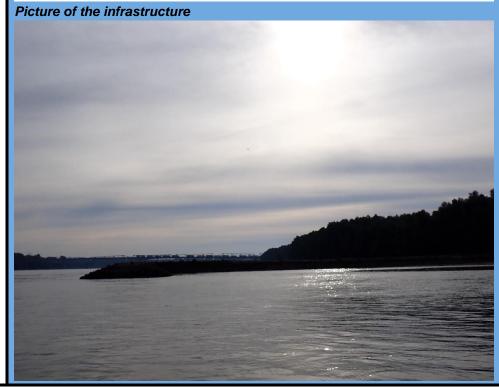
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 65. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1367-D2
 T-groyne
 1367+663
 83,84
 78,68

- CADASTRE MARK 1367/2
- CADASTRE PAGE 2/4







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1367-D2
 T-groyne
 1367+663
 83,84
 78,68



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. Material deposition upstream and downstream of the groyne is visible. Upstream on the groyne connection, stone washout under the groyne crown connection is visible.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 66. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1367-D1
 T-groyne
 1367+218
 90,26
 78,40

- CADASTRE MARK 1367/1
- CADASTRE PAGE 2/4







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1367-D1
 T-groyne
 1367+218
 90,26
 78,40



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Collapsed part of the groyne head and material deposit upstream and downstream of the groyne
 are visible. Downstream and upstream on the groyne connection, stone washout under the groyne
 crown connection is visible.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
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 67. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1366-D1
 Groyne
 1366+496
 72,26
 77,05

Existing documentation

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE
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Picture of the infrastructure

- Infrastructure is in bad condition.
- Effect of material deposition failed.
- Stone material of groyne connection is visible. Sand deposit upstream of the groyne. Between the road and railway bridge near the settlement of Erdut.

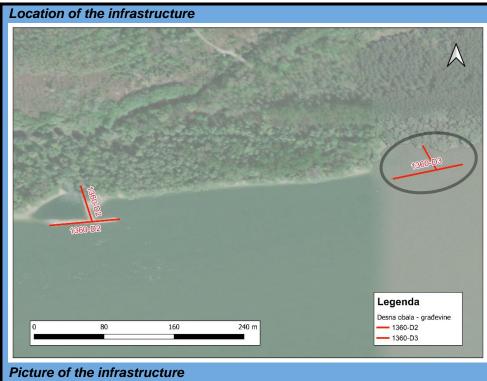


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-D3
 T-groyne
 1360+958
 81,71
 78,59

- CADASTRE MARK 1361/1
- CADASTRE PAGE 2/5







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-D3
 T-groyne
 1360+958
 81,71
 78,59



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. The beginning of material deposition on the river bank downstream of the groyne, upstream still in the function of material deposition.

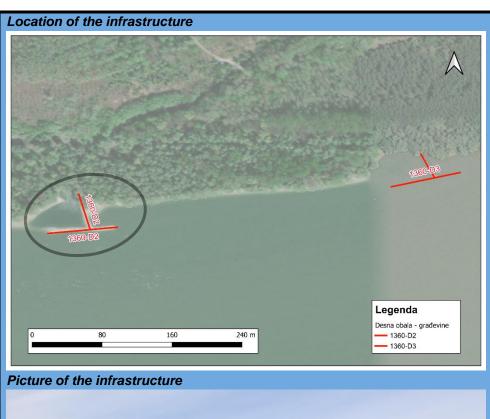


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 69. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-D2
 T-groyne
 1360+539
 79,89
 78,53

- CADASTRE MARK 1360/2
- CADASTRE PAGE 2/5







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 69. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-D2
 T-groyne
 1360+539
 79,89
 78,53



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne head and groyne connection are visible. The beginning of material deposition on the river bank upstream of the groyne, downstream deposed with sand.

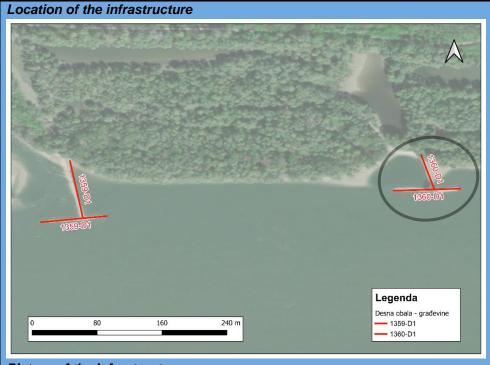


Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 70. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-D1
 T-groyne
 1360+130
 81,88
 79,18

- CADASTRE MARK 1360/1
- CADASTRE PAGE 2/5







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

 70. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-D1
 T-groyne
 1360+130
 81,88
 79,18



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible. Tree at the junction of the groyne head and groyne connection is visible.

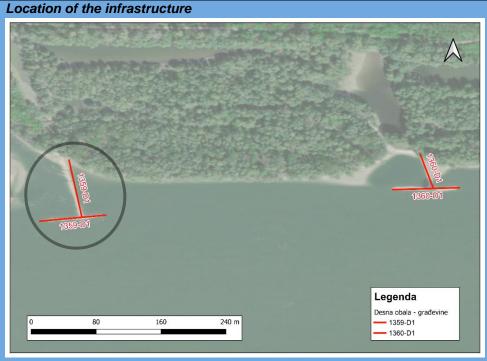


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 71. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1359-D1
 T-groyne
 1359+714
 81,62
 78,56

- CADASTRE MARK 1359/2
- CADASTRE PAGE 2/5







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 71. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1359-D1
 T-groyne
 1359+714
 81,62
 78,56



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

72. Right bank	Туре:	Chainage (r.km)	Length (m)	Toe elevation (m.a.s.l.)
1351-D1	Revetment	1355+788 do 1351+922	3329,39	76,55 [^]

- CADASTRE MARK 1353/1
- CADASTRE PAGE 2/6 2/7







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

72. Right bank Chainage (r.km) Toe elevation Туре: Length (m) (m.a.s.l.) 1355+788 do 3329,39 76,55 1351-D1 Revetment 1351+922





Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 72. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Toe elevation (m.a.s.l.)

 1351-D1
 Revetment
 1355+788 do 1351+922
 3329,39
 76,55



- Infrastructure is in satisfying condition.
- River bank erosion protection ongoing at high water levels in settlement Dalj. Upstream from the settlement river bank erosion protection ongoing at low water levels.
- Revetment near the settlement of Dalj has steep bevel and irregular geometry, it is overgrown with vegetation and is city-type revetment. Downstream of the Dalj canal there is a stone revetment. Stone material is visible at low water levels and vegetation above it is visible. Last 500 m river bank erosion behind revetment present.



Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
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73. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1349+617 do 2202,23 76,56 1347+712

- CADASTRE MARK 1348/1
- CADASTRE PAGE 2/8





Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

73. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1349+617 do 2202,23 76,56
1347+712



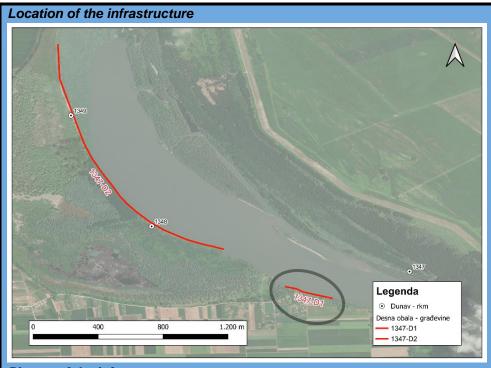
- Infrastructure is in satisfying condition.
- River bank erosion protection ongoing at low water levels.
- Start of revetment is 800 meters upstream from the rkm 1349. Stone material of revetment is visible. Above is a stone river bank overgrown with plants and trees.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

74. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1347-D1	Revetment	1347+405 do	301,37	76,25
1371-01		1347+214		

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INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 74. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1347-D1
 Revetment
 1347+405 do 1347+214
 301,37
 76,25



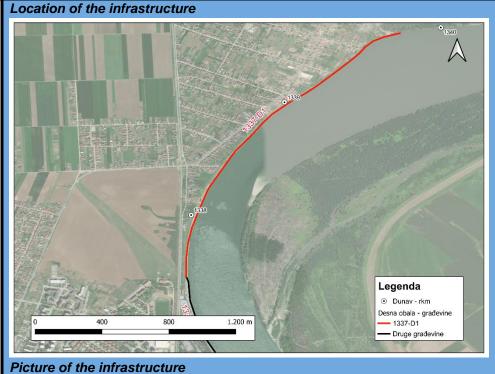
- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone material of revetment is visible. It protects the bevel of the river bank at low water levels.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

75. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1337-D1	Revetment	1340+795 do	2545,59	76,05
1337-01		1337+499		78,97

- CADASTRE MARK 1338/1
- CADASTRE PAGE 2/10





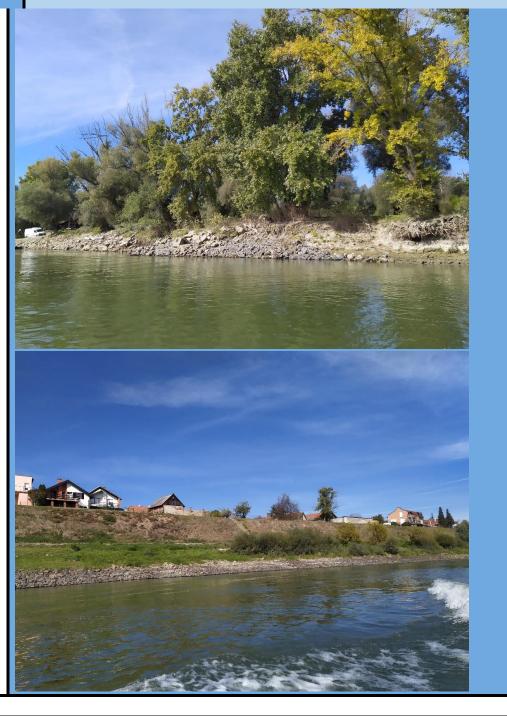


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

75. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1340+795 do 2545,59 76,05 78,97



- Infrastructure is in good condition.
- River bank protection from erosion ongoing at low and high water levels.
- Stone revetment. It protects the river bank at low water levels. Downstream of the rkm 1338, city-type revetment protects the river bank from high water levels.



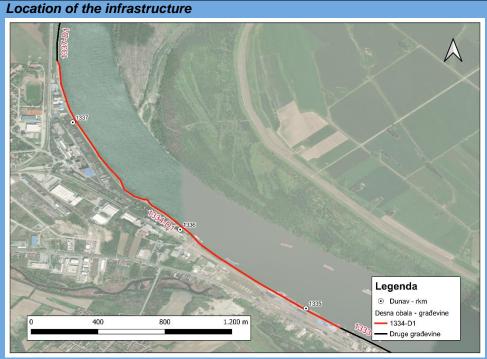
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

76. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1337+499 do 1334+739

- CADASTRE MARK 1336/1
- CADASTRE PAGE 2/10







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

76. Right bank Chainage (r.km) Crown elevation Туре: Length (m) (m.a.s.l.) Revetment 2937,32 84,60 1334-D1 1337+499 do 1334+739





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

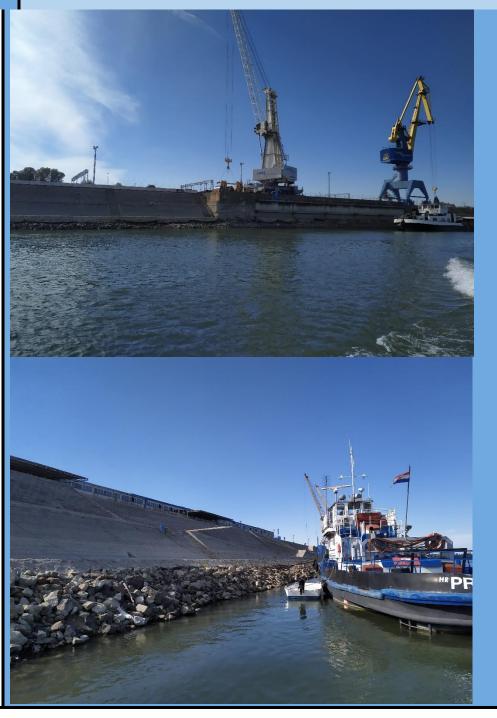
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

76. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1337+499 do 2937,32 84,60 1334+739



- Infrastructure is in good condition.
- River bank erosion protection ongoing at high water levels.
- City-type revetment of Borovo settlement. Concrete staircase on bevels. The vertical river bank on the columns of the operational plateau of the transshipment port of Vupik. The revetment of the port of Vukovar.



Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
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77. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
1333-D1	Revetment	1334+739 do 1333+113	998,31	(m.a.s.l.) 83,40

- CADASTRE MARK 1333/1
- CADASTRE PAGE 2/11







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

77. Right bank Chainage (r.km) Crown elevation Туре: Length (m) (m.a.s.l.) 1334+739 do 998,31 83,40 1333-D1 Revetment 1333+113





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INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

77. Right bank Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

1333-D1 Revetment 1334+739 do 998,31 83,40





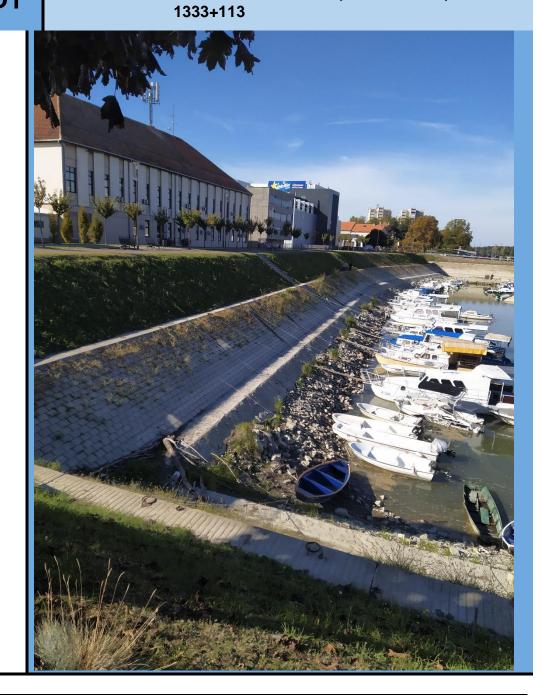
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

77. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

1333-D1

Revetment 1334+739 do 998,31 83,40



- Infrastructure is in excellent condition.
- River bank erosion protection ongoing at high water levels.
- City-type revetment. It extends from the revetment 1334-D1 to the confluence of Vuka river and includes the revetment "Otok Športova".

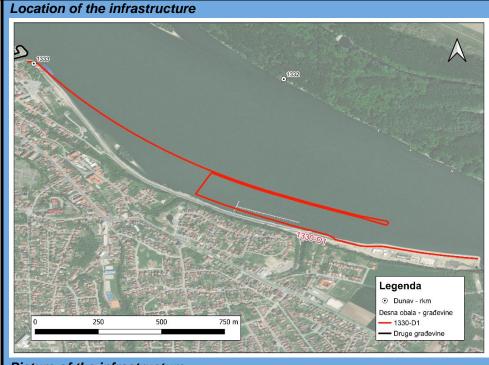


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 78. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1330-D1
 Revetment
 1333+025 do 1330+932
 3817,44
 84,10

- CADASTRE MARK 1331/1
- CADASTRE PAGE 2/11







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 78. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1330-D1
 Revetment
 1333+025 do 1330+932
 3817,44
 84,10



- Infrastructure is in excellent condition.
- River bank erosion protection ongoing at high water levels. The revetment of passenger wharf of Vukovar. It is under construction in the area of the city of Vukovar, from rkm 1333 (confluence of Vuka river) to rkm 1331 (waste water treatment device).



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

79. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1328+550 do 180,05 79,90
1328+415

- CADASTRE MARK 1327/1
- CADASTRE PAGE2/12





Project numb	er: I-2206/24
Main designe	r: Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
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79. Right bank

1328-D1

Туре:

Chainage (r.km)

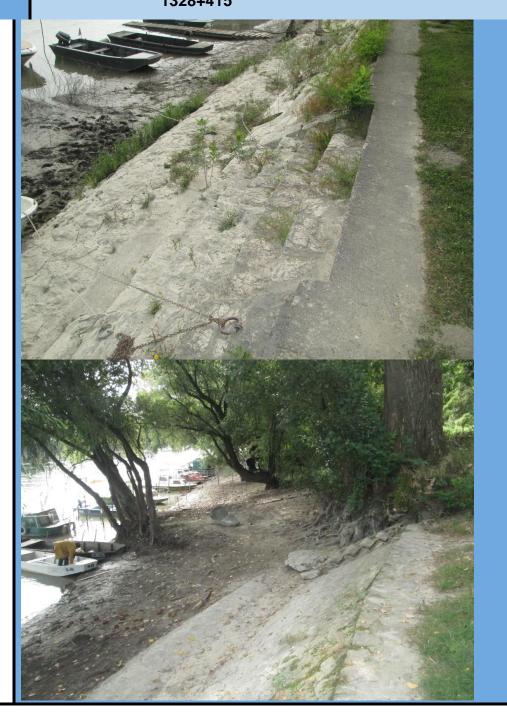
Length (m)

Crown elevation (m.a.s.l.)

Revetment

1328+550 do 1328+415 180,05

79,90



- Infrastructure is in good condition.
- River bank erosion protection ongoing at medium water levels.
- City-type revetment to crown elevation of 80.15 m.a.s.l. The revetment of passenger wharf of Vučedol.



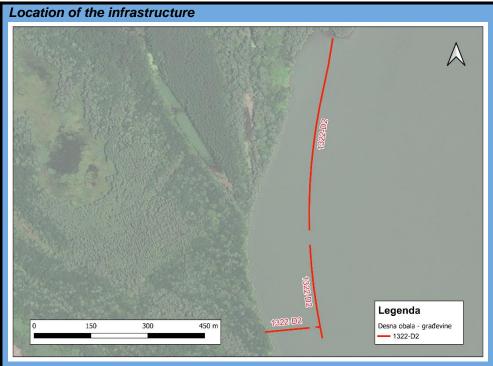
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

80. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Parallel 1323+927 do 1061,26 76,08 structure 1322+971

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Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

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INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

1322-D2

80. Right bank

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 Parallel
 1323+927 do
 1061,26
 76,08

 structure
 1322+971



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Newly built. Stone material of parallel structure and groyne are visible.

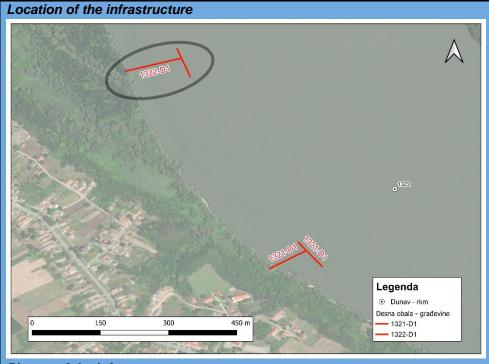


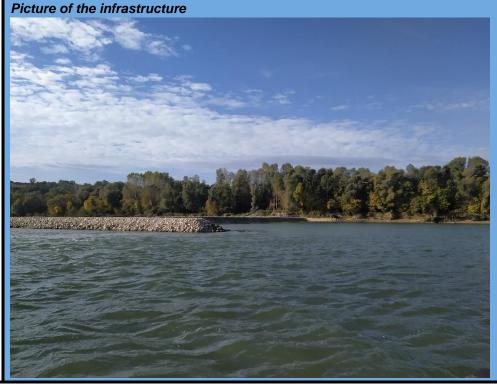
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 81. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1322-D1
 T-groyne
 1322+450
 90,04
 77,01

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INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 81. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1322-D1
 T-groyne
 1322+450
 90,04
 77,01



- Infrastructure is in excellent condition..
- Effect of material deposition ongoing (upstream, downstream).
- Newly built. Stone material of groyne connection and groyne head is visible.

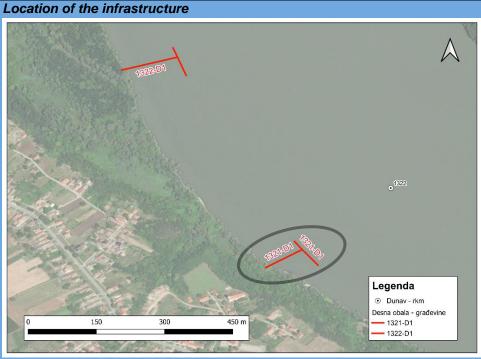


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1321-D1
 T-groyne
 1321+960
 89,98
 76,99

- CADASTRE MARKIt is not visible in "Cadastre"
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Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

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INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 82. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1321-D1
 T-groyne
 1321+960
 89,98
 76,99



- Infrastructure is in excellent condition..
- Effect of material deposition ongoing (upstream, downstream).
- Newly built. Stone material of groyne connection and groyne head is visible.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

83. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1318-D1	Revetment	1318+669 do 1318+577	118,34	75,35

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Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
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83. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1318+669 do 118,34 75,35 1318+577



- Infrastructure is in bad condition..
- River bank erosion protection failed.
- Stone material of the revetment is visible at low water levels.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

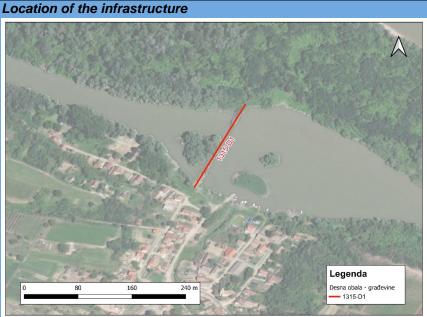
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 84. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1315-D1
 Barrier
 1315+740
 188,56
 77,50

Existing documentation

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"



Picture of the infrastructure

- Infrastructure is in good condition..
- Barrier on backwater flow finished at low water level.
- Barrier is not visible from the river side.



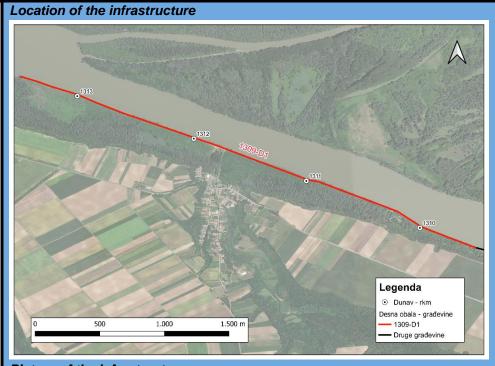
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

85. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1313+676 do 3993,84 74,95
1309+502

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

85. Right bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1313+676 do 3993,84 74,95
1309+502



- Infrastructure is in satisfying condition..
- River bank erosion protection ongoing at low water levels.
- Stone material of the revetment is visible at low water levels. Collapsed vegetation on the bevel.

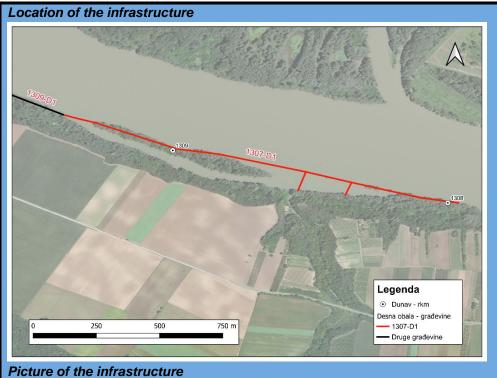


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1307-D1
 Parallel structure
 1309+502 do 1307+954
 1646,34
 76,34

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"



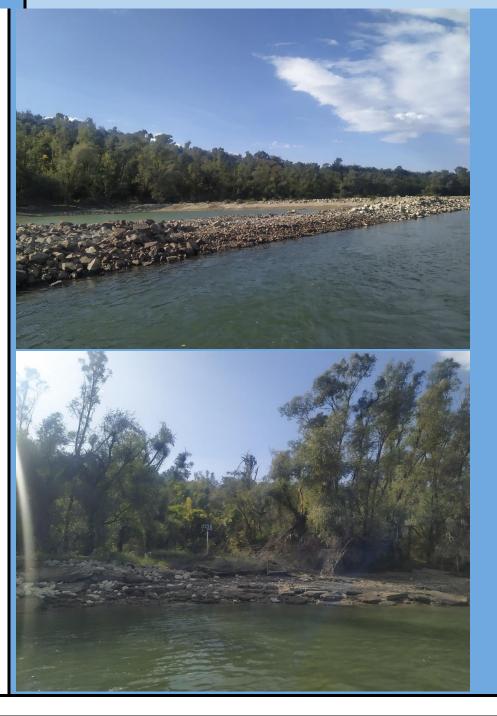




Project numbe	er: I-2206/24
Main designer	: Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1307-D1
 Parallel structure
 1309+502 do 1307+954
 1646,34
 76,34



- Infrastructure is in good condition..
- Effect of material deposition ongoing (upstream, downstream).
- Parallel structure continues on a revetment 1309-D1. Stone material of the parallel and two
 groynes vertical to it are visible. Material deposition on the river bank is spotted in the back of the
 parallel structure.

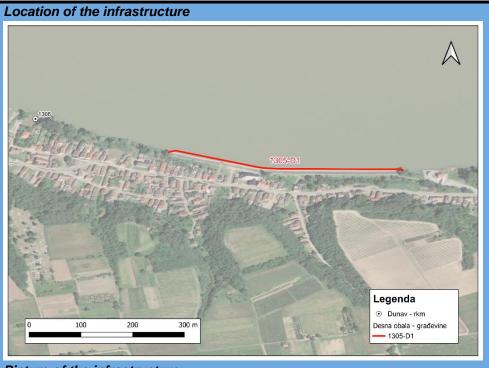


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 87. Right bank
 Type:
 Chainage (r.km)
 Length (m)
 Toe elevation (m.a.s.l.)

 1305-D1
 Revetment
 1305+896 do 1305+386
 461,21
 76,74

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

87. Right bank

Type: Chainage (r.km) Length (m) Toe elevation (m.a.s.l.)

Revetment 1305+896 do 461,21 76,74
1305+386



- Infrastructure is in excellent condition..
- River bank erosion protection ongoing at high water levels.
- City-type revetment of Šarengrad settlement.

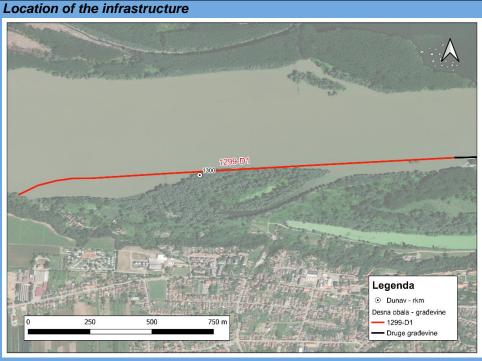


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1299-D1
 Parallel structure
 1300+668 do 1790,95 at 1299+105
 73,77

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1299-D1
 Parallel structure
 1300+668 do 1790,95 (m.a.s.l.)
 73,77



- Infrastructure is in satisfying condition..
- Effect of material deposition ongoing (downstream).
- Stone material of parallel structure is visible. Material deposition on the river bank is spotted in the back of the parallel structure. Parts of the stone material are collapsed and have irregular geometry.



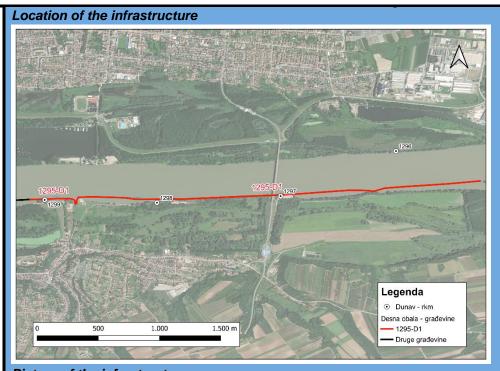
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

89. Right bank	Type:	Chainage (r.km)	Length (m)	Crown and toe
				elevation
				(m.a.s.l.)
1295-D1	Revetment	1299+105 do	3789,17	80,07 crown
1293-01		1295+350		73,93 toe

- CADASTRE MARK 1296/1
- CADASTRE PAGE 2/18







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

89. Right bank	Туре:	Chainage (r.km)	Length (m)	Crown and toe
				elevation
				(m.a.s.l.)
1295-D1	Revetment	1299+105 do	3789,17	80,07 crown
		1295+350		73,93 toe



- Infrastructure is in excellent/good condition..
- River bank protection from erosion ongoing at low and high water levels. Effect of material deposition ongoing (downstream).
- City-type revetment at the wharf of llok protects the river bank from the high waters. Downstream
 of the wharf, stone revetment and parallel structure are in function of river bank protection from the
 erosion during low water levels. Downstream of the bridge, vertical river bank is under
 construction.



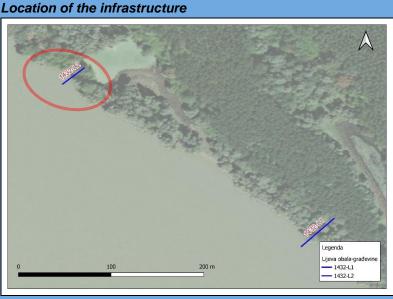
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

3.2 RIVER REGULATION INFRASTRUCTURE - LEFT BANK

1. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation (m.a.s.l.)
1432-L2	Groyne	1432+748	33,58	79,81

Existing documentation

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"



Picture of the infrastructure

- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream, downstream).
- Groyne material and effect of material deposition upstream and downstream visible.

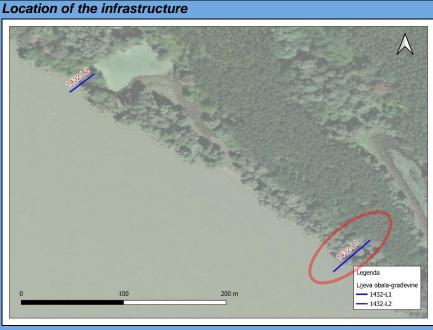


Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

2. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation (m.a.s.l.)
1432-L1	Groyne	1432+529	55,33 m	79,70

Existing documentation

- CADASTRE MARK 1432/12
- CADASTRE PAGE 2/1



Picture of the infrastructure



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne material and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure.

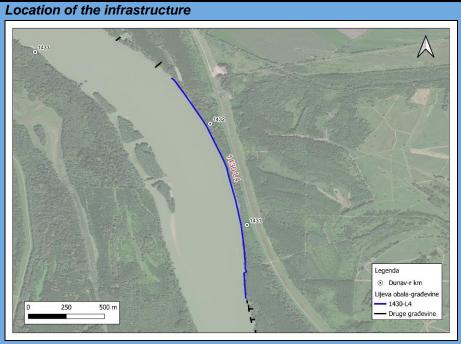


Project number	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

3. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation (m.a.s.l.)
1430-L4	Revetment	1432+360 do 1430+378	2152,14 m	82,76

Existing documentation

- CADASTRE MARK 1430/12
- CADASTRE PAGE 2/1



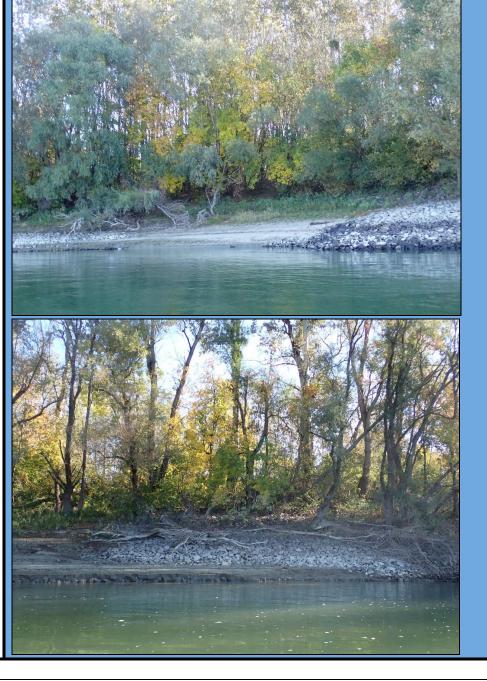




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 3. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1430-L4
 Revetment
 1432+360 do 1430+378
 2152,14 m
 82,76



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment. Revetment material visible. Above crown revetment vegetation and trees present. Approx 30 m of revetment material not visible.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
0711011	

4. Left bank	Type:	Chainage (r.km)	Length (m)	Crown elevation (m.a.s.l.)
1430-L3	Revetment	1430+349 do 1430+335	15,37	82,25

Location of the infrastructure Existing documentation CADASTRE MARK 1430/11 CADASTRE PAGE 2/1 Legenda Lijeva obala - građevine 1430-L2 ■ 1430-L3 ■ Druge građevine Picture of the infrastructure

- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- River bank ingrown with revetment. Effect of material deposition visible (upstream and downstream).



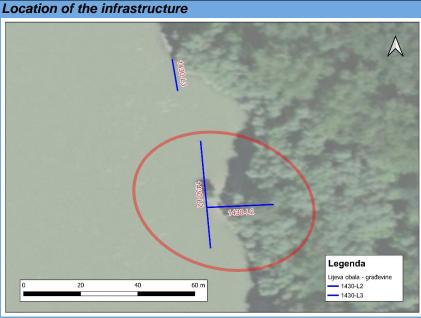
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1430-L2
 T-groyne
 1430+280
 53,36
 53,36

Existing documentation

- CADASTRE MARK 1430/00
- CADASTRE PAGE 2/1



Picture of the infrastructure

- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material on the groyne head and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

STUDY

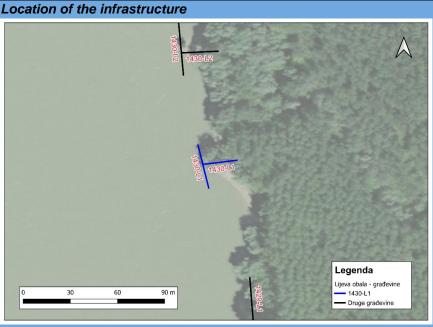
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1430-L1
 T-groyne
 1430+186
 39,53
 83,00

Existing documentation

- CADASTRE MARK 1429/12
- CADASTRE PAGE 2/1



Picture of the infrastructure



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material on the groyne head and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

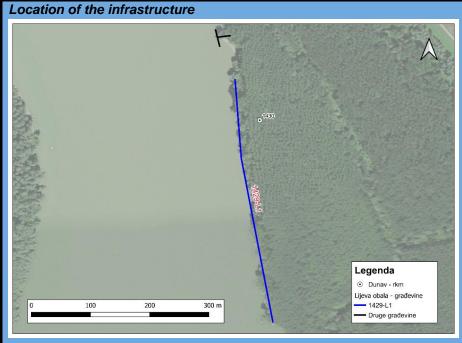
STUDY

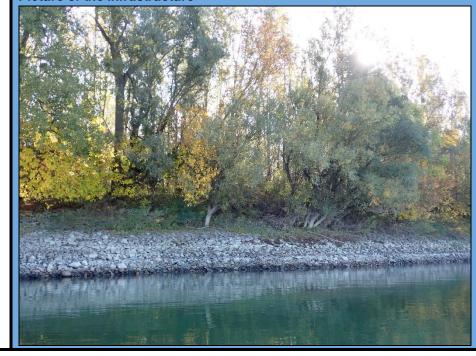
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

7. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1429-L1	Revetment	1430+090 do	539,78	82,03
1423-L1		1429+516		

Existing documentation

- CADASTRE MARK 1429/11
- CADASTRE PAGE 2/2







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

7. Left bank Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

1429-L1 Revetment 1430+090 do 1429+516 539,78 82,03



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment. Revetment material visible. Above crown revetment vegetation and trees
 present.



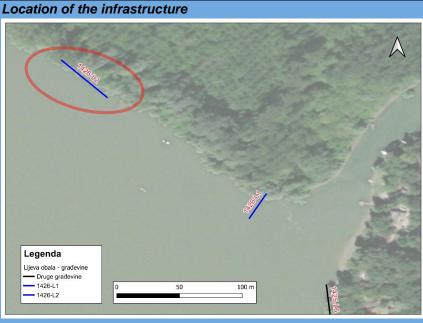
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

8. Left bank Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

1426-L2 Parallel 1426+500 do 55,62 82,03 structure 1426+449

Existing documentation

- CADASTRE MARK
 It is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"



Picture of the infrastructure



- Infrastructure is in bad condition.
- Effect of material deposition ongoing (upstream, downstream).
- Parts of parallel structure material and effect of material deposition upstream and downstream visible.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

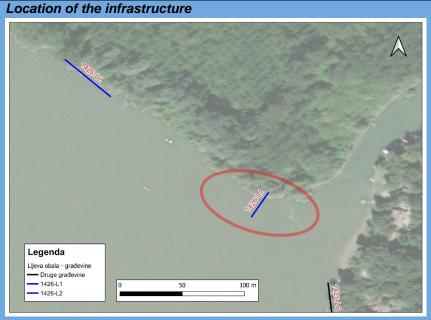
9. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Groyne 1426+282 30,47 81,36

Existing documentation

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"



Picture of the infrastructure



- Infrastructure is in bad condition.
- Effect of material deposition ongoing (upstream, downstream).
- Parts of groyne material and effect of material deposition upstream and downstream visible.

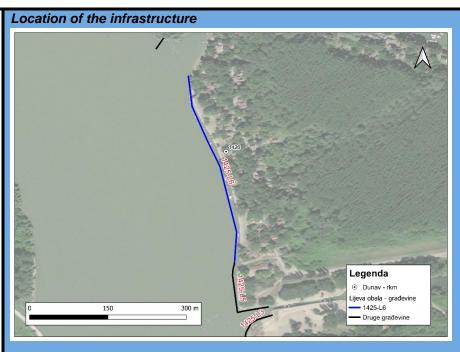


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

10. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
1425-L6	Revetment	1426+195 do 1425+712	524,55	(m.a.s.l.) 85,53

Existing documentation

- CADASTRE MARK 1426/11
- CADASTRE PAGE 2/2







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1425-L6
 Revetment
 1426+195 do 1425+712
 524,55 85,53



- Infrastructure is in good condition.
- River bank erosion protection ongoing at medium water levels.
- Slope revetment from stone and concrete stone. Concrete stairs along the slope revetment.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

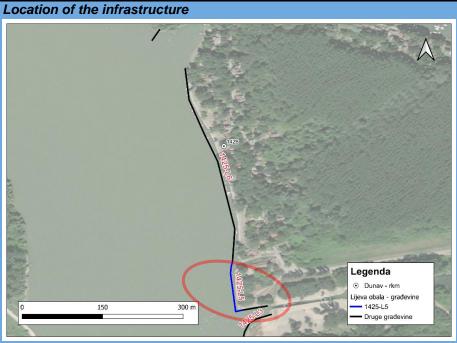
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

11. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
	D	4405 740 1	4.45.07	(m.a.s.l.)
1425-L5	Revetment	1425+712 do 1425+577	145,97	83,15
		14204011		

Existing documentation

- CADASTRE MARK 1425/15
- CADASTRE PAGE 2/2







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1425-L5
 Revetment
 1425+712 do 145,97 (1425+577)
 83,15 (1425+577)



- Infrastructure is in good condition.
- River bank erosion protection ongoing at high water levels.
- Part of slope revetment made from concrete stone, the rest of the slope is made of concrete blocks (city-type revetment). Concrete stairs along the slope revetment.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

 12. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1425-L4
 Revetment
 1425+577 do 1425+585
 48,41
 86,74

Existing documentation

- CADASTRE MARK 1425/14
- CADASTRE PAGE 2/2



Picture of the infrastructure



- Infrastructure is in excellent condition.
- River bank erosion protection ongoing at high water levels.
- A vertical revetment in the form of a reinforced concrete wall. Entrance in river lock in Bezdan settlement.

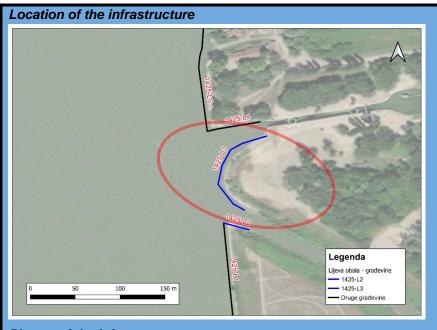


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

13. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1425-L3	Revetment	1425+562 do	154,36	81,49
1723 L3		1425+443		

Existing documentation

- CADASTRE MARK 1425/13
- CADASTRE PAGE 2/2



Picture of the infrastructure



- Infrastructure is in good condition.
- River bank erosion protection ongoing at high water levels.
- Semicircular revetment. Revetment slope made of concrete blocks (city-type revetment).



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Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

14. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1425-L2	Revetment	1425+423 do	30,09	79,44
1 1 25-L2		1425+410		

Existing documentation

- CADASTRE MARK 1425/12
- CADASTRE PAGE 2/2



Picture of the infrastructure

- Infrastructure is in good condition.
- River bank erosion protection ongoing at high water levels.
- Revetment slope made of concrete blocks (city-type revetment).



Project number:I-2206/24Main designer:Igor Tadić, M.Sc.Eng.Client:Ministry of the Sea, Transport and Infrastructure

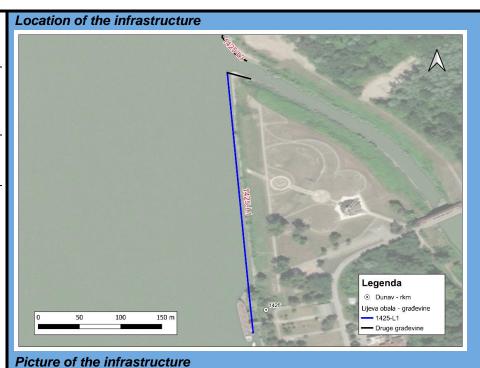
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

15. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1425-L1	Revetment	1425+423 do	451,65	81,79
1723 L 1		1424+959		

Existing documentation

- CADASTRE MARK 1425/11
- CADASTRE PAGE 2/2





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

15. Left bank

Туре:

Chainage (r.km)

Length (m)

Crown elevation

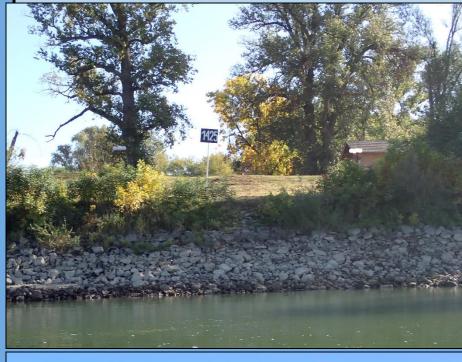
(m.a.s.l.)

1425-L1

Revetment 1425+423 do 1424+959

451,65

81,79





- Infrastructure is in satisfying condition.
- River bank erosion protection ongoing at medium water levels.
- Stone revetment. Vegetation present above the infrastructure. Continues to the revetment 1425-L2. Visible columns of the old docking place in bad condition.



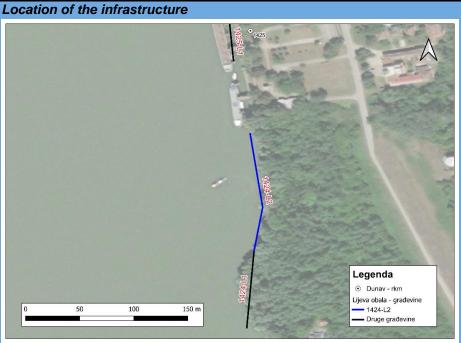
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 16. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1424-L2
 Revetment
 1424+860 do 1424+662
 155,90
 79,34

Existing documentation

- CADASTRE MARK 1424/13
- CADASTRE PAGE 2/3





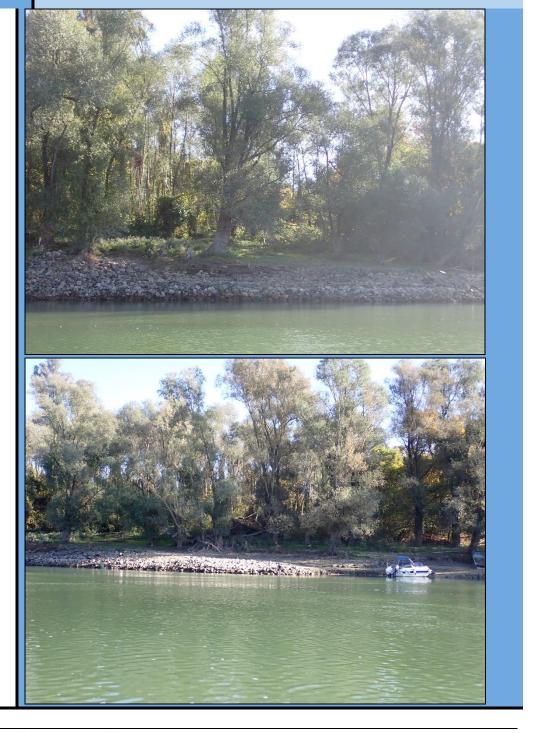


Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1424-L2
 Revetment
 1424+860 do 155,90
 79,34

 1424+662
 1424+860 do 1424+860
 1424+860
 79,34



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment. Vegetation present above the infrastructure. Visible material revetment.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 17. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1424-L1
 T-groyne
 1424+662 do 101,77 81,4

 1424+591

Existing documentation

- CADASTRE MARK 1424/12
- CADASTRE PAGE 2/3



Picture of the infrastructure



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material on the groyne head and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure. In continuity with revetment 1424-L2.



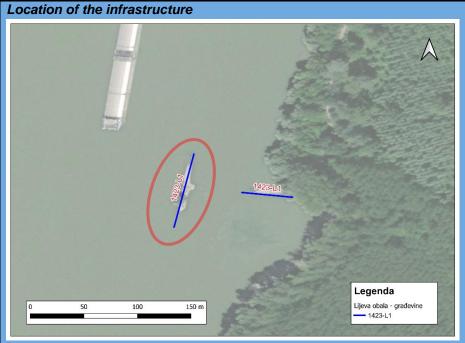
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 18. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1423-L1
 T-groyne
 1423+963
 98,82
 82,71

Existing documentation

- CADASTRE MARK 1424/11
- CADASTRE PAGE 2/3



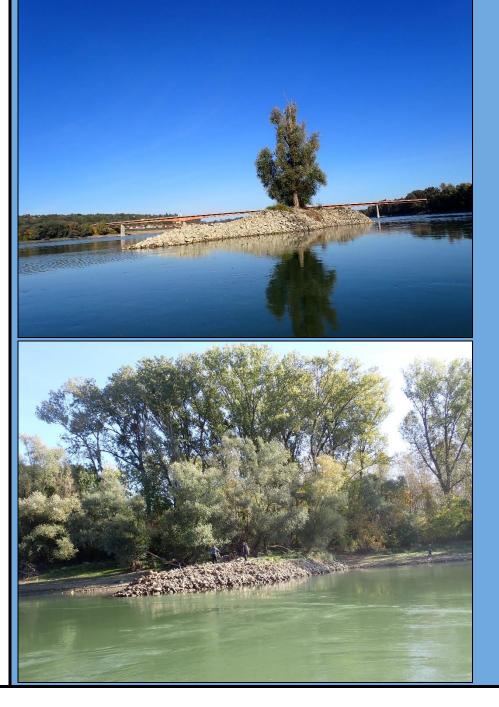




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 18. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1423-L1
 T-groyne
 1423+963
 98,82
 82,71



- Infrastructure is in bad condition.
- Effect of material deposition failed.
- Material on the groyne head and groyne root visible. Separately groyne head from root.



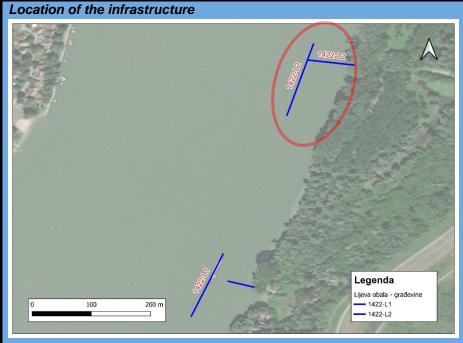
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

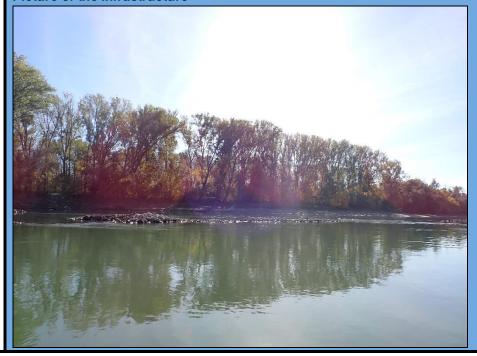
 19. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-L2
 T-groyne
 1422+894
 177,17
 79,22

Existing documentation

- CADASTRE MARK 1422/13
- CADASTRE PAGE 2/3



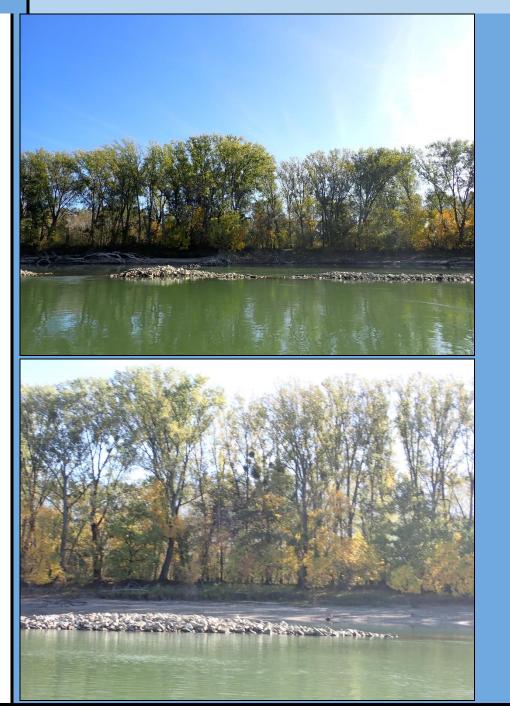




Project num	ber: I-2206/24	
Main desigr	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 19. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-L2
 T-groyne
 1422+894
 177,17
 79,22



- Infrastructure is in bad condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection material not visible.



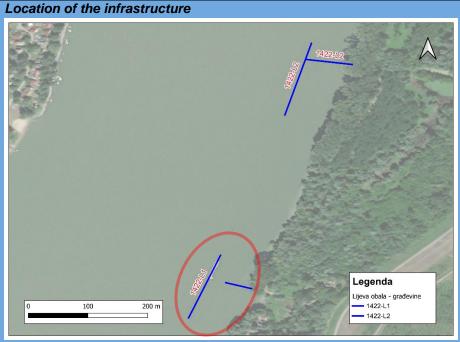
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 20. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-L1
 T-groyne
 1422+281
 158,98
 81,55

Existing documentation

- CADASTRE MARK 1422/12
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1422-L1
 T-groyne
 1422+281
 158,98
 81,55



- Infrastructure is in bad condition.
- Effect of material deposition failed.
- Groyne connection and head material visible. Irregular geometry of the groyne. Separately groyne head from connection.

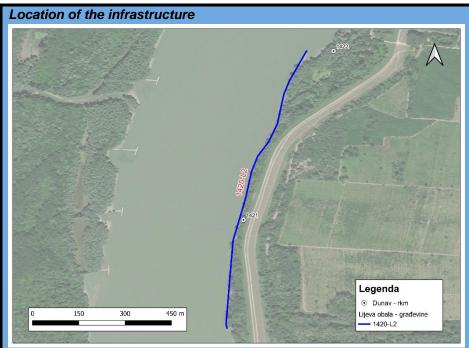


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

21. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1420-I 2	Revetment	1421+970 do	1320,08	82,83
1-TLU LL		1420+529		
1420-L2	Revetment		1320,08	•

Existing documentation

- CADASTRE MARK 1421/11
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1420-L2
 Revetment
 1421+970 do 1320,08 82,83 1420+529



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment. Vegetation present above the infrastructure. Visible material revetment. The beginning of the revetment in continuity, after 200m part of the revetment is washed away, visible material behind.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1420-L1
 T-groyne
 1420+281
 51,95
 81,48

Existing documentation

- CADASTRE MARK 1420/12
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1420-L1
 T-groyne
 1420+281
 51,95
 81,48



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1419-L2
 T-groyne
 1419+990
 53,21
 81,64

Existing documentation

- CADASTRE MARK 1420/11
- CADASTRE PAGE 2/3







Project numb	er: I-2206/24	
Main designe	r: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1419-L2
 T-groyne
 1419+990
 53,21
 81,64



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and effect of material deposition upstream and downstream visible.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

STUDY

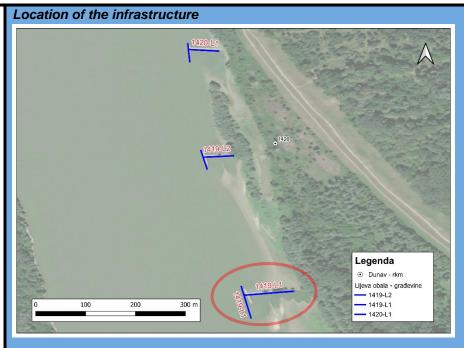
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1419-L1
 T-groyne
 1419+612
 91,96
 81,60

Existing documentation

- CADASTRE MARK 1419/11
- CADASTRE PAGE 2/4







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1419-L1
 T-groyne
 1419+612
 91,96
 81,60



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and significantly effect of material deposition upstream and downstream visible. Groyne head irregular geometry. Trees present on the groyne crown connection.



Legenda

⊙ Dunav - rkm

Lijeva obala - građevine

1414-L1

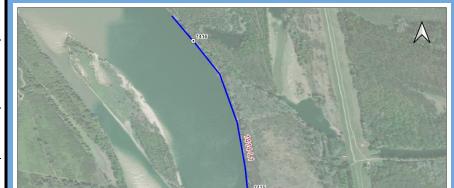
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

25. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1414-L1	Revetment	1416+109 do	1804,23	79,02
1717 61		1414+355		

Existing documentation

- CADASTRE MARK 1415/11
- CADASTRE PAGE 2/4



Picture of the infrastructure

Location of the infrastructure

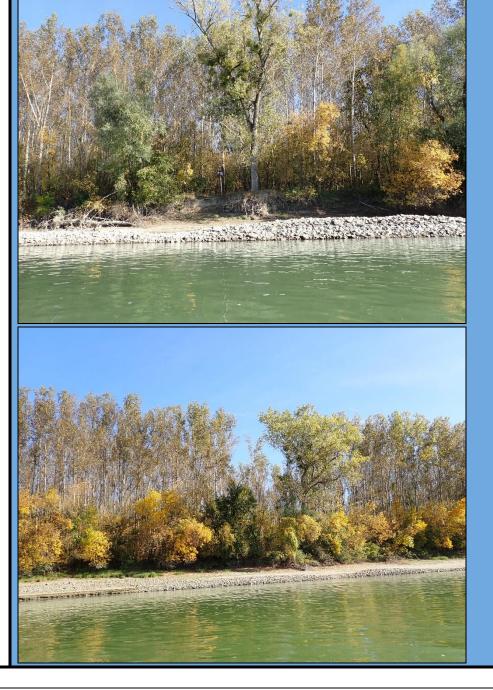




Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1414-L1
 Revetment
 1416+109 do 1804,23 79,02 1414+355



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind.



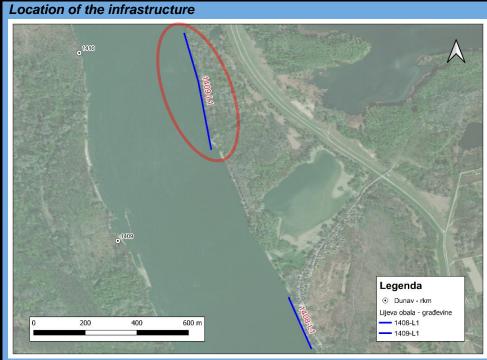
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1409-L1
 Revetment
 1410+058 do 1409+398
 647,38
 78,64

Existing documentation

- CADASTRE MARK 1410/11
- CADASTRE PAGE 2/6



Picture of the infrastructure





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
0711011	

26. Left bank Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

1409-L1 Revetment 1410+058 1409+398

1410+058 do 64

647,38 78,64



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind.



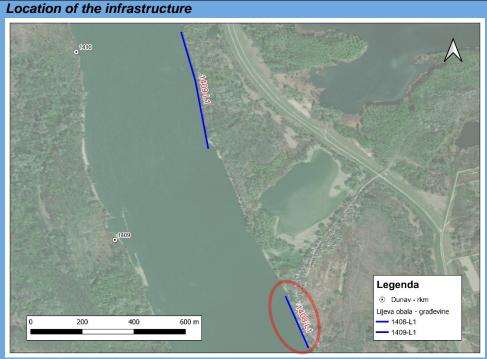
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-L1
 Revetment
 1408+502 do 1408+198
 291,88
 78,50

Existing documentation

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"



Picture of the infrastructure

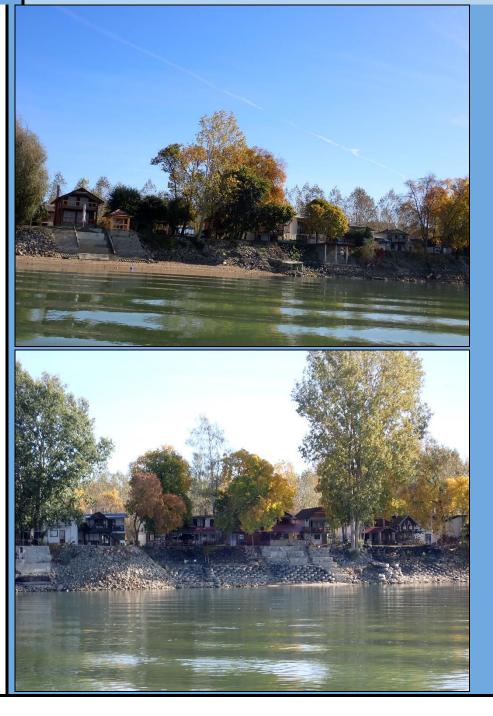




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1408-L1
 Revetment
 1408+502 do 1408+198
 291,88
 78,50



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Revetment near the Vagoni settlement. On slopes visible stone, car tires and reinforced concrete stairs, irregular geometry structure.

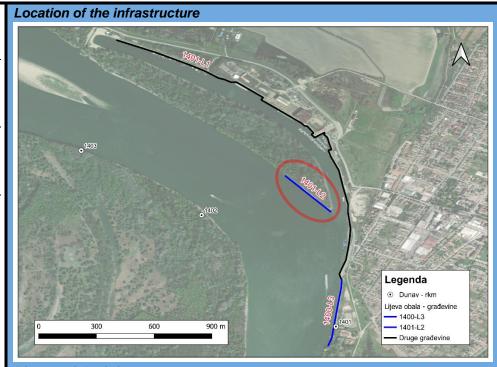


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1401-L2
 Revetment
 1401+863 do 1401+619
 351,28
 78,40

- CADASTRE MARK 1401/11
- CADASTRE PAGE 2/7



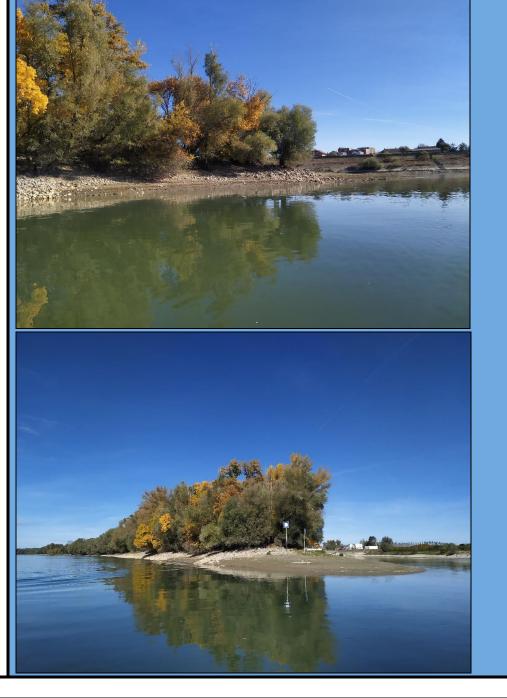




Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1401-L2
 Revetment
 1401+863 do 1401+619
 351,28
 78,40



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind from the river side. There is no visible material on the side of the backwater near the port of Apatin.

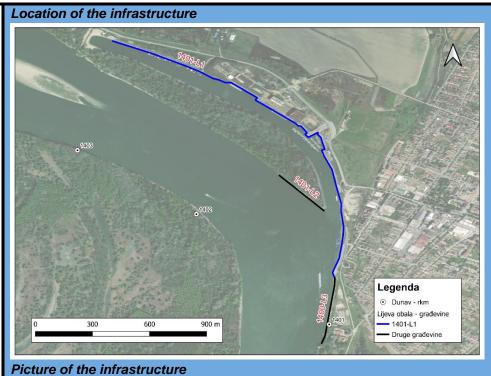


STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

29. Left bank	Туре:	Chainage (r.km)	Length (m)	Elevation toe
				(m.a.s.l.)
1401-L1	Revetment	1403+7247 do	2516,32	78,42
1 1 01-L1		1401+340		

- CADASTRE MARK 1403/11
- CADASTRE PAGE 2/7







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

29. Left bank

Type: Chainage (r.km)

Length (m)

Elevation toe (m.a.s.l.)

1401-L1

Revetment 1403+7247 do 1401+340

2516,32

78,42







78,42

STUDY INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

29. Left bank

Туре: Chainage (r.km) Length (m) Elevation toe (m.a.s.l.)

1401-L1

1403+7247 do 2516,32 Revetment 1401+340





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

Chainage (r.km) 29. Left bank Elevation toe Туре: Length (m) (m.a.s.l.)

1401-L1

1403+7247 do Revetment 1401+340

2516,32 78,42





Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

29. Left bank

Type:

Chainage (r.km)

Length (m)

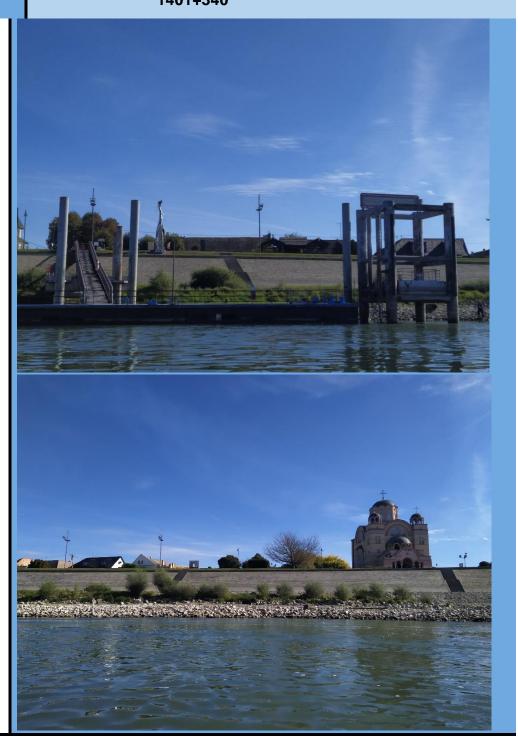
Elevation toe (m.a.s.l.)

1401-L1

Revetment 1403+7247 do 1401+340

2516,32

78,42





Project numl	ber: I-2206/24	
Main design	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 Type:
 Chainage (r.km)
 Length (m)
 Elevation toe (m.a.s.l.)

 1401-L1
 Revetment
 1403+7247 do 1401+340
 2516,32 78,42



- Infrastructure is in good condition (bad, good, excellent)
- Upstream river bank erosion protection failed. River bank erosion protection at shipyard Apatin ongoing. Downstream river bank erosion protection ongoing at high water levels.
- Upstream of the Apatin barrier, the revetment is not visible from the water side. From the barrier to
 the vertical revetment of the Apatin shipyard, there are is no revetment material present. On the
 vertical revetment of the shipyard, visible deformation of the columns. At the Apatin passenger
 docking place, a city-type revetment in excellent condition. Along the downstream part of the
 revetment stone in concrete. A new city-type revetment near the Apatin marina. Downstream from
 the Apatin marina, a city-type revetment with irregular geometry and visible deformation.



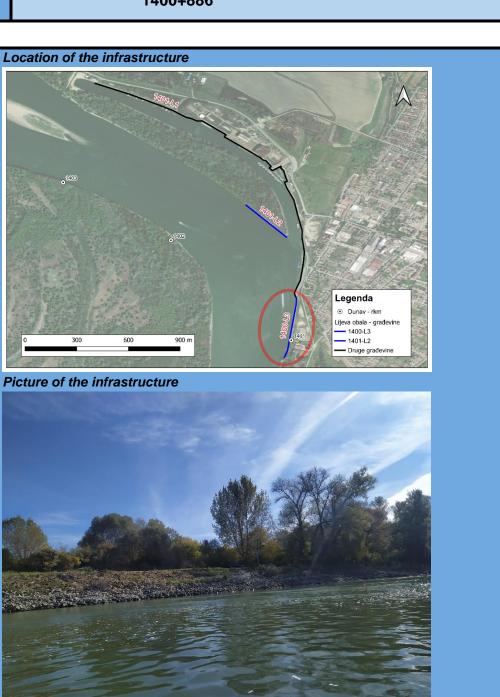
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 30. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1400-L3
 Revetment
 1401+340 do 1400+886
 490,71
 77,41

Existing documentation

- CADASTRE MARK 1400/11
- CADASTRE PAGE 2/7



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment. Vegetation present above the infrastructure. Visible material revetment.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

31. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
4 400 1 0	Povotmont	1400+456 do	274 44	(m.a.s.l.)
1400-L2	Revetment	1400+456 00	271,11	80,79

Existing documentation

- CADASTRE MARK 1400/12
- CADASTRE PAGE 2/7



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind.



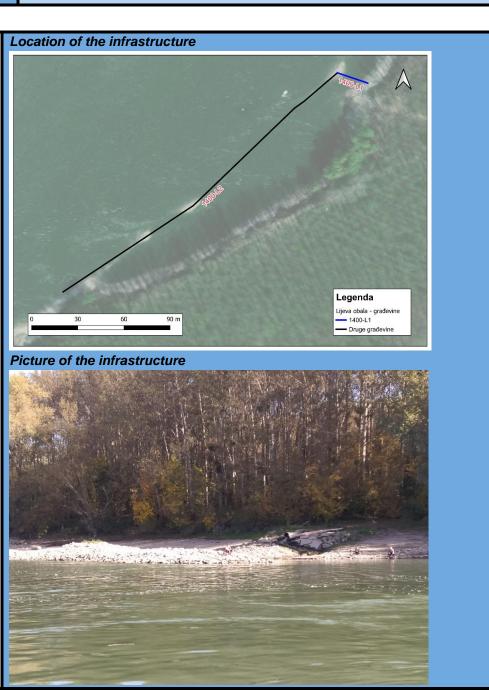
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1400-L1
 Parallel structure
 1400+456
 22,02
 80,46

Existing documentation

- CADASTRE MARK 1399/13
- CADASTRE PAGE 2/7



- Infrastructure is in bad condition.
- Effect of material deposition failed (upstream, downstream).
- Irregular geometry of the structure. Partially effect of material deposition upstream and downstream visible. It is located upstream from revetment 1400-L2.



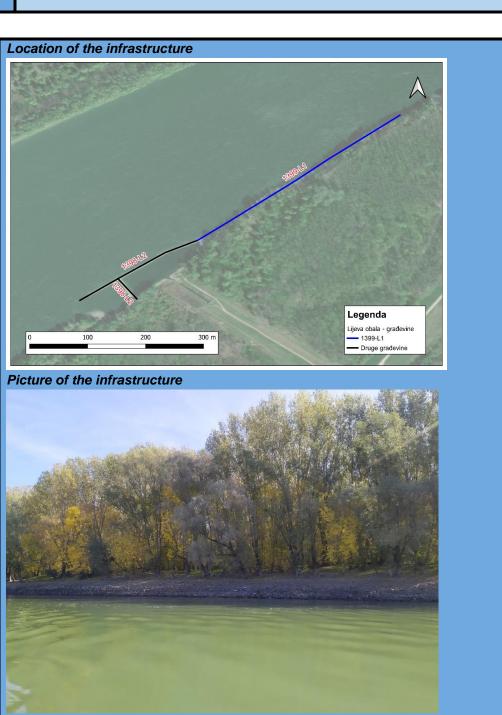
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 733. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1399-L1
 Revetment
 1399+658 do 1399+155
 465,62
 78,77

Existing documentation

- CADASTRE MARK 1399/11
- CADASTRE PAGE 2/8



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment. Vegetation present above the infrastructure. Visible material revetment.

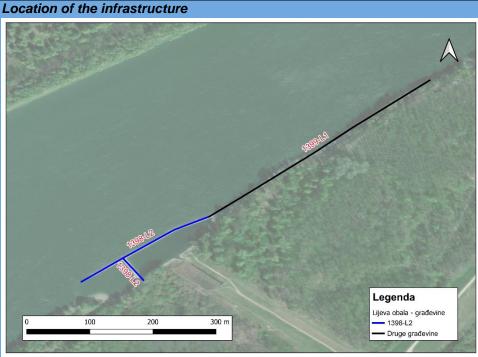


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 34. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1398-L2
 Parallel structure
 1399+155 do 1398+889
 251,53
 80,06

- CADASTRE MARK 1398/12
- CADASTRE PAGE 2/8







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1398-L2
 Parallel structure
 1399+155 do 1398+889
 251,53 80,06



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (downstream).
- Continuing on the revetment 1399-L1. Parallel structure material visible. Vegetation present on the groyne crown.

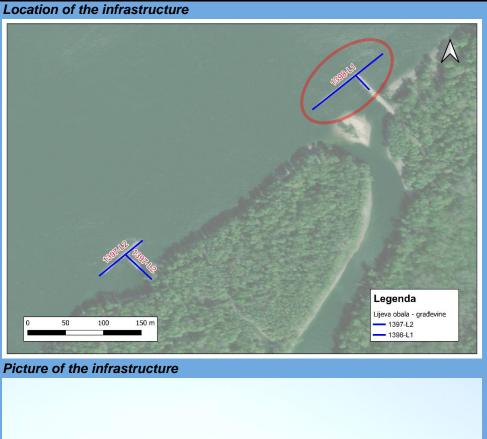


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 75. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1398-L1
 T-groyne
 1398+518
 138,45
 80,12

- CADASTRE MARK 1398/11
- CADASTRE PAGE 2/8







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1398-L1
 T-groyne
 1398+518
 138,45
 80,12



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 36. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1397-L2
 T-groyne
 1397+970
 85,97
 80,59

- CADASTRE MARK 1397/12
- CADASTRE PAGE 2/8







Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 7/2
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1397-L2
 T-groyne
 1397+970
 85,97
 80,59



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and starting effect of material deposition upstream and downstream visible. Fallen trees present on the groyne crown connection.

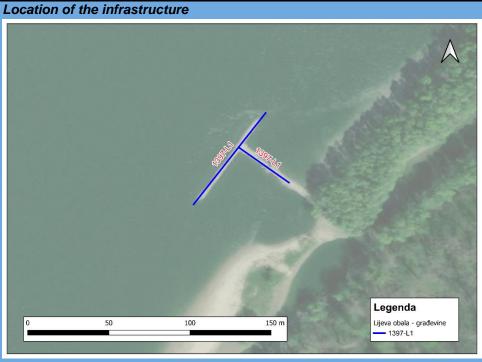


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 37. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1397-L1
 T-groyne
 1397+362
 91,82
 80,34

- CADASTRE MARK 1397/11
- CADASTRE PAGE 2/8







INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1397-L1
 T-groyne
 1397+362
 91,82
 80,34



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.



INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 T-groyne
 1396+824
 91,36
 78,71

Existing documentation

- CADASTRE MARK 1396/12
- CADASTRE PAGE 2/8



Picture of the infrastructure



- Infrastructure is in good condition.
- Effect of material deposition finished (upstream, downstream).
- Groyne connection, head material and significantly effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.



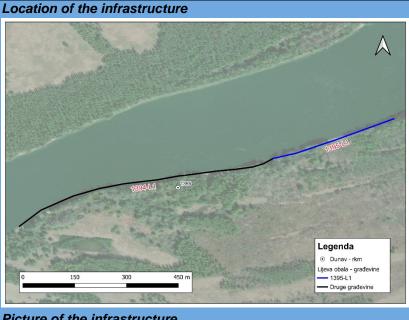
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 799:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1395-L1
 Revetment
 1395+615 do 1395+288
 384,67
 78,20

Existing documentation

- CADASTRE MARK 1395/13
- CADASTRE PAGE2/82/9





- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Visible material revetment. Vegetation and trees present above the infrastructure.



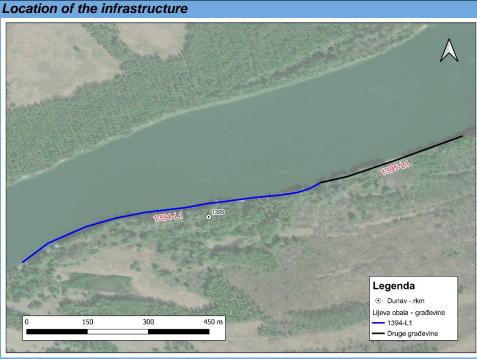
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 40. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1394-L1
 Revetment
 1395+288 do 1394+480
 806,21
 78,22

- CADASTRE MARK 1394/11
- CADASTRE PAGE 2/9



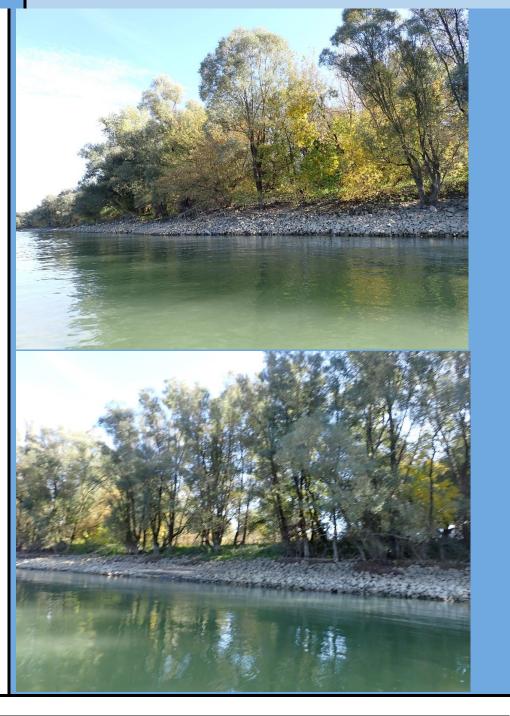




INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 40. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1394-L1
 Revetment
 1395+288 do 1394+480
 806,21
 78,22



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Visible material revetment. Vegetation and trees present above the infrastructure.

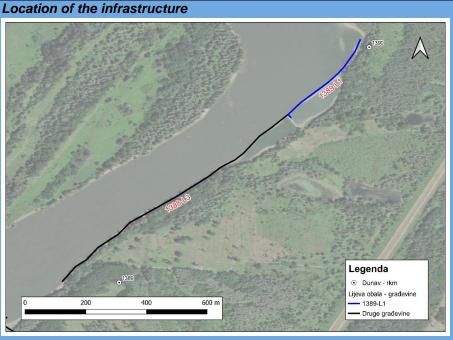


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1389-L1
 Parallel structure
 1390+052 do 1389+761
 427,78
 78,73

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7 ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1389-L1
 Parallel structure
 1390+052 do 1389+761
 427,78
 78,73



- Infrastructure is in good condition.
- River bank protection from erosion ongoing at low water levels.
- Parallel structure material visible. Vegetation and trees present above the infrastructure. Starting downstream of the revetment 1388-L3.



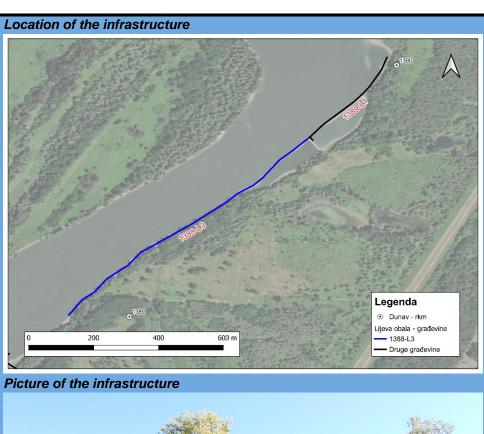
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 42. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1388-L3
 Revetment
 1389+761 do 1086,96
 79,62

 1388+890
 79,62

- CADASTRE MARK 1390/11
- CADASTRE PAGE 2/9 2/10







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 42. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1388-L3
 Revetment
 1389+761 do 1086,96 (m.a.s.l.)
 79,62 (m.a.s.l.)



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Begins at rkm 1390. Material of the structure and two groynes are visible g. Observed backfilling from the body of the building towards the shore. Effect of material deposition ongoing.

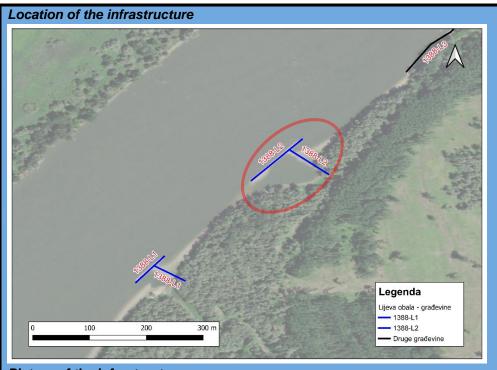


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 43. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1388-L2
 T-groyne
 1388+731
 136,16
 80,20

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 43. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1388-L2
 T-groyne
 1388+731
 136,16
 80,20



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- T-groyne, groyne connection, head material and effect of material deposition upstream and downstream visible.

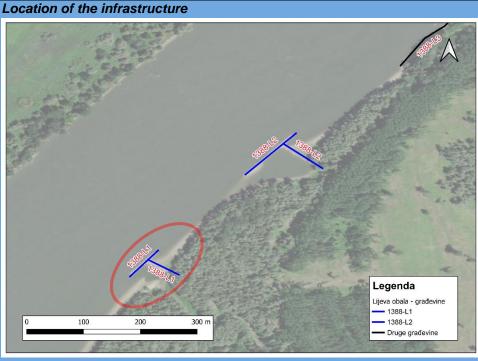


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 44. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1388-L1
 T-groyne
 1388+376
 82,18
 80,20

- CADASTRE MARK 1388/11
- CADASTRE PAGE 2/10







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1388-L1
 T-groyne
 1388+376
 82,18
 80,20



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- T-groyne, groyne connection, head material and effect of material deposition upstream and downstream visible.

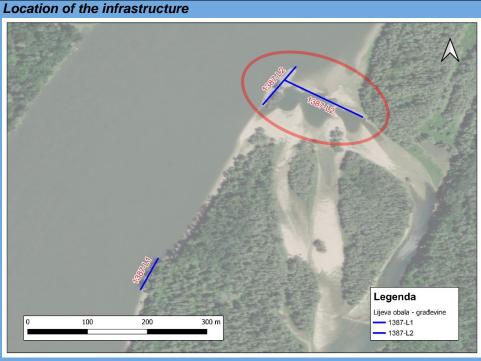


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 45. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1387-L2
 T-groyne
 1387+888
 104,24
 80,14

- CADASTRE MARK 1387/12
- CADASTRE PAGE 2/10







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1387-L2
 T-groyne
 1387+888
 104,24
 80,14



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- T-groyne, groyne connection, head material and effect of material deposition upstream and downstream visible. Vegetation present on the crown of the infrastructure.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 46. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1387-L1
 Revetment
 1387+428 do 1387+353
 78,55
 77,96

Existing documentation

- CADASTRE MARK
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- CADASTRE PAGE
 It is not visible in "Cadastre"

Location of the infrastructure



Picture of the infrastructure



- Infrastructure is in good condition.
- River bank erosion protection ongoing at medium water levels.
- Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure.

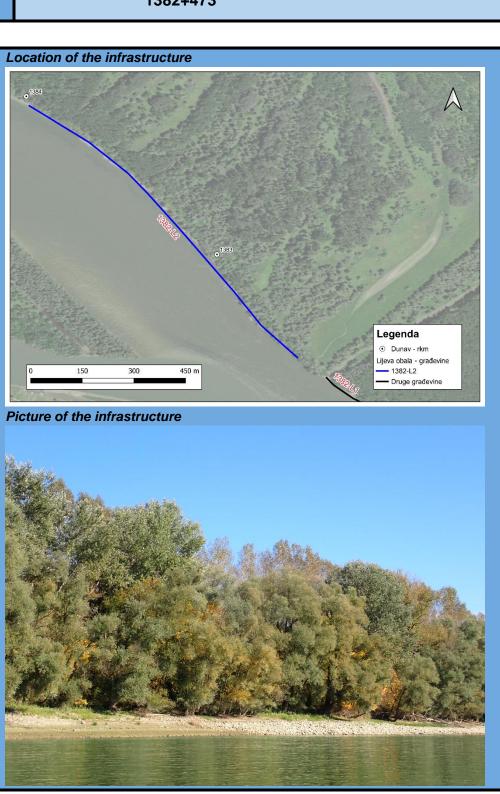


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 47. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1382-L2
 Revetment
 1383+971 do 1382+473
 1309,07
 78,10

- CADASTRE MARK
 1383/12
 1383/11
- CADASTRE PAGE 2/11





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 47. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1382-L2
 Revetment
 1383+971 do 1309,07 (m.a.s.l.)
 78,10 (m.a.s.l.)



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. River bank erosion behind revetment present. Visible material revetment at low water levels. Revetment in continuity.



Project number	r: I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 48. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1382-L1
 Imported fill
 1382+344 do 1382+148
 187,67
 83,18

Existing documentation CADASTRE

- CADASTRE MARK
 1382/11
- CADASTRE PAGE 2/1



- Infrastructure is in satisfying condition.
- Barrier on backwater flow failed at low water level.
- Visible material revetment along the slope downstream. Vegetation above the revetment. On the upstream part of the infrastructure, revetment material is not visible.



STUDY
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 49. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1381-L1
 T-groyne
 1381+241
 82,61
 79,67

- CADASTRE MARK 1381/11
- CADASTRE PAGE 2/1







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 49. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1381-L1
 T-groyne
 1381+241
 82,61
 79,67



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.

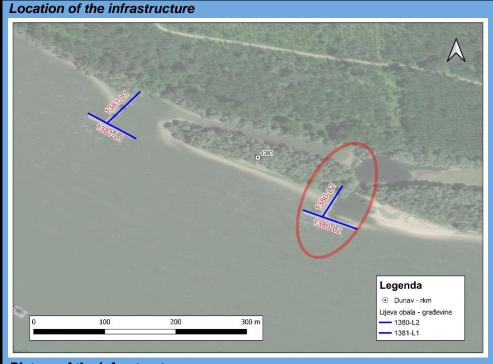


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1380-L2
 T-groyne
 1380+837
 84,03
 79,89

- CADASTRE MARK 1380/12
- CADASTRE PAGE 2/1



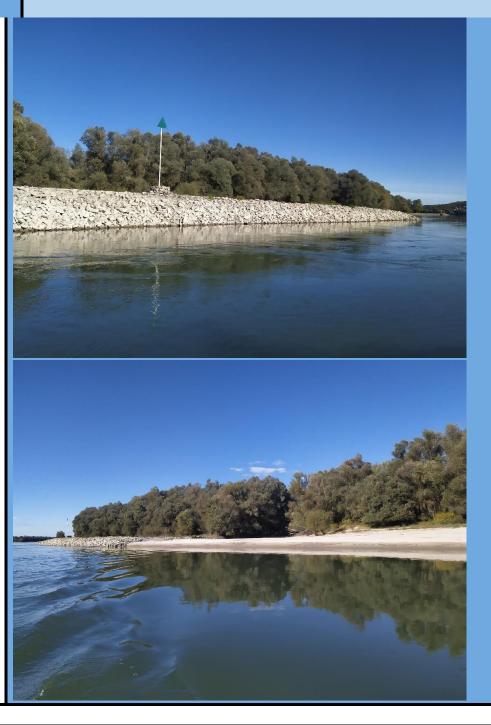




Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1380-L2
 T-groyne
 1380+837
 84,03
 79,89



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection and head material visible. Starting effect of material deposition upstream. Downstream effect of material deposition finished.

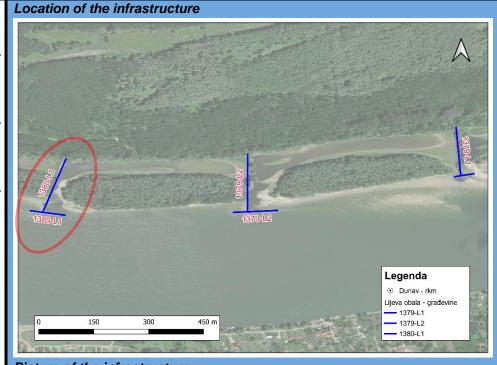


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 51. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1380-L1
 T-groyne
 1380+199
 95,57
 79,87

- CADASTRE MARK 1380/11
- CADASTRE PAGE 2/2







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1380-L1
 T-groyne
 1380+199
 95,57
 79,87



- Infrastructure is in excellent condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and starting effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.

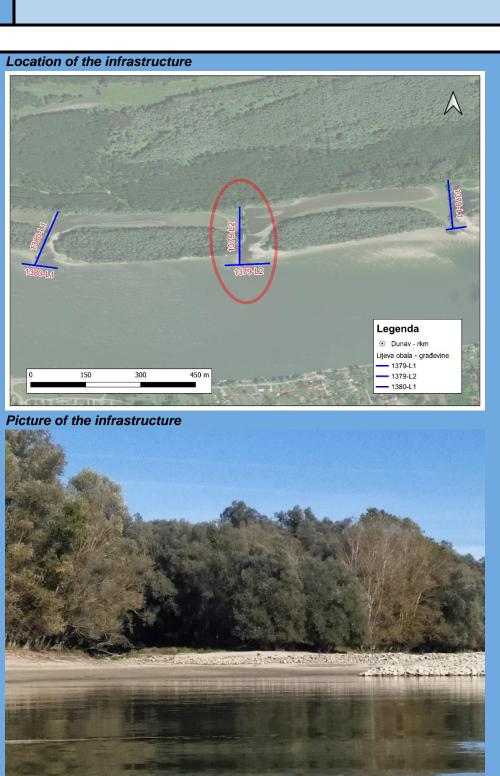


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1379-L2
 T-groyne
 1379+588
 119,68
 79,74

- CADASTRE MARK 1379/12
- CADASTRE PAGE 2/2





Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1379-L2
 T-groyne
 1379+588
 119,68
 79,74



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection and head material visible. Visible deformation of the part of groyne head upstream. Starting effect of material deposition upstream. Downstream effect of material deposition finished.

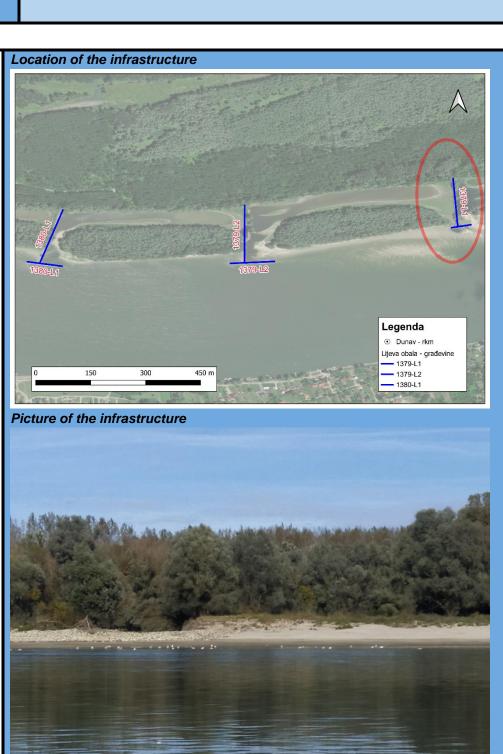


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1379-L1
 T-groyne
 1379+058
 53,27
 79,67

- CADASTRE MARK 1379/11
- CADASTRE PAGE 2/2





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1379-L1
 T-groyne
 1379+058
 53,27
 79,67



- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream, downstream).
- Groyne head material and effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.



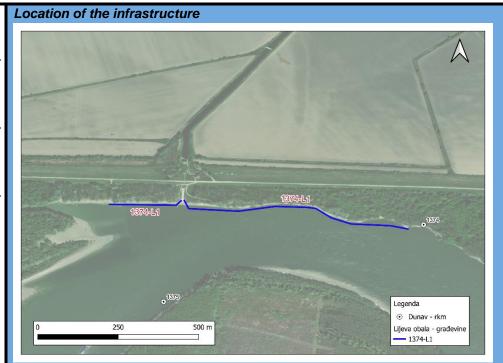
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1374-L1
 Revetment
 1374+911 do 1374+031
 976,28
 79,71

- CADASTRE MARK 1375/11
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1374-L1
 Revetment
 1374+911 do 1374+911 do 1374+031
 976,28
 79,71



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. River bank erosion behind revetment present. Visible material revetment at low water levels from the river side.

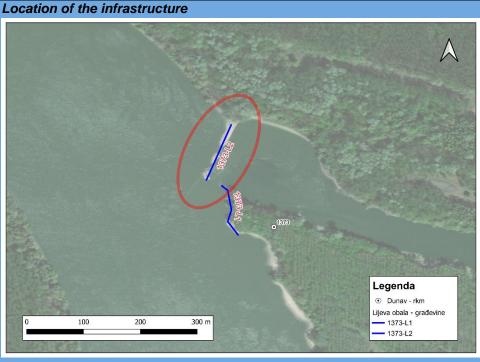


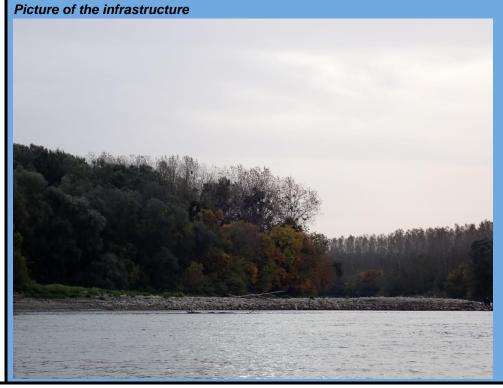
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1373-L2
 Barrier
 1373+269 do 1373+839
 144,36 80,11

- CADASTRE MARK 1373/10
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1373-L2
 Barrier
 1373+269 do 144,36 80,11 1373+839



- Infrastructure is in bad condition.
- Barrier on backwater flow failed at low water level.
- Barrier material visible. Irregular geometry of the structure. Downstream open barrier.



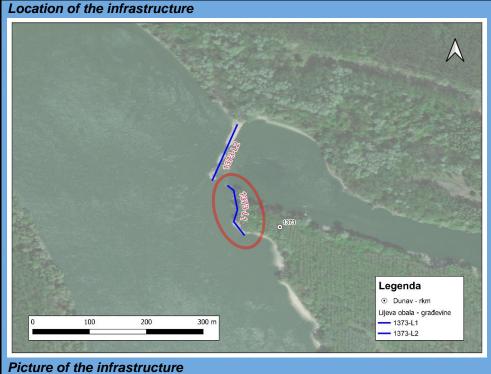
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1373-L1
 Revetment
 1373+137 do 1373+000
 132,41
 77,37

- CADASTRE MARK 1372/11
- CADASTRE PAGE 2/3







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

56. Left bank

Туре:

Chainage (r.km)

Length (m)

Crown elevation

(m.a.s.l.)

1373-L1

Revetment 1373+137 do 1373+000

132,41

77,37



- Infrastructure is in satisfying condition.
- River bank erosion protection ongoing at medium water levels.
- Stone revetment. Visible parts of material revetment upstream.



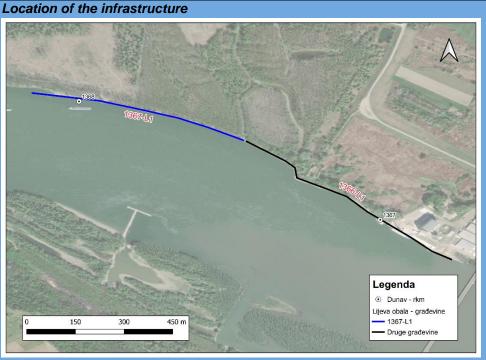
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1367-L1
 Revetment
 1368+135 do 1367+521
 686,66
 77,34

- CADASTRE MARK 1367/11
- CADASTRE PAGE 2/4







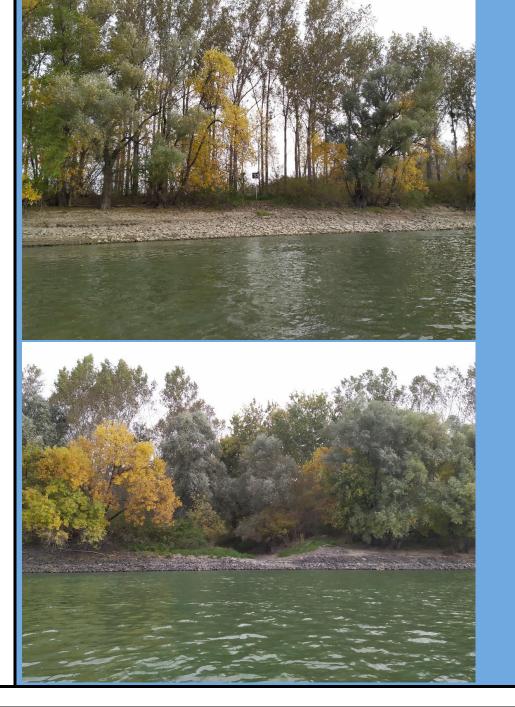
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

1367-L1

57. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1368+135 do 686,66 77,34 1367+521



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. River bank erosion behind revetment present. Visible material revetment at low water levels from the river side.

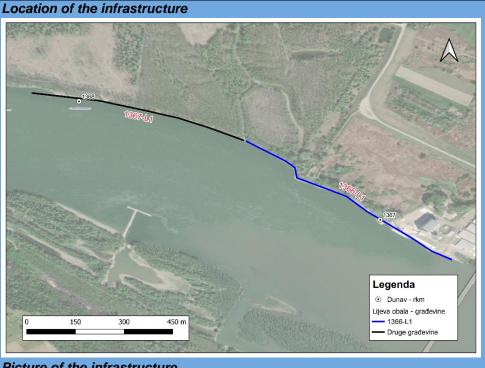


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1366-L1
 Revetment
 1367+510 do 1366+727
 834,08
 77,28

- CADASTRE MARK 1366/12
- CADASTRE PAGE 2/4







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

58. Left bank

Туре:

Chainage (r.km)

Length (m)

Crown elevation (m.a.s.l.)

1366-L1

Revetment 1367+510 do 1366+727

834,08

77,28



- Infrastructure is in good condition.
- River bank erosion protection ongoing at high water levels.
- Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure. Downstream on the revetment operational plateau of the Port of Dunav-Bogojevo.

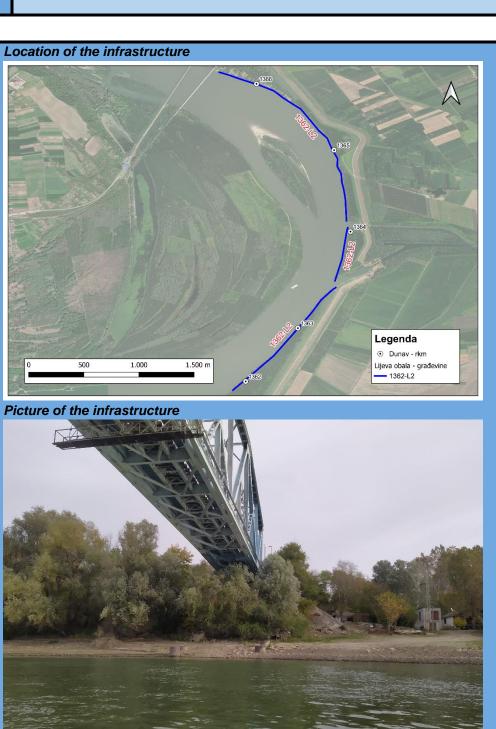


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1362-L2
 Revetment
 1366+360 do 1361+862
 4745,33
 77,16

- CADASTRE MARK 1365/11
- CADASTRE PAGE2/4





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1362-L2
 Revetment
 1366+360 do 1361+862
 4745,33
 77,16





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

7ype: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1366+360 do 1361+862 77,16



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. Irregular geometries of the structure. At the settlement of Bogojevo, concrete stairs were built along the slope of the revetment. At the floodgate on the Danube-Tisa-Danube canal, the revetment material is from stone blocks. Downstream of the floodgate partially visible material and vegetation above the structure.

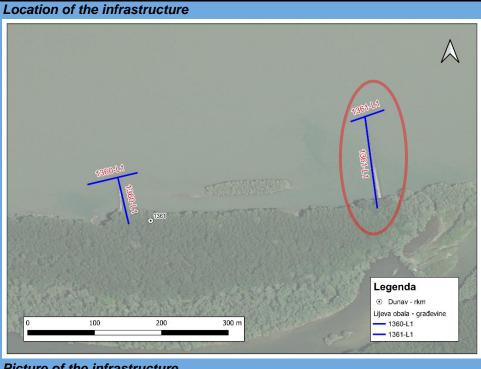


INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1361-L1
 T-groyne
 1361+336
 53,75
 78,10

- CADASTRE MARK 1361/12
- CADASTRE PAGE 2/5







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 60. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1361-L1
 T-groyne
 1361+336
 53,75
 78,10



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne conection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.

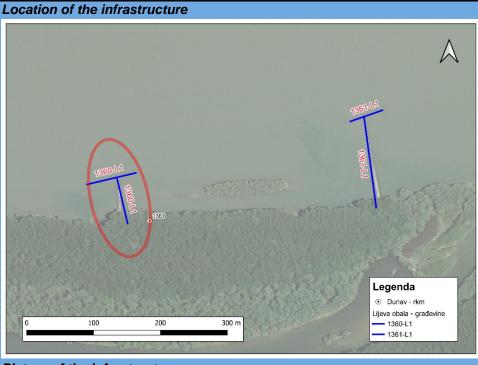


Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 61. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-L1
 T-groyne
 1360+978
 76,75
 78,72

- CADASTRE MARK 1361/11
- CADASTRE PAGE 2/5







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1360-L1
 T-groyne
 1360+978
 76,75
 78,72



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.

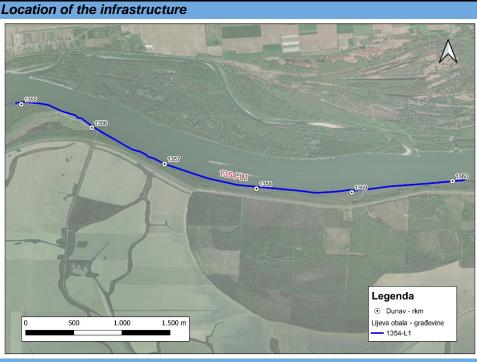


STUDY
INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1354-L1
 Revetment i Parallel structure
 1360+121 do 1354+950 structure
 5051,73
 77,19

- CADASTRE MARK 1358/13
- CADASTRE PAGE 2/6







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

62. Left bank

Type:

Chainage (r.km)

Length (m)

Crown elevation (m.a.s.l.)

(m.a.s

1354-L1

Revetment i Parallel 1360+121 do 1354+950 5051,73

77,19



- Infrastructure is in satisfying condition.
- River bank protection from erosion ongoing at low water levels. Effect of material deposition ongoing (upstream, downstream).
- Stone revetment. Visible material revetment. Above the structure vegetation and trees are present. Downstream of rkm 1355, the revetment is in bad conditions, river bank protection failed at low water levels. Visible parallel structure material. In continuity with the revetment.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

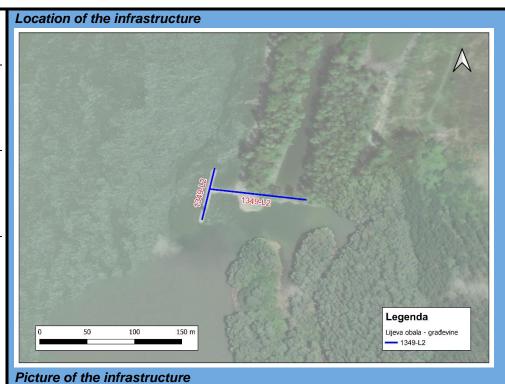
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 T-groyne
 1349+818
 76,62
 78,94

- CADASTRE MARKIt is not visible in "Cadastre"
- CADASTRE PAGE It is not visible in "Cadastre"







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1349-L2
 T-groyne
 1349+818
 76,62
 78,94



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 74. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1349-L1
 T-groyne
 1349+183
 71,64
 79,20

- CADASTRE MARK 1349/12
- CADASTRE PAGE 2/8





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1349-L1
 T-groyne
 1349+183
 71,64
 79,20



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection, head material and starting effect of material deposition upstream and downstream visible. Vegetation present on the groyne crown connection.



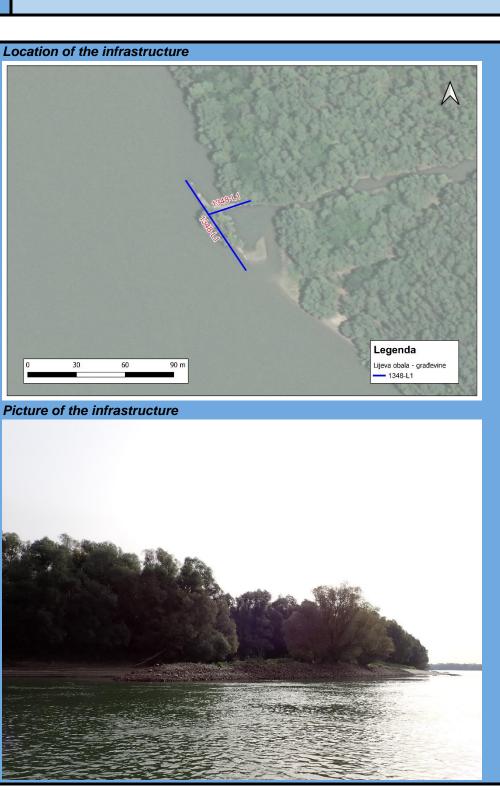
Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 T-groyne
 1348+577
 86,19
 79,05

Existing documentation CADASTRE MARK 1349/11

• CADASTRE PAGE 2/8





Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1348-L1
 T-groyne
 1348+577
 86,19
 79,05



- Infrastructure is in good condition.
- Effect of material deposition ongoing (upstream, downstream).
- Groyne connection and head material visible. Starting effect of material deposition upstream.
 Downstream effect of material deposition finished. Trees present on the groyne crown connection and head.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

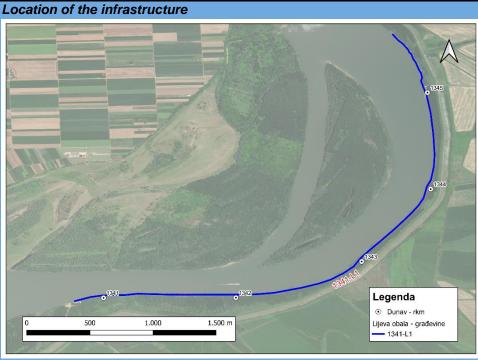
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1341-L1
 Revetment
 1345+622 do 1341+684
 5170,32
 77,31

- CADASTRE MARK 1342/11
- CADASTRE PAGE 2/9







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 7ype:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1341-L1
 Revetment
 1345+622 do 1341+684
 5170,32
 77,31



- Infrastructure is in excellent/bad condition.
- River bank erosion protection ongoing at medium water levels upstream from rkm 1345. Downstream from rkm 1345 river bank erosion protection failed.
- Upstream from rkm 1345, river bank erosion protection ongoing at medium water levels.
 Downstream from rkm 1345, the revetment is in bad condition, river bank erosion protection failed at low water levels.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

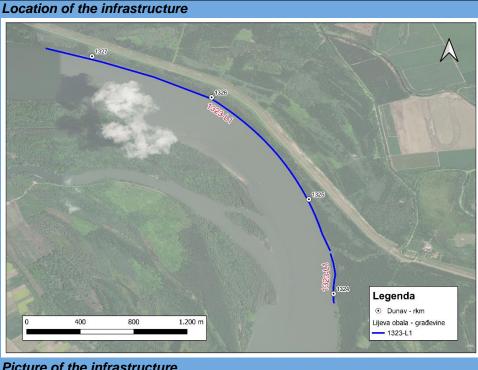
Client: Ministry of the Sea, Transport and Infrastructure

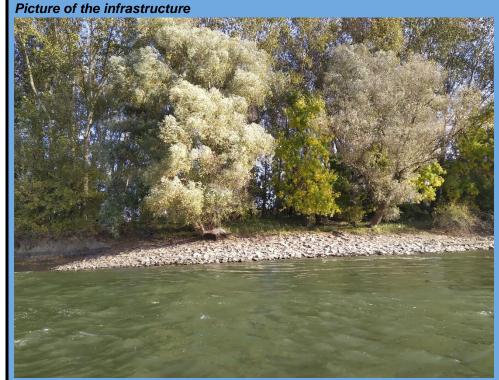
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

67. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1323-L1	Revetment	1327+677 do	3725,07	76,66
.020 2.		1323+925		

- CADASTRE MARK
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- CADASTRE PAGE It is not visible in "Cadastre".



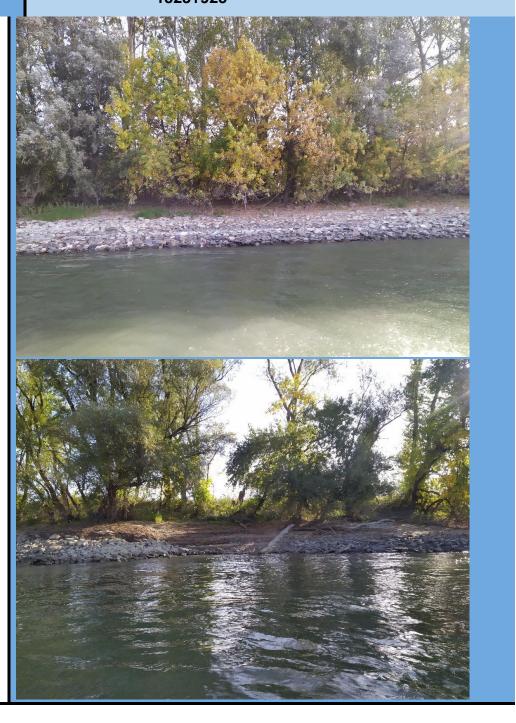




Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

7ype: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1327+677 do 3725,07 76,66 1323+925



- Infrastructure is in satisfying condition.
- River bank erosion protection ongoing at low water levels.
- Revetment material visible at low water levels on the river side. River bank erosion behind revetment present. Vegetation present above the infrastructure.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

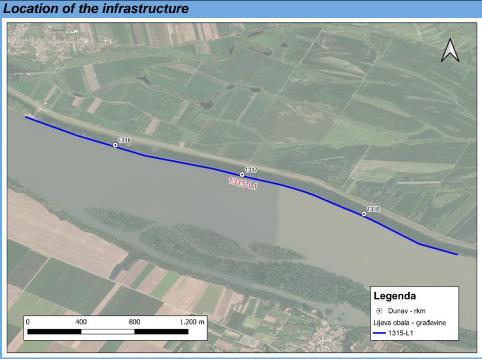
Client: Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

68. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1315-L1	Revetment	1318+381 do	3561,75	75,81
.0.0		1315+187		

- CADASTRE MARK
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- CADASTRE PAGE It is not visible in "Cadastre".



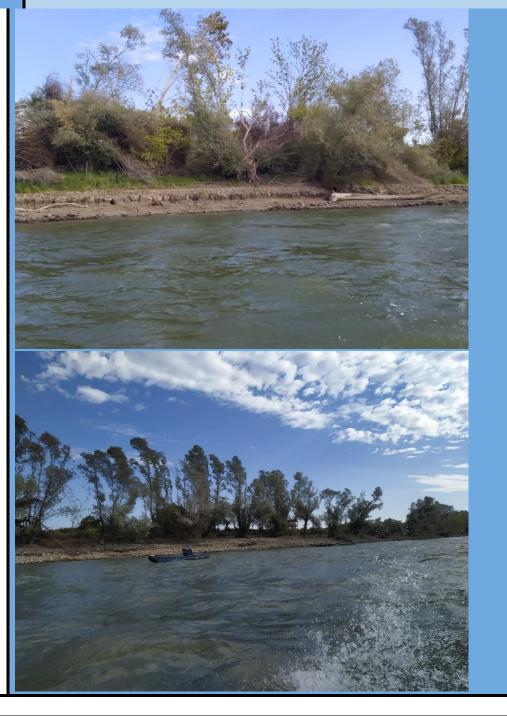




Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 7 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1315-L1
 Revetment
 1318+381 do 1315+187
 3561,75
 75,81



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

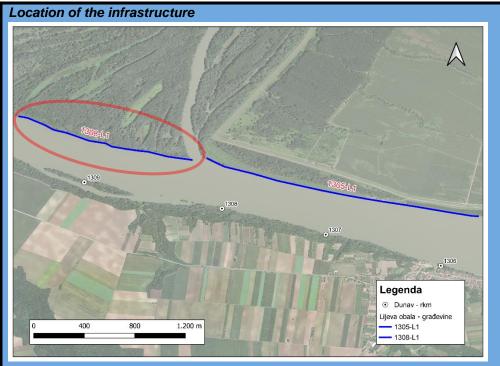
Client: Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

69. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1308-L1	Revetment	1309+840 do	1468,76	75,55
		1308+617		

- CADASTRE MARK
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- CADASTRE PAGE It is not visible in "Cadastre".







Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

69. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1309+840 do 1468,76 75,55
1308+617



- Infrastructure is in good condition.
- River bank erosion protection ongoing at low water levels.
- Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure.



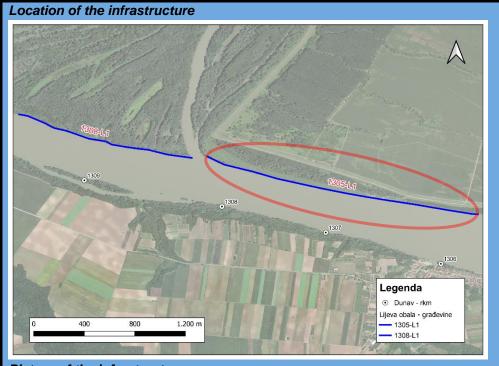
Project number:I-2206/24Main designer:Igor Tadić, M.Sc.Eng.Client:Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

70. Left bank	Туре:	Chainage (r.km)	Length (m)	Crown elevation
				(m.a.s.l.)
1305-L1	Revetment	1308+282 do 1305+842	2249,99	75,39

- CADASTRE MARK
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- CADASTRE PAGE It is not visible in "Cadastre".







Project numb	per: I-2206/24	
Main designe	er: Igor Tadić, M.Sc.Eng.	
Client:	Ministry of the Sea, Transport and Infrastructure	
STUDY		

70. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1308+282 do 2249,99 75,39 1305+842



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind from the river side.



Project number:I-2206/24Main designer:Igor Tadić, M.Sc.Eng.Client:Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

71. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1300+805 do 746,58 75,34

1300+116

- CADASTRE MARK
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- CADASTRE PAGE It is not visible in "Cadastre".







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

71. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1300+805 do 746,58 75,34
1300+116



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. River bank erosion behind revetment present. Revetment material visible at low water levels on the river side.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

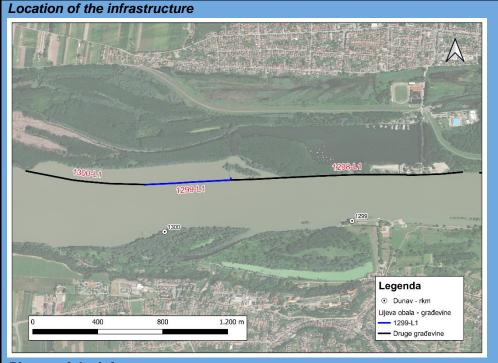
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

 72. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1299-L1
 Parallel structure
 1300+116 do 1299+648
 527,23
 75,35

- CADASTRE MARK
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- CADASTRE PAGE It is not visible in "Cadastre".







Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 72. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1299-L1
 Parallel structure
 1300+116 do 1299+648
 527,23
 75,35



- Infrastructure is in satisfying condition.
- Effect of material deposition ongoing (upstream, downstream).
- Material on the parallel structure visible. Crown elevation it is not in continuity.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

73. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1299+648 do 1426,43 76,34 1298+275

- CADASTRE MARK
 It is not visible in "Cadastre".
- CADASTRE PAGE It is not visible in "Cadastre".





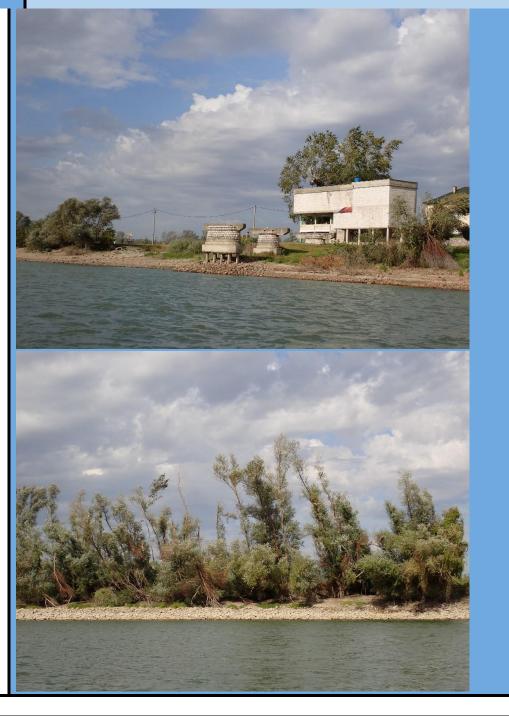


Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

73. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

Revetment 1299+648 do 1426,43 76,34 1298+275



- Infrastructure is in bad condition.
- River bank erosion protection failed.
- Stone revetment. River bank erosion behind revetment present. Revetment material visible at low water levels on the river side.

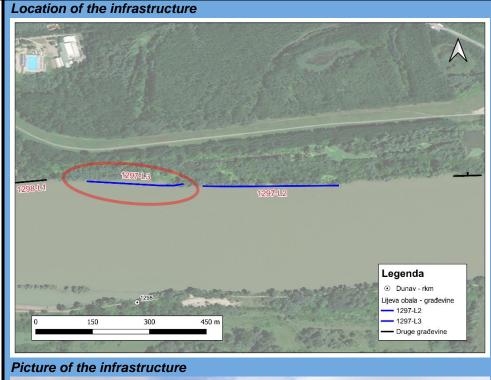


Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
0711011	

 74. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1297-L3
 T-groyne
 1297+889
 252,48
 75,94

- CADASTRE MARK 1297/13
- CADASTRE PAGE 2/18







Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

 74. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1297-L3
 T-groyne
 1297+889
 252,48
 75,94



- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream, downstream).
- Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition finished. Connected with groyne head 1297-L2.



Project number: I-2206/24

Main designer: Igor Tadić, M.Sc.Eng.

Client: Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

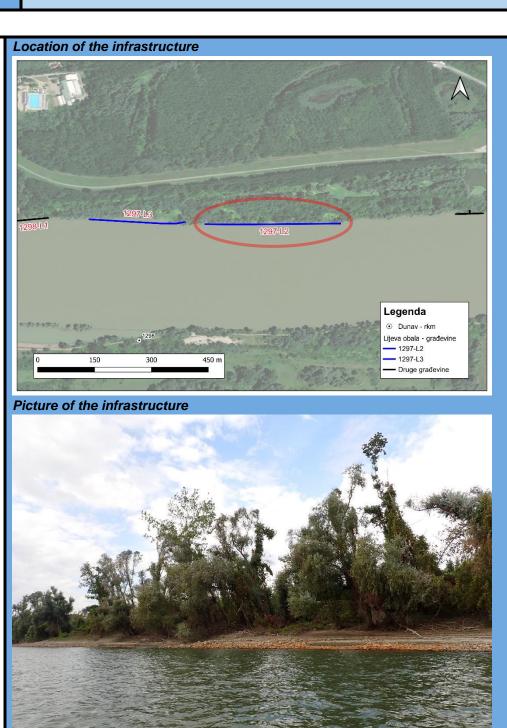
75. Left bank

Type: Chainage (r.km) Length (m) Crown elevation (m.a.s.l.)

1297-L2

T-groyne 1297+477 356,02 76,06

- CADASTRE MARK 1297/12
- CADASTRE PAGE 2/18





Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 75. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1297-L2
 T-groyne
 1297+477
 356,02
 76,06



- Infrastructure is in satisfying condition.
- Effect of material deposition finished (upstream, downstream).
- Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition finished. Connected with groyne head 1297-L3.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

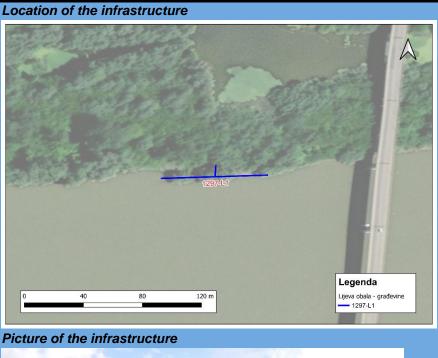
STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

76. Left bank Crown elevation Туре: Chainage (r.km) Length (m) (m.a.s.l.) T-groyne 1297+116 71,76 76,23 1297-L1

Existing documentation

- CADASTRE MARK 1297/11
- CADASTRE **PAGE** 2/18





- Infrastructure is in good condition.
- Effect of material deposition ongoing (downstream).
- Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition ongoing.



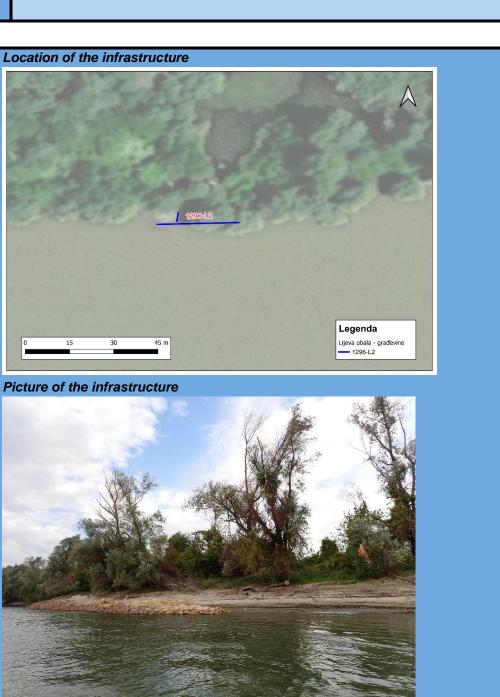
Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

 77. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1296-L2
 T-groyne
 1296+796
 27,64
 76,05

Existing documentation

- CADASTRE MARK 1296/12
- CADASTRE PAGE 2/18



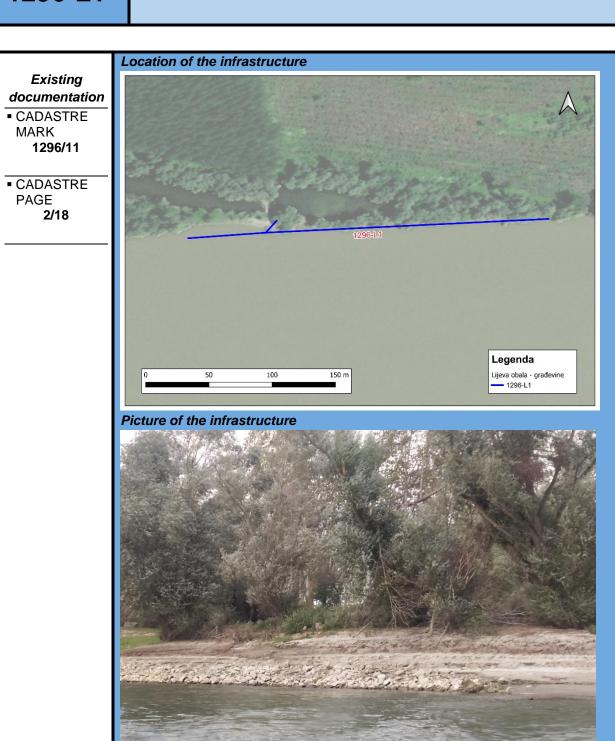
- Infrastructure is in good condition.
- Effect of material deposition ongoing (downstream).
- Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition ongoing.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

 78. Left bank
 Type:
 Chainage (r.km)
 Length (m)
 Crown elevation (m.a.s.l.)

 1296-L1
 T-groyne
 1296+413
 285,83
 75,24





Project number:	I-2206/24
Main designer:	lgor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure
STUDY	

78. Left bank

Туре:

Chainage (r.km)

Length (m)

(m.a.s.l.)

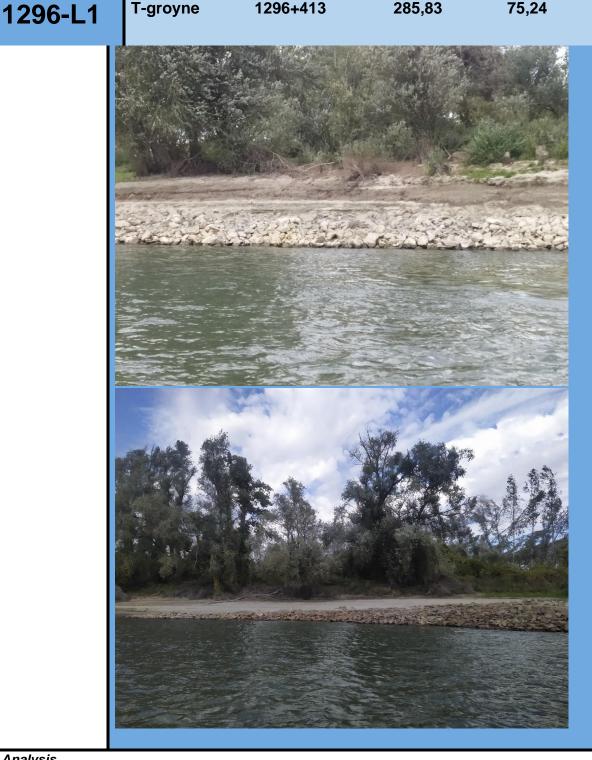
Crown elevation

T-groyne

1296+413

285,83

75,24



- Infrastructure is in good condition.
- Effect of material deposition ongoing (downstream).
- Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition ongoing.



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

4 TABLE OVERVIEW OF RIVER REGULATION INFRASTRUCTURES

4.1 TABLE OVERVIEW OF RIVER REGULATION INFRASTRUCTURES – RIGHT BANK

	RIVER REGULATION INFRASTRUCTURES – RIGHT BANK OF DANUBE RIVER														
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> **	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S - upstream **	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
1	It is not visible in "Cadastre"	1432-D3	No data	Groyne	1432+638	81,06	83,05	No data	No data	No data	No data	No data	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne, the beginning of material deposition upstream and downstream of the groyne and trees on the groyne crown are visible.
2	1432/1	1432-D2	2/1	Groyne	1432+339	137,41	82,33	2	1:1	1:1.5	0	1972	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Upstream on the groyne, stone washout under the groyne crown connection is visible.



Project number: I-2206/24 Igor Tadić, M.Sc.Eng. Ministry of the Sea, Transport and Infrastructure

	RIVER REGULATION INFRASTRUCTURES – RIGHT BANK OF DANUBE RIVER														
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S - upstream ** -*	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur e **	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
3	It is not visible in "Cadastre"	1432-D1	No data	Groyne	1432+073	185,72	82,2	No data	No data	No data	No data	No data	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Upstream on the groyne, stone washout under the groyne crown connection is visible.
4	1431/1	1431-D1	2/1	Groyne	1431+633	202,23	81,93	4	1:1	1:1.5	0	1972	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Upstream on the groyne, stone washout under the groyne crown connection is visible.



Project number: I-2206/24 Main designer: Igor Tadić, M.Sc.Eng. Ministry of the Sea, Transport and Infrastructure

	RIVER REGULATION INFRASTRUCTURES – RIGHT BANK OF DANUBE RIVER														
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" paqe</u> **	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S - upstream ** -*	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
5	1428/3	1429-D1	2/2	T-groyne	1429+282	124,15	82,45	2	1:1 -	1:1,5	55,00 45,00	1972	Good	Effect of material deposition ongoing (upstream, downstream).	Stone material of groyne head and plants and trees on groyne crown head are visible. Material deposit and overgrowth of trees on groyne connection are visible.
6	1428/2	1428-D1	2/2	T-groyne	1428+940	132,56	82,32	2	1:1 -	1:1,5 -	10,00 43,00	1972	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. The beginning of material deposition upstream and downstream of the groyne and plants and trees on groyne crown are visible.



Project number: I-2206/24 Main designer: Igor Tadić, M.Sc.Eng. Ministry of the Sea, Transport and Infrastructure

RIVER REGULATION INFRASTRUCTURES – RIGHT BANK OF DANUBE RIVER															
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7	1427/1	1427-D5	2/2	Revetment	1428+442 do 1427+617	1015,98	82,16	0	0	0	0	1893-1913	Satisfying	River bank protection from erosion ongoing at low water levels.	The beginning of revetment downstream of the groyne 1427-D4 is visible. The river bank is partially collapsed and overgrown with trees and vegetation. The end of revetment is visible upstream of the parallel 1427-D3.
8	1428/1	1427-D4	2/2	T-groyne	1427+615	479,10	82,95	2	1:1	1:1,5	0	1971	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. The beginning of material deposition upstream and downstream of the groyne and plants and trees on groyne crown are visible.
9	1427/2	1427-D3	2/2	Parallel structure	1427+617 do 1427+524	114,10	81,89	2	0	1:1,5	0	1975	Good	Effect of material deposition ongoing (upstream, downstream).	Parallel structure continues on a revetment 1427-D5. Vegetation is visible on the crown of the parallel structure.



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	RIVER REGULATION INFRASTRUCTURES – RIGHT BANK OF DANUBE RIVER														
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10	It is not visible in "Cadastre"	1427-D2	No data	Parallel structure with groyne	1427+480 do 1427+307	183,92	81,23	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	Rooting of the parallel is connected to the barrier 1427-D1. Stone material and material deposit upstream of the parallel structure are visible.
11	1427/3	1427-D1	2/2	Barrier	1427+395	47,02	82,83	0	0	0	0	1897-1900	Satisfying	Barrier on backwater flow finished at low water level.	Barrier is not visible from the river side. Vegetation is visible on the crown of the barrier.
12	1426/3	1426-D2	2/2	Parallel structure	1426+444 do 1426+303	99,63	82,33	0	0	0	0	1908-1909	Satisfying	Effect of material deposition finished (upstream, downstream).	Bevel of the stone connected to the river bank is visible. Material deposition upstream and downstream is visible as well as overgrowth of vegetation.



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13	1426/2	1426-D1	2/2	Groyne	1426+131	148,22	81,95	0	0	0	ō	1908-1909	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Stone material of bevel of groyne head connected to the river bank is visible. Material deposit upstream and downstream of the groyne and overgrowth of plants are visible.
14	1426/1	1425-D1	2/2	Groyne	1425+895	147,87	82,4	0	0	0	0	1908-1909	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Stone material of bevel of groyne head connected to the river bank is visible. Material deposit upstream and downstream and overgrowth of plants are visible.
15	1424/2	1423-D5	2/3	Groyne	1423+825	45,36	83,11	0	0	0	0	1897-1897	Satisfying	Effect of material deposition finished (upstream, downstream).	Material deposit upstream and downstream of the groyne and overgrowth of plants are visible. Stone material is not visible.



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16	1424/1	1423-D4	2/2 2/3	Revetment	1425+717 do 1423+743	1581,78 + 410,67	89	ō	0	0	0	0	Excellent	River bank erosion protection ongoing at high water levels.	City-type revetment. Confluence of Karašica river and revetment near passenger wharf Batina are in excellent condition Downstream of the wharf, revetment is in the process of reconstructio n (embankme nt Gomboš- Batina).
17	1424/3	1423-D3	2/3	Groyne	1423+773	54,03	82,35	0	0	0	0	1897-1897	Satisfying	Effect of material deposition finished (upstream, downstream).	Material deposit upstream and downstream of the groyne and overgrowth of plants are visible. Stone material is not visible.



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18	1423/3	1423-D2	2/3	Parallel structure	1424+102 do 1423+211	970,43	81,97	ō	0	0	ō	1897-1898	Excellent	Effect of material deposition ongoing (upstream, downstream).	Stone material of parallel structure is visible. Material deposition and overgrowth of vegetation can be seen on the groyne connected to the river bank. Parallel structure continues on a revetment 1423-D4.
19	1423/2	1423-D1	2/3	Barrier	1423+211	200,03	83,21	0	0	0	0	1961-1965	Good	Barrier on backwater flow finished at low water level.	Barrier is covered with dirt and vegetation. Stone material of barrier can be partially seen. Also, vegetation on the crown of the barrier is present.
20	1423/4	1422-D2	2/3	Revetment	1423+211 do 1422+590	620,66	85,32	0	0	0	0	1897-1898	Good	River bank erosion protection ongoing at medium water levels.	Stone revetment in weekend settlement "Zeleni otok". Concrete staircases and approaches to pontoons for boats along the bevels.



					RIVER	REGULATION	INFRASTRUC1	URES – RIGH1	BANK OF DA	ANUBE RIVER					
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21	1422/1	1422-D1	2/3	T-groyne	1422+025	69,87	81,76	2	1:1 -	1:1,50 -	0	1970-1972	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Collapsed part of the groyne head is visible. Material deposit upstream and downstream of the groyne is visible.
22	1421/3	1421-D2	2/3	T-groyne	1421+655	55,22	81,71	0	1:1 -	1:1,50 -	0	1970-1972	Good	Effect of material deposition ongoing (upstream, downstream).	Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.
23	1421/2	1421-D1	2/3	T-groyne	1421+288	52,42	81,71	0	1:1	1:1,50	0	1970-1972	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Collapsed part of the groyne head and material deposit upstream and downstream of the groyne are visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
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24	1421/1	1420-D2	2/3	T-groyne	1420+980	52,21	81,82	2	1:1 -	1:1,50	0	1970-1972	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Collapsed part of the groyne head and material deposit upstream and downstream of the groyne are visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.
25	1420/1	1420-D1	2/3	T-groyne	1420+748	56,29	81,77	2	1:1	1:1,50	0	1970-1971- 1972	Good	Effect of material deposition ongoing (upstream, downstream).	Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.
26	1418/1	1418-D1	2/3 2/4	Revetment	1420+760 do 1418+067	2862,74	81,19	0	0	0	0	1970-1979	Good	River bank erosion protection ongoing at low water levels.	Stone revetment above which is a stone river bank overgrown with plants and trees. Revetment ends at the entrance in Zmajevački Dunavac.



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27	1417/1	1417-D4	2/4	T-groyne	1417+876	96,09	79,48	1	1:1 -	1:1,50 -	0	1976	Good	Effect of material deposition ongoing (upstream, downstream).	Stone material of groyne head is visible. Groyne connection is overgrown with plants and covered with sand.
28	1416/2	1417-D3	2/4	T-groyne	1417+371	48,50	79,12	2	1:1 -	1:1,50 -	0	1976	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Sand deposit upstream and downstream of the groyne. Stone material of groyne head is visible.
29	1417/2	1417-D2	2/4	Revetment	1418+032 do 1417+169	1137,08	81,14	0	0	0	0	1976	Satisfying	River bank erosion protection ongoing at low water levels.	Revetment is partially collapsed. Behind groyne 1417-D4 stone material of revetment is not visible.
30	1416/1	1417-D1	2/4	Parallel structure	1417+156 do 1417+022	149,82	80,38	1	0	0	0	1976	Bad	Effect of material deposition failed (upstream, downstream).	Stone material of parallel structure is visible and it has an irregular geometry.



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31	1416/3	1416-D1	2/4	Parallel structure	1416+982 do 1416+769	289,00	81,25	1	0	0	Ō	1976	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Material deposition upstream and downstream of the parallel structure is present. Stone material of parallel structure at low water levels can be seen.
32	It is not visible in "Cadastre"	1412-D1	No data	Revetment	1412+888 do 1412+363	518,67	80,27	No data	No data	No data	No data	No data	Satisfying	River bank erosion protection ongoing at low water levels.	Stone material of revetment is visible. Revetment is partially washed away and geotextile is spotted beneath the stone material.
33	1412/1	1411-D1	2/5	Revetment	1412+307 do 1411+967	325,62	80,94	0	0	0	0	1937-1937	Excellent	River bank erosion protection ongoing at low water levels.	Stone material of revetment and vegetation above it are visible.
34	1409/2	1409-D2	2/6	T-groyne	1409+413	98,57	78,89	0	0	0	0	1909-1910	Bad	Effect of material deposition failed.	Stone material of groyne head and rooting of groyne are visible. Groyne head and groyne connection are separated.



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35	1409/1	1409-D1	2/6	T-groyne	1409+115	139,74	80,48	0	0	0	ō	1909-1910	Bad	Effect of material deposition failed.	Stone material of groyne head and rooting of groyne are visible. Groyne head and groyne connection are separated.
36	1408/3	1408-D3	2/6	T-groyne	1408+819	203,94	80,88	0	0	0	0	1909-1910	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. Material deposition on the river bank downstream of the groyne, upstream still in the function of material deposition.
37	1408/2	1408-D2	2/6	T-groyne	1408+532	151,05	80,89	0	0	0	0	1909-1910	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. Material deposition on the river bank downstream of the groyne, upstream still in the function of material deposition. Trees are visible on the groyne crown.



						RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER	?				
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	38	1408/1	1408-D1	2/6	T-groyne	1408+245	149,85	80,05	0	0	0	0	1909-1910	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. The beginning of material deposition upstream and downstream of the groyne is present. Downstream on the groyne connection, stone washout under the groyne connection is visible.
	39	It is not visible in "Cadastre"	1407-D2	No data	Parallel structure	1407+860 do 1407+751	111,89	79,14	No data	No data	No data	No data	No data	Bad	Effect of material deposition failed (upstream, downstream).	Collapsed stone material of parallel structure is visible at low water levels.
2	40	1407/1	1407-D1	2/6	Revetment	1407+751 do 1407+335	432,75	78,63	0	0	0	0	1909-1910	Bad	River bank erosion protection failed.	Stone revetment. Washout and collapse of river bank behind revetment are spotted. Stone material is visible at low water levels.



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41	1406/1	1406-D3	2/6	Revetment	1406+978 do 1406+667	238,98	81,1	0	0	0	0	1893-1894	Excellent	River bank erosion protection ongoing at low water levels.	Stone material of revetment is visible as well as vegetation above it. Revetment is continuous.
42	It is not visible in "Cadastre"	1406-D2	No data	T-groyne	1406+281	91,25	80,39	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	T-groyne, stone material of groyne head and groyne connection are visible. Newly built groyne.
43	It is not visible in "Cadastre"	1406-D1	No data	Groyne	1406+001	32,98	81,09	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	Stone material of groyne connection is visible. Newly built groyne.
44	It is not visible in "Cadastre"	1405-D2	No data	T-groyne	1405+691	93,24	79,77	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	T-groyne, stone material of groyne head and groyne connection are visible. Newly built groyne.
45	It is not visible in "Cadastre"	1405-D1	No data	T-groyne	1405+383	93,25	81,38	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	T-groyne, stone material of groyne head and groyne connection are visible. Newly built groyne.



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46		1396-D1	2/8	Revetment	1398+575 do 1396+740	1762,99	80,39	0	0	0	0	1967	Good	River bank erosion protection ongoing at low water levels.	Stone revetment above which is a stone river bank overgrown with plants and trees. A part of approx. 100 meters of the revetment has been washed away, no stone material is visible.
47	1395/1	1395-D1	2/8	Imported fill	1396+614 do 1395+959	531,47	80,88	12	0	0	0	1976	Satisfying	River bank protection from further erosion ongoing.	Stone material on bevel of the river bank is visible, as well as vegetation above the stone material. At downstream part of landfill, stone material on bevel is not visible.
48	1393/3	1393-D3	2/9	Parallel structure	1394+006 do 1393+640	389,24	80,38	2	0	0	0	1976	Excellent	Effect of material deposition ongoing (downstream).	Stone material of parallel structure is visible. A tree is present at junction of parallel and groyne 1393-D2.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
R.		River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S - upstream ** -*	Slope inclination s - downstrea m ** -	Cross- sectional area of river regulation infrastructur e **	Year of execution of works **	The condition of the river regulation infrastructur	Functionalit y of river regulation infrastructur e	Additional notes
4:	1393/2	1393-D2	2/9	Groyne	1393+691	72,97	80,09	2	1:1	1:1-5	0	1976	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne and the beginning of material deposition upstream and downstream of the groyne are visible. Downstream on the groyne, stone washout under the groyne crown is visible. Tree at the junction of the parallel 1393-D3 and the groyne is visible.
5	1393/1	1393-D1	2/9	Barrier	1393+117	262,05	79,2	2	1:1	1:2	17,80 21,00 12,60	1972	Bad	Barrier on backwater flow failed at low water level.	Stone material of barrier is visible on both river banks. Barrier has irregular geometry. In the middle of the flow, the barrier is opened.
5	1 1392/4	1392-D1	2/9	Revetment	1393+056 do 1392+961	141,42	82,25	0	0	0	0	1972	Bad	River bank erosion protection failed.	Revetment is collapsed and the geotextile beneath the stone material is visible.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" paqe</u> **	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S - upstream ** -*	Slope inclination s - downstrea m ** -	Cross- sectional area of river regulation infrastructur e ***	<u>Year of</u> <u>execution of</u> <u>works</u> <u>**</u>	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
52	1392/3	1391-D2	2/9	Revetment	1392+961 do 1391+991	704,65	83,23	0	0	0	0	1973	Good	River bank erosion protection ongoing at medium water levels.	Stone revetment. Above is a stone river bank overgrown with plants and trees. A rupture of revetment has been spotted in length around 20 meters.
53	1392/2	1391-D1	2/9	Parallel structure	1391+927 do 1391+716	278,02	81,96	0	0	0	0	1972	Excellent	Effect of material deposition ongoing (upstream, downstream).	Stone material of parallel structure on the bevel of the river bank is visible. Material deposition is spotted upstream and downstream of the parallel structure.
54	1387/1	1387-D1	2/10	Barrier	1387+827	26,06	80	10	1:1	1:1	40.0	1973	Good	Barrier on backwater flow finished at low water level.	Barrier is covered with dirt and vegetation. Stone material of barrier is not visible.



						RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER	:				
	R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> **	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S – upstream ** –	Slope inclination S - downstrea m ** -	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
•	55	1386/1	1384-D2	2/10	Revetment	1388+387 do 1384+468	4749,82	80,15	0	0	0	0	1974-1976	Good	River bank erosion protection ongoing at low water levels.	Revetment starts at 300 meters upstream from the barrier 1387-D1. It continues after the barrier 1387-D1. Stone material of revetment is visible. Above the stone material vegetation is present. Landslide of revetment has been spotted at two locations.
!	56	1384/1	1384-D1	2/10 2/11	Revetment	1384+468 do 1384+283	270,14	80,41	4,00 12,00	0	0	0	1974	Excellent	River bank erosion protection ongoing at low water levels.	Stone material of revetment is visible. Above is a stone river bank overgrown with plants and trees.
	57	1382/2	1382-D2	2/1	Groyne	1382+557	37,06	80,03	2,00+5,00	1:1	1:1.5	0	1973	Satisfying	Effect of material deposition ongoing.	Material deposit upstream and downstream of the groyne and stone material of groyne are visible.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
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58	1382/1	1382-D1	2/1	Parallel structure	1382+893 do 1382+209	919,15	80,04	2	-	-	0	1973	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Near the settlement of Aljmaš, stone material of parallel structure is visible. Material deposition is present in the back of the parallel structure. Material deposition and vegetation overgrowth is present on the river bank.
59	1381/1	1381-D1	2/1	T-groyne	1381+381	85,31	79,62	2	1:1 -	1:1.15 -	0	1974	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. Sand deposit upstream and downstream of the groyne.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER	?				
	t.b <u>River</u> r <u>regulation</u> infrastructu <u>e</u> mark(Cadas re mark) **	e mark	<u>"Cadastre</u> <u>" page</u> ** —	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S – upstream ** –	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
6	1380/2	1380-D2	2/1	T-groyne	1380+908	81,56	79,32	2	1:1	1:1.15 -	0	1974	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. The beginning of material deposition upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown is visible.
•	1380/3	1380-D1	2/1	Groyne	1380+357	49,94	78,03	0	0	0	0	1975-1978	Bad	Effect of material deposition failed.	Stone material of groyne is visible at low water levels upstream of the revetment 1379-D1.
€	1380/1	1379-D1	2/1	Revetment	1380+357 do 1379+983	361,37	80,68	0	0	0	The average width of existing revetment. Revetment 15,0-21,0 1380+300-1379+500	1979	Good	River bank erosion protection ongoing at medium water levels.	Stone revetment upstream and downstream of passenger wharf Aljmaš is present. Near the mentioned wharf there is a city-type revetment. Concrete stairs along the bevel of the revetment are present.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m ***	Slope inclination S - upstream ** -*	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur e **	<u>Year of</u> <u>execution of</u> <u>works</u> **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
63	1379/1	1377-D1	2/2	Revetment	1379+983 do 1377+528	2705,45	80,6	0	0	0	0	0	Bad/Satisfying	River bank erosion protection ongoing at medium water levels.	Stone material of revetment on the bevel is visible. It protects the river bank of the Aljmaš settlement.
64	1368/1	1368-D1	2/4	Groyne	1368+237	138,31	78,06	2	1:1 -	1:1.15 -	~42.00	1982	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne and the beginning of material deposition upstream and downstream of the groyne are visible.
65	1367/2	1367-D2	2/4	T-groyne	1367+663	83,84	78,68	0	0	0	0	1983	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. Material deposition upstream and downstream of the groyne is visible. Upstream on the groyne connection, stone washout under the groyne crown connection is visible.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER	?				
R.		River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m ***	Slope inclination s - upstream ** -*	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
6	5 1367/1	1367-D1	2/4	T-groyne	1367+218	90,26	78,4	2	1:1 -	1:1.15 -	~40.00	1982	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Collapsed part of the groyne head and material deposit upstream and downstream of the groyne are visible. Downstream and upstream on the groyne connection, stone washout under the groyne crown connection is visible.
6.	It is not visible in "Cadastre"	1366-D1	No data	Groyne	1366+496	72,26	77,05	No data	No data	No data	No data	No data	Bad	Effect of material deposition failed.	Stone material of groyne connection is visible. Sand deposit upstream of the groyne is present. Between the road and railway bridge near the settlement of Erdut.



					RIVER	REGULATION	INFRASTRUCT	TURES – RIGHT	BANK OF DA	ANUBE RIVER					
R.b r	<u>River</u> <u>regulation</u> <u>infrastructur</u> <u>e</u> <u>mark(Cadast</u> <u>re mark)</u> **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m ***	Slope inclination <u>s -</u> upstream ** -*	Slope inclination s - downstrea m ** -	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
68	1361/1	1360-D3	2/5	T-groyne	1360+958	81,71	78,59	2	1:1 -	1:1.15 -	0	1978-1981	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. The beginning of material deposition on the river bank downstream of the groyne, upstream still in the function of material deposition.
69	1360/2	1360-D2	2/5	T-groyne	1360+539	79,89	78,53	2	1:1	1:1.15 -	0	1978,1979,19 80	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne head and groyne connection are visible. The beginning of material deposition on the river bank upstream of the groyne, downstream deposed with sand.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER	?				
R.	b <u>River</u> regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> **	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S - upstream ** -*	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
70	1360/1	1360-D1	2/5	T-groyne	1360+130	81,88	79,18	2	1:1 -	1:1.15	0	1978,1979,19 80	Good	Effect of material deposition ongoing (upstream, downstream).	Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible. Tree at the junction of the groyne head and groyne connection is visible.
7	1359/2	1359-D1	2/5	T-groyne	1359+714	81,62	78,56	2	1:1	1:1.15	0	1978	Good	Effect of material deposition ongoing (upstream, downstream).	Material deposit upstream and downstream of the groyne is visible. Downstream on the groyne connection, stone washout under the groyne crown connection is visible.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> **	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m ***	Slope inclination S - upstream ** -*	Slope inclination s - downstrea m ** -	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
72		1351-D1	2/6 2/7	Revetment	1355+788 do 1351+922	3329,39	76,55 (toe elevation) 85,45 85,37(cadastr e)	1	0	0	0,50/m'	1957-1963	Satisfying	River bank erosion protection ongoing at high water levels in settlement Dalj. Upstream from the settlement river bank erosion protection ongoing at low water levels.	Revetment near the settlement of Dalj has steep bevel and irregular geometry, it is overgrown with vegetation and is city- type revetment. Downstream of the Dalj canal there is a stone revetment. Stone material is visible at low water levels and vegetation above it is visible. Last 500 m river bank erosion behind revetment present.
73	1348/1	1347-D2	2/8	Revetment	1349+617 do 1347+712	2202,23	76,56	1	0	0	0	1983	Satisfying	River bank erosion protection ongoing at low water levels.	Start of revetment is 800 meters upstream from the rkm 1349. Stone material of revetment is visible. Above is a stone river bank overgrown with plants and trees.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
R		River regulation infrastructur e mark	<u>"Cadastre</u> <u>" paqe</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S – upstream ** –	Slope inclination s – downstrea m **	Cross- sectional area of river regulation infrastructur e **	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
7	It is not visible in "Cadastre"	1347-D1	No data	Revetment	1347+405 do 1347+214	301,37	76,25	No data	No data	No data	No data	No data	Good	River bank erosion protection ongoing at low water levels.	Stone material of revetment is visible. It protects the bevel of the river bank at low water levels.
7	1338/1	1337-D1	2/10	Revetment	1340+795 do 1337+499	2545,59	76,05 78,97	NOŽ:0.30 BAN:0.50 VIJ:0.60	0	0	15.0-20.0	1974	Good	River bank protection from erosion ongoing at low and high water levels.	Stone revetment. It protects the river bank at low water levels. Downstream of the rkm 1338, city- type revetment protects the river bank from high water levels.
7	5 1336/1	1334-D1	2/10	Revetment	1337+499 do 1334+739	2937,32	84,6	0	0	0	0	0	Good	River bank erosion protection ongoing at high water levels.	City-type revetment of Borovo settlement. Concrete staircase on bevels. The vertical river bank on the columns of the operational plateau of the transshipme nt port of Vupik. The revetment of the port of Vukovar.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" paqe</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination s – upstream ** -*	Slope inclination s – downstrea m **	Cross- sectional area of river regulation infrastructur e **	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
77	1333/1	1333-D1	2/11	Revetment	1334+739 do 1333+113	998,31	83,4	0	0	0	0	1957 1957-1961 1962-1963	Excellent	River bank erosion protection ongoing at high water levels.	City-type revetment. It extends from the revetment 1334-D1 to the confluence of Vuka river and includes the revetment "Otok Športova".
78	1331/1	1330-D1	2/11	Revetment	1333+025 do 1330+932	3817,44	84,1	0	0	0	0	0	Excellent	River bank erosion protection ongoing at high water levels.	The revetment of passenger wharf of Vukovar. It is under construction in the area of the city of Vukovar, from rkm 1333 (confluence of Vuka river) to rkm 1331 (waste water treatment device).
79	1327/1	1328-D1	2/12	Revetment	1328+550 do 1328+415	180,05	79,9	1	0	0	20.0	0	Good	River bank erosion protection ongoing at medium water levels.	City-type revetment to crown elevation of 80.15 m.a.s.l. The revetment of passenger wharf of Vučedol.
80	It is not visible in "Cadastre"	1322-D2	No data	Parallel structure	1323+927 do 1322+971	1061,26	76,08	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	Newly built. Stone material of parallel structure and groyne are visible.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER					
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> **	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S – upstream ** –	Slope inclination S - downstrea m ** -	Cross- sectional area of river regulation infrastructur e **	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
81	It is not visible in "Cadastre"	1322-D1	No data	T-groyne	1322+450	90,04	77,01	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	Newly built. Stone material of groyne connection and groyne head is visible.
82	It is not visible in "Cadastre"	1321-D1	No data	T-groyne	1321+960	89,98	76,99	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	Newly built. Stone material of groyne connection and groyne head is visible.
83	It is not visible in "Cadastre"	1318-D1	No data	Revetment	1318+669 do 1318+577	118,34	75,35	No data	No data	No data	No data	No data	Bad	River bank erosion protection failed.	Stone material of the revetment is visible at low water levels.
84	It is not visible in "Cadastre"	1315-D1	No data	Barrier	1315+740	188,56	77,5	No data	No data	No data	No data	No data	Good	Barrier on backwater flow finished at low water level.	Barrier is not visible from the river side.
85	It is not visible in "Cadastre"	1309-D1	No data	Revetment	1313+676 do 1309+502	3993,84	74,95	No data	No data	No data	No data	No data	Satisfying	River bank erosion protection ongoing at low water levels.	Stone material of the revetment is visible at low water levels. Collapsed vegetation on the bevel.



					RIVER	REGULATION	INFRASTRUCT	URES – RIGHT	BANK OF DA	ANUBE RIVER	:				
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m **	Slope inclination S – upstream ** –	Slope inclination s - downstrea m ** -	Cross- sectional area of river regulation infrastructur	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
86	It is not visible in "Cadastre"	1307-D1	No data	Parallel structure	1309+502 do 1307+954	1646,34	76,34	No data	No data	No data	No data	No data	Good	Effect of material deposition ongoing (upstream, downstream).	Parallel structure continues on a revetment 1309-D1. Stone material of the parallel and two groynes vertical to it are visible. Material deposition on the river bank is spotted in the back of the parallel structure.
87	It is not visible in "Cadastre"	1305-D1	No data	Revetment	1305+896 do 1305+386	461,21	76,74 (toe elevation)	No data	No data	No data	No data	No data	Excellent	River bank erosion protection ongoing at high water levels.	City-type revetment of Šarengrad settlement.
88	It is not visible in "Cadastre"	1299-D1	No data	Parallel structure	1300+668 do 1299+105	1790,95	73,77	No data	No data	No data	No data	No data	Satisfying	Effect of material deposition ongoing (downstream).	Stone material of parallel structure is visible. Material deposition on the river bank is spotted in the back of the parallel structure. Parts of the stone material are collapsed and have irregular geometry.



STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

					RIVER	REGULATION	INFRASTRUCT	TURES – RIGHT	BANK OF D	ANUBE RIVER	?				
R.b r	River regulation infrastructur e mark(Cadast re mark) **	River regulation infrastructur e mark	<u>"Cadastre</u> <u>" page</u> <u>**</u>	Name and type of river regulation infrastructur e	Chainage of the river regulation infrastructur e rkm or from rkm to rkm	Length of the river regulation infrastructur e m	Crown elevetion of river regulation infrastructur e m.a.s.l.	Crown widht of river regulation infrastructur e m ***	Slope inclination <u>s -</u> upstream ** -*	Slope inclination S – downstrea m ** –	Cross- sectional area of river regulation infrastructur e ***	Year of execution of works **	The condition of the river regulation infrastructur e	Functionalit y of river regulation infrastructur e	Additional notes
89	1296/1	1295-D1	2/18	Revetment	1299+105 do 1295+350	3789,17	73,93 (toe elevation) 80,07 (crown elevation-wharf)	2	68	0	0.0	1976	Excellent/Goo d	River bank protection from erosion ongoing at low and high water levels. Effect of material deposition ongoing (downstream).	City-type revetment at the wharf of llok protects the river bank from the high waters. Downstream of the wharf, stone revetment and parallel structure are in function of river bank protection from the erosion during low water levels. Downstream of the bridge, vertical river bank is under construction.

**information from the "Cadastral Register Table



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

4.2 TABLE OVERVIEW OF RIVER REGULATION INFRASTRUCTURES – LEFT BANK

					RIVE	R REGULATION	I INFRASTRUC	TURES – LEFT	BANK OF DA	NUBE RIVER					
R.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	"Cadastre" page **	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m **	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure **	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
1	It is not visible in "Cadastre"	1298-L1	No data	Revetment	1299+648 do 1298+275	1426,43	76,34	No data	No data	No data	No data	No data	Bad	River bank erosion protection failed.	Stone revetment. River bank erosion behind revetment present. Revetment material visible at low water levels on the river side.
2	1432/12	1432-L1	2/1	Groyne	1432+529	55,33	79,70	2	1:1	1:1	0	1971	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne material and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure.
3	1430/12	1430-L4	2/1	Revetment	1432+360 do 1430+378	2152,14	82,76	0	0	0	0	1927-1934	Good	River bank erosion protection ongoing at low water levels.	Stone revetment. Revetment material visible. Above crown revetment vegetation and trees present. Approx 30 m of revetment material not visible.



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4	1430/11	1430-L3	2/1	Revetment	1430+349 do 1430+335	15,37	82,25	2	0	0	0	1971-1976	Good	River bank erosion protection ongoing at low water levels.	River bank ingrown with revetment. Effect of material deposition visible (upstream and downstream).
5	1430/00	1430-L2	2/1	T-groyne	1430+280	53,36	82,49	2	1:1	1:1.5	0	1971-1976	Good	Effect of material deposition ongoing (upstream, downstream).	Material on the groyne head and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure.
6	1429/12	1430-L1	2/1	T-groyne	1430+186	39,53	83,00	2	1:1	1:1.5	0	1971	Good	Effect of material deposition ongoing (upstream, downstream).	Material on the groyne head and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure.
7	1429/11	1429-L1	2/2	Revetment	1430+090 do 1429+516	539,78	82,03	0	0	0	0	1978	Good	River bank erosion protection ongoing at low water levels.	Stone revetment. Revetment material visible. Above crown revetment vegetation and trees present.
8	It is not visible in "Cadastre"	1299-L1	No data	Parallel structure	1300+116 do 1299+648	527,23	75,35	No data	No data	No data	No data	No data	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Material on the parallel structure visible. Crown elevation it is not in continuity.



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9	It is not visible in "Cadastre"	1300-L1	No data	Revetment	1300+805 do 1300+116	746,58	75,34	No data	No data	No data	No data	No data	Bad	River bank erosion protection failed.	Stone revetment. River bank erosion behind revetment present. Revetment material visible at low water levels on the river side.
10	1426/11	1425-L6	2/2	Revetment	1426+195 do 1425+712	524,55	85,53	0	0	0	0	0	Good	River bank erosion protection ongoing at medium water levels.	Slope revetment from stone and concrete stone. Concrete stairs along the slope revetment.
11	1425/15	1425-L5	2/2	Revetment	1425+712 do 1425+577	145,97	83,15	0	0	0	0	1961-1965	Good	River bank erosion protection ongoing at high water levels.	Part of slope revetment made from concrete stone, the rest of the slope is made of concrete blocks (city- type revetment). Concrete stairs along the slope revetment.
12	1425/14	1425-L4	2/2	Revetment	1425+577 do 1425+585	48,41	86,74	0	0	0	0	1961-1965	Excellent	River bank erosion protection ongoing at high water levels.	A vertical revetment in the form of a reinforced concrete wall. Entrance in river lock in Bezdan settlement.
13	1425/13	1425-L3	2/2	Revetment	1425+562 do 1425+443	154,36	81,49	0	0	0	0	1961-1965	Good	River bank erosion protection ongoing at high water levels.	Semicircular revetment. Revetment slope made of concrete blocks (city-type revetment).



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14	1425/12	1425-L2	2/2	Revetment	1425+423 do 1425+410	30,09	79,44	0	0	0	0	1961-1965	Good	River bank erosion protection ongoing at high water levels.	Revetment slope made of concrete blocks (city- type revetment).
15	1425/11	1425-L1	2/2	Revetment	1425+423 do 1424+959	451,65	81,79	2	0	0	0	1961-1965	Satisfying	River bank erosion protection ongoing at medium water levels.	Stone revetment. Vegetation present above the infrastructure. Continues to the revetment 1425-L2. Visible columns of the old docking place in bad condition.
16	1424/13	1424-L2	2/3	Revetment	1424+860 do 1424+662	155,90	79,34	0	0	0	0	0	Good	River bank erosion protection ongoing at low water levels.	Stone revetment. Vegetation present above the infrastructure. Visible material revetment.
17	1424/12	1424-L1	2/3	T-groyne	1424+662 do 1424+591	101,77	81,40	No data	No data	No data	No data	No data	Good	Effect of material deposition ongoing (upstream, downstream).	Material on the groyne head and effect of material deposition upstream and downstream visible, vegetation present on the beginning of the infrastructure. In continuity with revetment 1424-L2.
18	1424/11	1423-L1	2/3	T-groyne	1423+963	98,82	82,71	0	0	0	0	1901-1902	Bad	Effect of material deposition failed.	Material on the groyne head and groyne root visible. Separately groyne head from root.



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19	1422/13	1422-L2	2/3	T-groyne	1422+894	177,17	79,22	0	0	0	0	1891-1892	Bad	Effect of material deposition ongoing (upstream, downstream).	Groyne connection material not visible.
20	1422/12	1422-L1	2/3	T-groyne	1422+281	158,98	81,55	0	0	0	0	1901-1902	Bad	Effect of material deposition failed.	Groyne connection and head material visible. Irregular geometry of the groyne. Separately groyne head from connection.
21	1421/11	1420-L2	2/3	Revetment	1421+970 do 1420+529	1320,08	82,83	0	0	0	0	1905-1907 1935-1938	Good	River bank erosion protection ongoing at low water levels.	Stone revetment. Vegetation present above the infrastructure. Visible material revetment. The beginning of the revetment in continuity, after 200m part of the revetment is washed away, visible material behind.
22	1420/12	1420-L1	2/3	T-groyne	1420+281	51,95	81,48	2	1:1	1:1,50 -	0	1970-1971- 1972	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.



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23	1420/11	1419-L2	2/3	T-groyne	1419+990	53,21	81,64	2	1:1 -	1:1,50 -	0	1970-1971- 1972	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and effect of material deposition upstream and downstream visible.
24	1419/11	1419-L1	2/4	T-groyne	1419+612	91,96	81,60	2	1:1 -	1:1,50 -	0	1970-1971- 1972	Satisfying	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and significantly effect of material deposition upstream and downstream visible. Groyne head irregular geometry. Trees present on the groyne crown connection.
25	1415/11	1414-L1	2/4	Revetment	1416+109 do 1414+355	1804,23	79,02	0	0	0	0	1974-1976	Bad	River bank erosion protection failed.	Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind.
26	1410/11	1409-L1	2/6	Revetment	1410+058 do 1409+398	647,38	78,64	0	0	0	0	1909-1910	Bad	River bank erosion protection failed.	Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind.



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27	It is not visible in "Cadastre"	1305-L1	No data	Revetment	1308+282 do 1305+842	2249,99	75,39	No data	No data	No data	No data	No data	Bad	River bank erosion protection failed.	Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind from the river side.
28	1401/11	1401-L2	2/7	Revetment	1401+863 do 1401+619	351,28	78,40	1	0	0	0	1957-1960	Bad	River bank erosion protection failed.	Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind from the river side. There is no visible material on the side of the backwater near the port of Apatin.



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29	1403/11	1401-L1	2/7	Revetment	1403+7247 do 1401+340	2516,32	78,42 (toe elevation)	No data	No data	No data	No data	No data	Good (Bad, good, excellent)	Upstream river bank erosion protection failed. River bank erosion protection at shipyard Apatin ongoing. Downstream river bank erosion protection ongoing at high water levels.	Upstream of the Apatin barrier, the revetment is not visible from the water side. From the barrier to the vertical revetment of the Apatin shipyard, there are is no revetment material present. On the vertical revetment of the shipyard, visible deformation of the columns. At the Apatin passenger docking place, a city-type revetment in excellent condition. Along the downstream part of the revetment stone in concrete. A new city-type revetment near the Apatin marina. Downstream from the Apatin marina, a city-type revetment with irregular geometry and visible deformation.



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30	1400/11	1400-L3	2/7	Revetment	1401+340 do 1400+886	490,71	77,41	0	0	1:1,25 1:1	0	1912-1913	Good	River bank erosion protection ongoing at low water levels.	Stone revetment. Vegetation present above the infrastructure. Visible material revetment.
31	1400/12	1400-L2	2/7	Revetment	1400+456 do 1400+225	271,11	80,79	0	0	0	0	1912-1913	Bad	River bank erosion protection failed.	Stone revetment. Visible material revetment at low water levels. Part of the revetment is washed away, visible material behind.
32	1399/13	1400-L1	2/7	Parallel structure	1400+456	22,02	80,46	0	0	0	0	1912-1913	Bad	Effect of material deposition failed (upstream, downstream).	Irregular geometry of the structure. Partially effect of material deposition upstream and downstream visible. It is located upstream from revetment 1400-L2.
33	1399/11	1399-L1	2/8	Revetment	1399+658 do 1399+155	465,62	78,77	0	0	0	40	1979	Good	River bank erosion protection ongoing at low water levels.	Stone revetment. Vegetation present above the infrastructure. Visible material revetment.



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34	1398/12	1398-L2	2/8	Parallel structure	1399+155 do 1398+889	251,53	80,06	2	0	0	0	1979	Excellent	Effect of material deposition ongoing (downstream).	Continuing on the revetment 1399-L1. Parallel structure material visible. Vegetation present on the groyne crown.
35	1398/11	1398-L1	2/8	T-groyne	1398+518	138,45	80,12	2	0	0	0	1979-1983	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.
36	1397/12	1397-L2	2/8	T-groyne	1397+970	85,97	80,59	2,00	No data	No data	No data	No data	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. Fallen trees present on the groyne crown connection.



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37	1397/11	1397-L1	2/8	T-groyne	1397+362	91,82	80,34	2	0	0	0	1979-1983	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.
38	1396/12	1396-L1	2/8	T-groyne	1396+824	91,36	78,71	2	1:1 -	1:1,5 -	0	1976	Good	Effect of material deposition finished (upstream, downstream).	Groyne connection, head material and significantly effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.
39	1395/13	1395-L1	2/8 2/9	Revetment	1395+615 do 1395+288	384,67	78,20	0	0	0	0	1965-1967	Good	River bank erosion protection ongoing at low water levels.	Visible material revetment. Vegetation and trees present above the infrastructure.
40	1394/11	1394-L1	2/9	Revetment	1395+288 do 1394+480	806,21	78,22	1	0	0	0	1972-1973	Good	River bank erosion protection ongoing at low water levels.	Visible material revetment. Vegetation and trees present above the infrastructure.



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41	It is not visible in "Cadastre"	1308-L1	No data	Revetment	1309+840 do 1308+617	1468,76	75,55	No data	No data	No data	No data	No data	Good	River bank erosion protection ongoing at low water levels.	Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure.
42	1390/11	1388-L3	2/9 2/10	Revetment	1389+761 do 1388+890	1086,96	79,62	0	0	0	0	1898-1906	Good	River bank erosion protection ongoing at low water levels.	Begins at rkm 1390. Material of the structure and two groynes are visible g. Observed backfilling from the body of the building towards the shore. Effect of material deposition ongoing.
43	It is not visible in "Cadastre"	1315-L1	No data	Revetment	1318+381 do 1315+187	3561,75	75,81	No data	No data	No data	No data	No data	Bad	River bank erosion protection failed.	Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure.
44	1388/11	1388-L1	2/10	T-groyne	1388+376	82,18	80,20	2	0	0	0	1979-1983	Excellent	Effect of material deposition ongoing (upstream, downstream).	T-groyne, groyne connection, head material and effect of material deposition upstream and downstream visible.



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45	1387/12	1387-L2	2/10	T-groyne	1387+888	104,24	80,14	2	1:1	1:1:1.5	0	1977	Good	Effect of material deposition ongoing (upstream, downstream).	T-groyne, groyne connection, head material and effect of material deposition upstream and downstream visible. Vegetation present on the crown of the infrastructure.
46	It is not visible in "Cadastre"	1323-L1	No data	Revetment	1327+677 do 1323+925	3725,07	76,66	No data	No data	No data	No data	No data	Satisfying	River bank erosion protection ongoing at low water levels.	Revetment material visible at low water levels on the river side. River bank erosion behind revetment present. Vegetation present above the infrastructure.
47	1383/12 1383/11	1382-L2	2/11	Revetment	1383+971 do 1382+473	1309,07	78,10	No data	No data	No data	No data	No data	Bad	River bank erosion protection failed.	Stone revetment. River bank erosion behind revetment present. Visible material revetment at low water levels. Revetment in continuity.



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48	1382/11	1382-L1	2/1	Imported fill	1382+344 do 1382+148	187,67	83,18	15	0	0	0	1975-1976	Satisfying	Barrier on backwater flow failed at low water level.	Visible material revetment along the slope downstream. Vegetation above the revetment. On the upstream part of the infrastructure, revetment material is not visible.
49	1381/11	1381-L1	2/1	T-groyne	1381+241	82,61	79,67	2	1:1 -	1:1.15	0	1973-1974	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.
50	1380/12	1380-L2	2/1	T-groyne	1380+837	84,03	79,89	2	1:1 -	1:1.15 -	0	1974	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne connection and head material visible. Starting effect of material deposition upstream. Downstream effect of material deposition ipstream effect of material deposition finished.



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51	1380/11	1380-L1	2/2	T-groyne	1380+199	95,57	79,87	2	1:1	1:1.15	0	1976	Excellent	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.
52	1379/12	1379-L2	2/2	T-groyne	1379+588	119,68	79,74	2	1:1	1:1.15	0	1976	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection and head material visible. Visible deformation of the part of groyne head upstream. Starting effect of material deposition upstream. Downstream effect of material deposition ipstream deposition ipstream effect of material deposition finished.
53	1379/11	1379-L1	2/2	T-groyne	1379+058	53,27	79,67	2	1:1 -	1:1.15 -	0	1974	Satisfying	Effect of material deposition finished (upstream, downstream).	Groyne head material and effect of material deposition upstream and downstream visible. Trees present on the groyne crown connection.



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					RIVE	R REGULATION	N INFRASTRUC	TURES – LEFT	BANK OF DA	NUBE RIVER					
R.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	"Cadastre" page **	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m **	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure **	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
54	1375/11	1374-L1	2/3	Revetment	1374+911 do 1374+031	976,28	79,71	0	0	0	0	1910-1917 1963-1964	Bad	River bank erosion protection failed.	Stone revetment. River bank erosion behind revetment present. Visible material revetment at low water levels from the river side.
55	1373/10	1373-L2	2/3	Barrier	1373+269 do 1373+839	144,36	80,11	0	0	0	0	1910-1914	Bad	Barrier on backwater flow failed at low water level.	Barrier material visible. Irregular geometry of the structure. Downstream open barrier.
56	1372/11	1373-L1	2/3	Revetment	1373+137 do 1373+000	132,41	77,37	0	0	0	0	1910-1914	Satisfying	River bank erosion protection ongoing at medium water levels.	Stone revetment. Visible parts of material revetment upstream.
57	1367/11	1367-L1	2/4	Revetment	1368+135 do 1367+521	686,66	77,34	0	0	0	0	1937-1940	Bad	River bank erosion protection failed.	Stone revetment. River bank erosion behind revetment present. Visible material revetment at low water levels from the river side.



						RIVEI	R REGULATION	N INFRASTRUC	TURES – LEFT	BANK OF DA	NUBE RIVER					
R	l.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	"Cadastre" page **	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m ***	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure **	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
ţ	58	1366/12	1366-L1	2/4	Revetment	1367+510 do 1366+727	834,08	77,28	0	0	0	0	187-1893	Good	River bank erosion protection ongoing at high water levels.	Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure. Downstream on the revetment operational plateau of the Port of Dunav- Bogojevo.
•	59	1365/11	1362-L2	2/4	Revetment	1366+360 do 1361+862	4745,33	77,16	0	0	0	0	1893-1908	Bad	River bank erosion protection failed.	Stone revetment. Irregular geometries of the structure. At the settlement of Bogojevo, concrete stairs were built along the slope of the revetment. At the floodgate on the Danube-Tisa- Danube canal, the revetment material is from stone blocks. Downstream of the floodgate partially visible material and vegetation above the structure.



					RIVE	R REGULATION	N INFRASTRUC	TURES – LEFT	BANK OF DA	NUBE RIVER					
R.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	"Cadastre" page **	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m **	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure **	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
60	1361/12	1361-L1	2/5	T-groyne	1361+336	53,75	78,10	2	1:1 -	1:1.15	0	1978	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.
61	1361/11	1360-L1	2/5	T-groyne	1360+978	76,75	78,72	2	1:1	1:1.15	0	1978	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.



					RIVE	R REGULATION	N INFRASTRUC	TURES – LEFT	BANK OF DA	NUBE RIVER					
R.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	"Cadastre" page **	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m **	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
62	1358/13	1354-L1	2/6	Revetment i Parallel structure	1360+121 do 1354+950	5051,73	77,19	2	1:1.5	1:2	0	1981	Satisfying	River bank protection from erosion ongoing at low water levels. Effect of material deposition ongoing (upstream, downstream).	Stone revetment. Visible material revetment. Above the structure vegetation and trees are present. Downstream of rkm 1355, the revetment is in bad conditions, river bank protection failed at low water levels. Visible parallel structure material. In continuity with the revetment.
63	It is not visible in "Cadastre"	1349-L2	No data	T-groyne	1349+818	76,62	78,94	No data	No data	No data	No data	No data	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. On the groyne connection downstream visible lack of stone below groyne crown.



					RIVEI	R REGULATION	N INFRASTRUC	TURES – LEFT	BANK OF DA	NUBE RIVER					
R.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	<u>"Cadastre"</u> <u>page</u> <u>**</u>	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m **	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure ** -*	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
64	1349/12	1349-L1	2/8	T-groyne	1349+183	71,64	79,20	2	1:1 -	1:1.5 -	0	1983	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection, head material and starting effect of material deposition upstream and downstream visible. Vegetation present on the groyne crown connection.
65	1349/11	1348-L1	2/8	T-groyne	1348+577	86,19	79,05	2	1:1	1:1.5	0	1983	Good	Effect of material deposition ongoing (upstream, downstream).	Groyne connection and head material visible. Starting effect of material deposition upstream. Downstream effect of material deposition finished. Trees present on the groyne crown connection and head.
66	1342/11	1341-L1	2/9	Revetment	1345+622 do 1341+684	5170,32	77,31	0	0	0	0	1319-1923 1938-1939 1947	Excellent/Bad	River bank erosion protection ongoing at medium water levels upstream from rkm 1345. Downstream from rkm 1345 river bank erosion protection failed.	Upstream from rkm 1345, river bank erosion protection ongoing at medium water levels. Downstream from rkm 1345, the revetment is in bad condition, river bank erosion protection failed at low water levels.



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					RIVE	R REGULATION	N INFRASTRUC	CTURES – LEFT	BANK OF DA	ANUBE RIVER					
R.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	"Cadastre" page **	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m ***	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
67	It is not visible in "Cadastre"	1387-L1	No data	Revetment	1387+428 do 1387+353	78,55	77,96	No data	No data	No data	No data	No data	Good	River bank erosion protection ongoing at medium water levels.	Stone revetment. Visible material revetment. Vegetation and trees present above the infrastructure.
68	It is not visible in "Cadastre"	1388-L2	No data	T-groyne	1388+731	136,16	80,20	No data	No data	No data	No data	No data	Excellent	Effect of material deposition ongoing (upstream, downstream).	T-groyne, groyne connection, head material and effect of material deposition upstream and downstream visible.
69	It is not visible in "Cadastre"	1389-L1	No data	Parallel structure	1390+052 do 1389+761	427,78	78,73	No data	No data	No data	No data	No data	Good	River bank protection from erosion ongoing at low water levels.	Parallel structure material visible. Vegetation and trees present above the infrastructure. Starting downstream of the revetment 1388-L3.
70	It is not visible in "Cadastre"	1408-L1	No data	Revetment	1408+502 do 1408+198	291,88	78,50	No data	No data	No data	No data	No data	Bad	River bank erosion protection failed.	Revetment near the Vagoni settlement. On slopes visible stone, car tires and reinforced concrete stairs, irregular geometry structure.
71	It is not visible in "Cadastre"	1426-L1	No data	Groyne	1426+282	30,47	81,36	No data	No data	No data	No data	No data	Bad	Effect of material deposition ongoing (upstream, downstream).	Parts of groyne material and effect of material deposition upstream and downstream visible.



					RIVEI	R REGULATION	N INFRASTRUC	TURES – LEFT	BANK OF DA	NUBE RIVER					
R.b	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	<u>"Cadastre"</u> <u>page</u> <u>**</u>	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m ***	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure ** -*	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
72	It is not visible in "Cadastre"	1426-L2	No data	Parallel structure	1426+500 do 1426+449	55,62	82,03	No data	No data	No data	No data	No data	Bad	Effect of material deposition ongoing (upstream, downstream).	Parts of parallel structure material and effect of material deposition upstream and downstream visible.
73	in "Cadastre"	1432-L2	No data	Groyne	1432+748	33,58	79,81	No data	No data	No data	No data	No data	Satisfying	Effect of material deposition finished (upstream, downstream).	Groyne material and effect of material deposition upstream and downstream visible.
74	1297/13	1297-L3	2/18	T-groyne	1297+889	252,48	75,94	2	1:1 -	1:1.5 -	0	1976	Satisfying	Effect of material deposition finished (upstream, downstream).	Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition finished. Connected with groyne head 1297-L2.
75	1297/12	1297-L2	2/18	T-groyne	1297+477	356,02	76,06	2	1:1 -	1:1.5 -	0	1976	Satisfying	Effect of material deposition finished (upstream, downstream).	Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition finished. Connected with groyne head 1297-L3.



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STUDY

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

	RIVER REGULATION INFRASTRUCTURES – LEFT BANK OF DANUBE RIVER														
R.br	River regulation infrastructure mark(Cadastre mark) **	River regulation infrastructure mark	"Cadastre" page **	Name and type of river regulation infrastructure	Chainage of the river regulation infrastructure rkm or from rkm to rkm	Length of the river regulation infrastructure m	Crown elevetion of river regulation infrastructure m.a.s.l.	Crown widht of river regulation infrastructure m **	Slope inclinations - upstream **	Slope inclinations – downstream **	Cross- sectional area of river regulation infrastructure ** -*	Year of execution of works **	The condition of the river regulation infrastructure	Functionality of river regulation infrastructure	Additional notes
76	1297/11	1297-L1	2/18	T-groyne	1297+116	71,76	76,23	2	1:25 -	1:1.5 -	0	1976	Good	Effect of material deposition ongoing (downstream).	Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition ongoing.
77	1296/12	1296-L2	2/18	T-groyne	1296+796	27,64	76,05	2	1:25 -	1:1.5 -	0	1979	Good	Effect of material deposition ongoing (downstream).	Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition ongoing.
78	1296/11	1296-L1	2/18	T-groyne	1296+413	285,83	75,24	0	0	0	0	1979	Good	Effect of material deposition ongoing (downstream).	Groyne head material and vegetable on groyne crown visible. Downstream and upstream effect of material deposition ongoing.

**information from the "Cadastral Register Table



Project number:	I-2206/24
Main designer:	Igor Tadić, M.Sc.Eng.
Client:	Ministry of the Sea, Transport and Infrastructure

INVENTORY OF RIVER REGULATION INFRASTRUCTURE RELATED TO NAVIGATION

STUDY

5 GRAPHICAL ATTACHMENTS

- 1. Overview of the river regulation infrastructures on the Danube River from rkm 1424 from 1433
- 2. Overview of the river regulation infrastructures on the Danube River from rkm 1417 to 1424
- 3. Overview of the river regulation infrastructures on the Danube River from rkm 1409 to 1417
- 4. Overview of the river regulation infrastructures on the Danube River from rkm 1397 to 1409
- 5. Overview of the river regulation infrastructures on the Danube River from rkm 1391 to 1397
- 6. Overview of the river regulation infrastructures on the Danube River from rkm 1384 to 1391
- 7. Overview of the river regulation infrastructures on the Danube River from rkm 1378 to 1384
- 8. Overview of the river regulation infrastructures on the Danube River from rkm 1370 to 1378
- 9. Overview of the river regulation infrastructures on the Danube River from rkm 1358 to 1370
- Overview of the river regulation infrastructures on the Danube River from rkm 1346 to 1358
- 11. Overview of the river regulation infrastructures on the Danube River from rkm 1341 to 1346
- 12. Overview of the river regulation infrastructures on the Danube River from rkm 1331 to 1341
- 13. Overview of the river regulation infrastructures on the Danube River from rkm 1322 to 1331
- 14. Overview of the river regulation infrastructures on the Danube River from rkm 1315 to 1322
- 15. Overview of the river regulation infrastructures on the Danube River from rkm 1305 to 1315
- 16. Overview of the river regulation infrastructures on the Danube River from rkm 1295 to 1305