



This Project is funded  
by the European Union

# Supervision and Environmental Monitoring of River Training and Dredging Works on Critical Sectors on the Danube River

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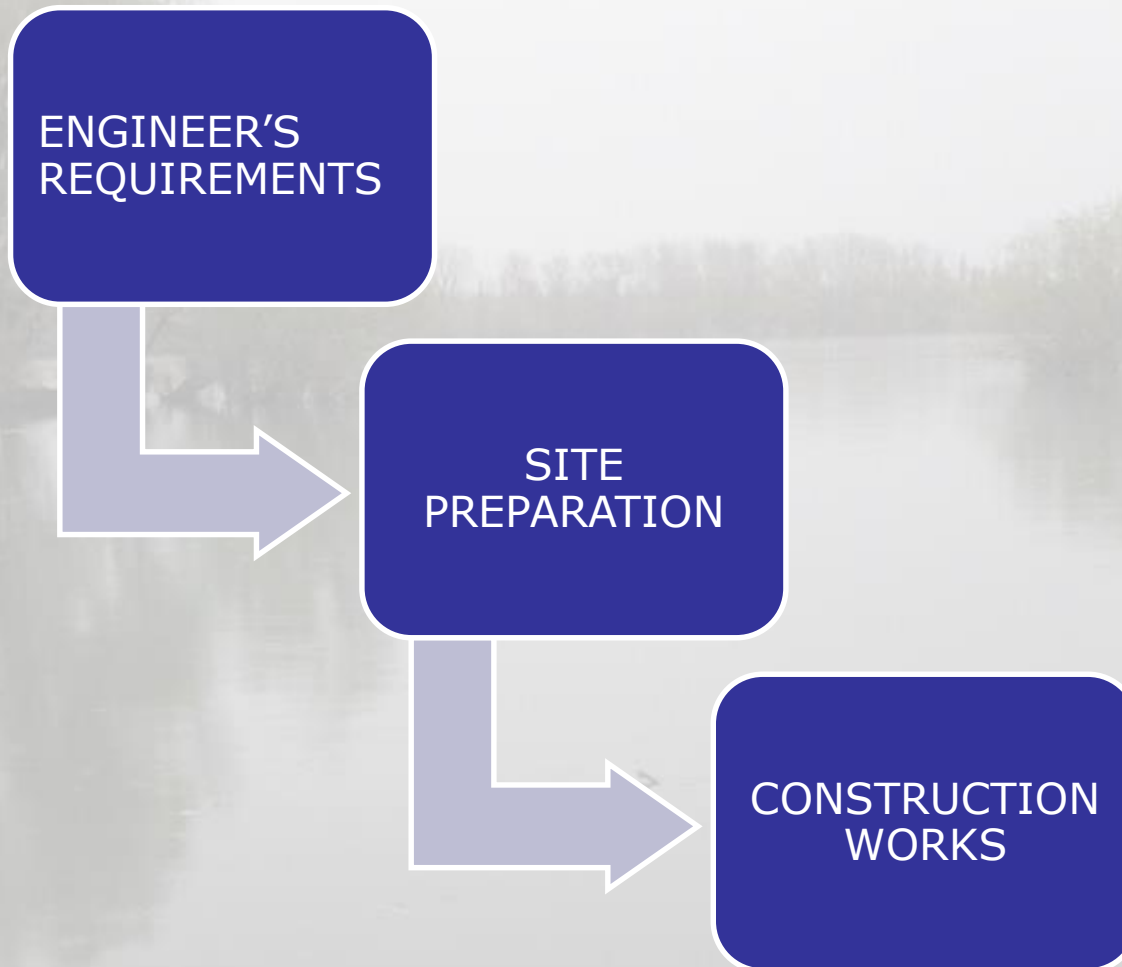
STAKEHOLDERS' FORUM, MEETING No.04 – 09th November 2018

**Republic of Serbia  
Ministry of Construction,  
Transport and Infrastructure**



- ☐ Review of the previous activities  
(from the beginning to SHFM03)
- ☐ Review of the activities from SHFM03 to SHFM04
- ☐ Review of the expecting activities  
(from SHFM04 to next three months)

### Project Implementation schedule



## Construction works



Nº	Name of critical sector	Type of works	Chainage from	to
18	Susek	Dredging A	1285+000	1283+950
		Dredging B	1282+650	1282+050
19	Futog	Dredging	1266+400	1265+000
19	<u>Futog</u>		1263+350	
	Detached groyne	1263+350	1262+700	
21	Arankina Ada	Dredging	1246+600	1245+300
22	Čortanovci	Dredging	1240+300	1239+350
		Sill nº 1	1237+700	
		Sill nº 2	1237+150	
		Sill nº 3a	1236+150	
		Sill nº 3b	1236+000	
23	Beška	Dredging	1229+600	1227+400
24	Preliv	Chrevon nº 1	1200+600	
		Chrevon nº 2	1199+800	

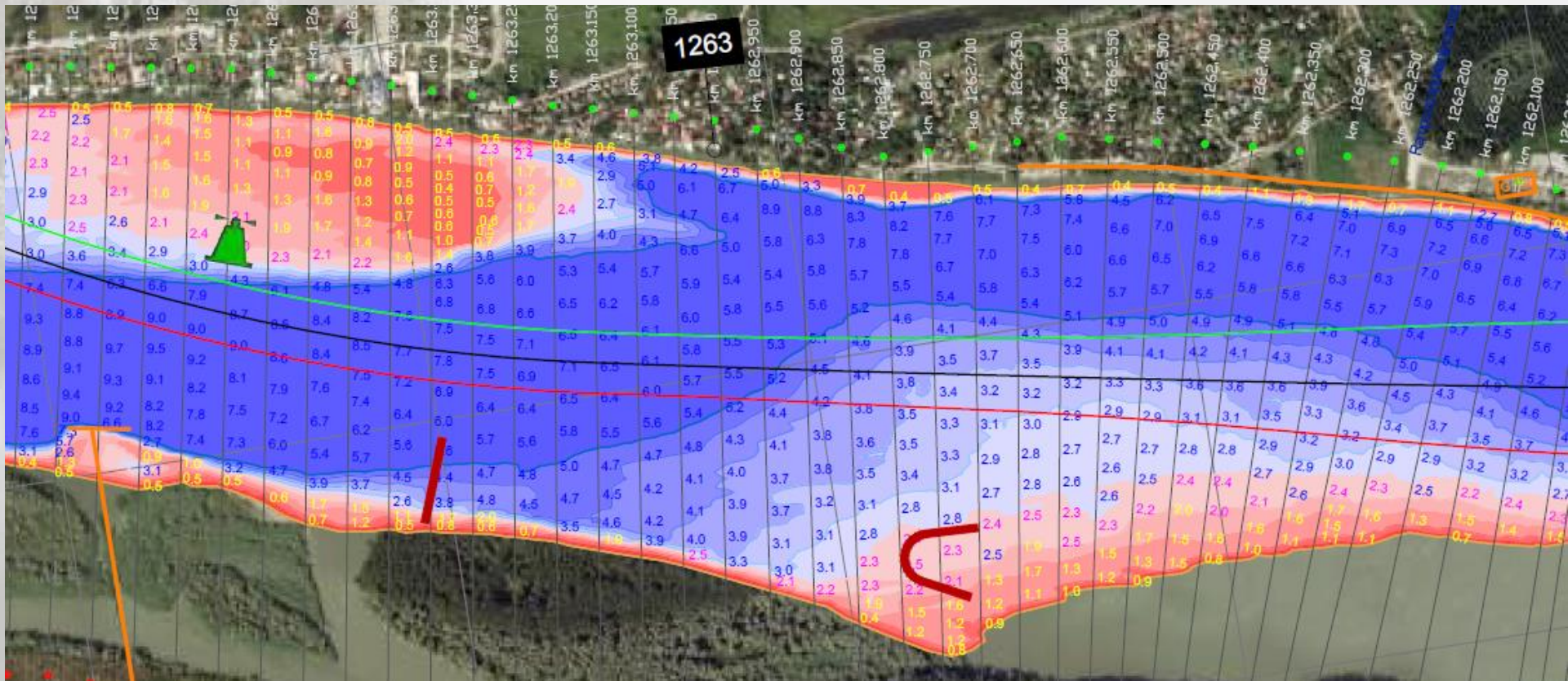


### ❑ Scope of the work (July – October)

- start the construction of Groyne, Sector 19.1
  - additional quantity of works (for both Sectors) – Var. 1
  - completion of geotextile layer
  - completion of the base layer (rock 6-15cm) process of controlling – ongoing
  
- start the construction of Chevron, Sector 19.2
  - new set of equipment for the construction
  - “0” status of the river bed
  - process of geotextile layer- ongoing

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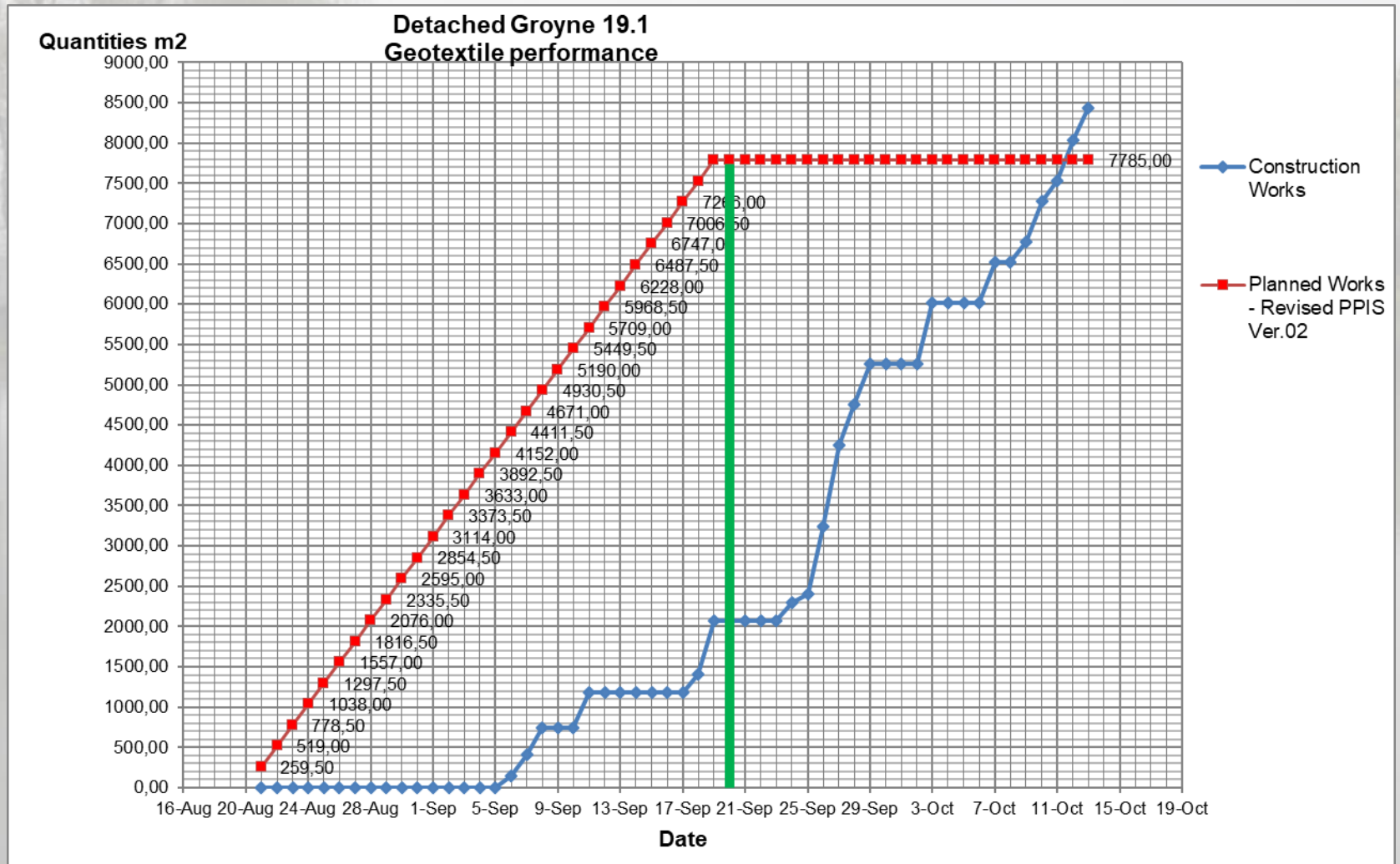
## □ Work Programme (approved in March 2018.)

46	<b>Construction works</b>	<b>75 days</b>	<b>Mon 16.7.18</b>	<b>Fri 28.9.18</b>	
47	<b>Detached groyne (19.1)</b>	<b>58 days</b>	<b>Mon 16.7.18</b>	<b>Tue 11.9.18</b>	
48	Placing geotextile	20 days	Mon 16.7.18	Sat 4.8.18	45;3
49	Construction of base layer	20 days	Mon 16.7.18	Sat 4.8.18	48SS
50	Profiling of base layer	2 days	Sun 5.8.18	Mon 6.8.18	49
51	Surveying of executed layers	2 days	Tue 7.8.18	Wed 8.8.18	50
52	Engineer's written permit for continuing of works	0 days	Wed 8.8.18	Wed 8.8.18	51
53	Construction of body	14 days	Thu 9.8.18	Wed 22.8.18	52
54	Profiling of body	11 days	Thu 23.8.18	Sun 2.9.18	53
55	Surveying of executed layers	2 days	Mon 3.9.18	Tue 4.9.18	54
56	Approval by the Engineer	7 days	Wed 5.9.18	Tue 11.9.18	55
57	<b>Chevron (19.2)</b>	<b>55 days</b>	<b>Sun 5.8.18</b>	<b>Fri 28.9.18</b>	
58	Placing geotextile	20 days	Sun 5.8.18	Fri 24.8.18	48
59	Construction of base layer	20 days	Sun 5.8.18	Fri 24.8.18	58SS
60	Profiling of base layer	4 days	Sat 25.8.18	Tue 28.8.18	59
61	Surveying of executed layers	2 days	Wed 29.8.18	Thu 30.8.18	60
62	Engineer's written permit for continuing of works	0 days	Thu 30.8.18	Thu 30.8.18	61
63	Construction of body	7 days	Fri 31.8.18	Thu 6.9.18	62
64	Profiling of body	13 days	Fri 7.9.18	Wed 19.9.18	63
65	Surveying of executed layers	2 days	Thu 20.9.18	Fri 21.9.18	64
66	Approval by the Engineer	7 days	Sat 22.9.18	Fri 28.9.18	65



## □ Work Programme: WP 2 (Ver. September)

53	Preparation works	8 days	Wed 22.8.18	Wed 29.8.18
54	<b>Construction works</b>	<b>115 days</b>	<b>Thu 30.8.18</b>	<b>Sun 23.12.18</b>
55	<b>Detached groyne (19.1)</b>	<b>84 days</b>	<b>Thu 30.8.18</b>	<b>Thu 22.11.18</b>
56	Placing geotextile	27 days	Thu 30.8.18	Tue 25.9.18
57	Construction of base layer	27 days	Thu 30.8.18	Tue 25.9.18
58	Profiling of base layer	5 days	Wed 26.9.18	Sun 30.9.18
59	Surveying of executed layers	2 days	Mon 1.10.18	Tue 2.10.18
60	Engineer's written permit for continuing of works	0 days	Tue 2.10.18	Tue 2.10.18
61	Construction of body	30 days	Wed 3.10.18	Thu 1.11.18
62	Profiling of body	11 days	Fri 2.11.18	Tue 13.11.18
63	Surveying of executed layers	2 days	Wed 14.11.18	Thu 15.11.18
64	Approval by the Engineer	7 days	Fri 16.11.18	Thu 22.11.18
65	<b>Chevron (19.2)</b>	<b>88 days</b>	<b>Wed 26.9.18</b>	<b>Sun 23.12.18</b>
66	Placing geotextile	35 days	Wed 26.9.18	Tue 30.10.18
67	Construction of base layer	35 days	Wed 26.9.18	Tue 30.10.18
68	Profiling of base layer	6 days	Wed 31.10.18	Mon 5.11.18
69	Surveying of executed layers	2 days	Tue 6.11.18	Wed 7.11.18
70	Engineer's written permit for continuing of works	0 days	Wed 7.11.18	Wed 7.11.18
71	Construction of body	23 days	Thu 8.11.18	Sat 1.12.18
72	Profiling of body	13 days	Sun 2.12.18	Fri 14.12.18
73	Surveying of executed layers	2 days	Sat 15.12.18	Sun 16.12.18
74	Approval by the Engineer	7 days	Mon 17.12.18	Sun 23.12.18



**Detached Groyne 19.1**  
**Base Layer performance**  
**-Crushed stone 6-15 cm**

**Quantities m3**

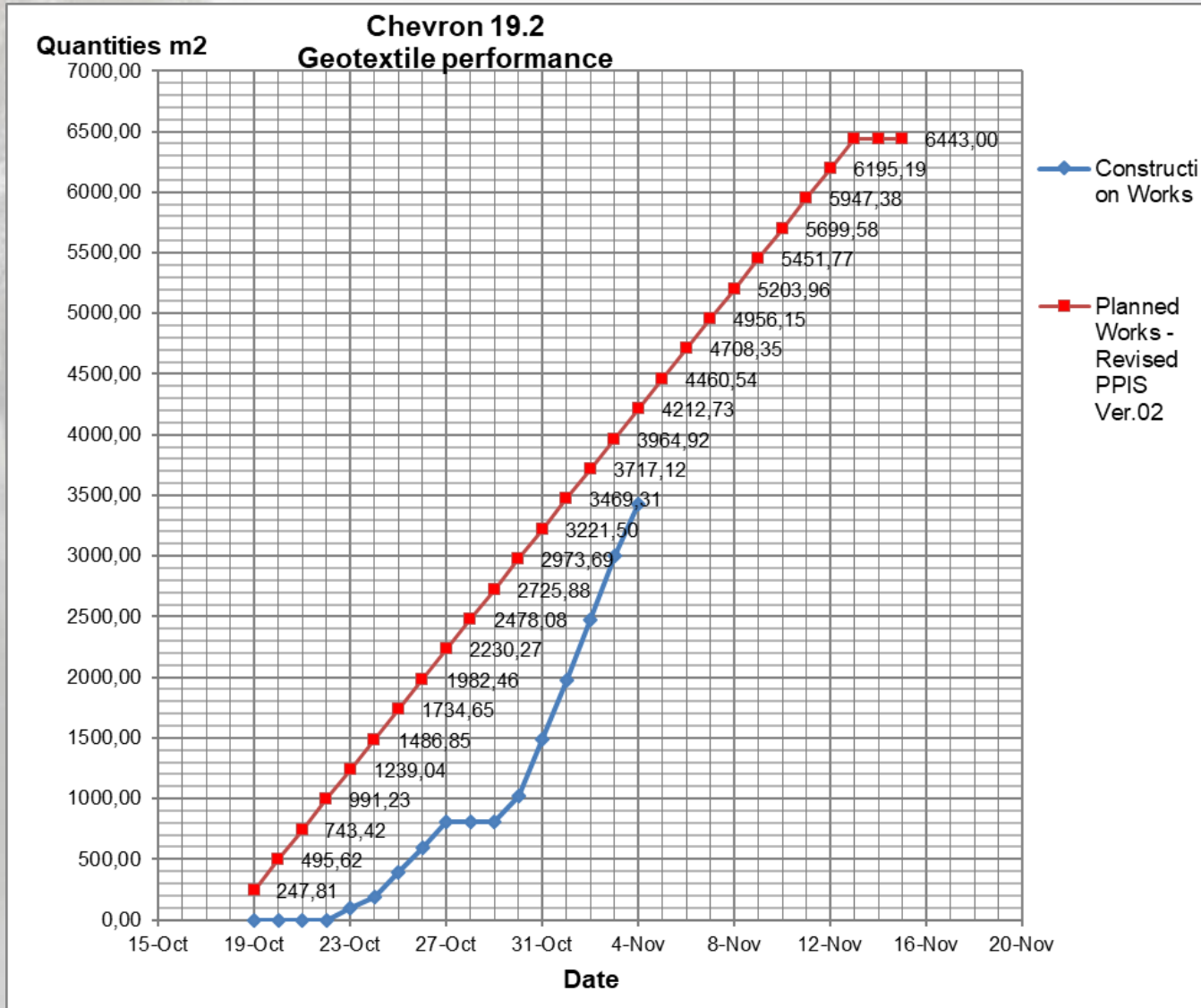
**Planned Works - Revised PPIS Ver.02**

**Construction Works**

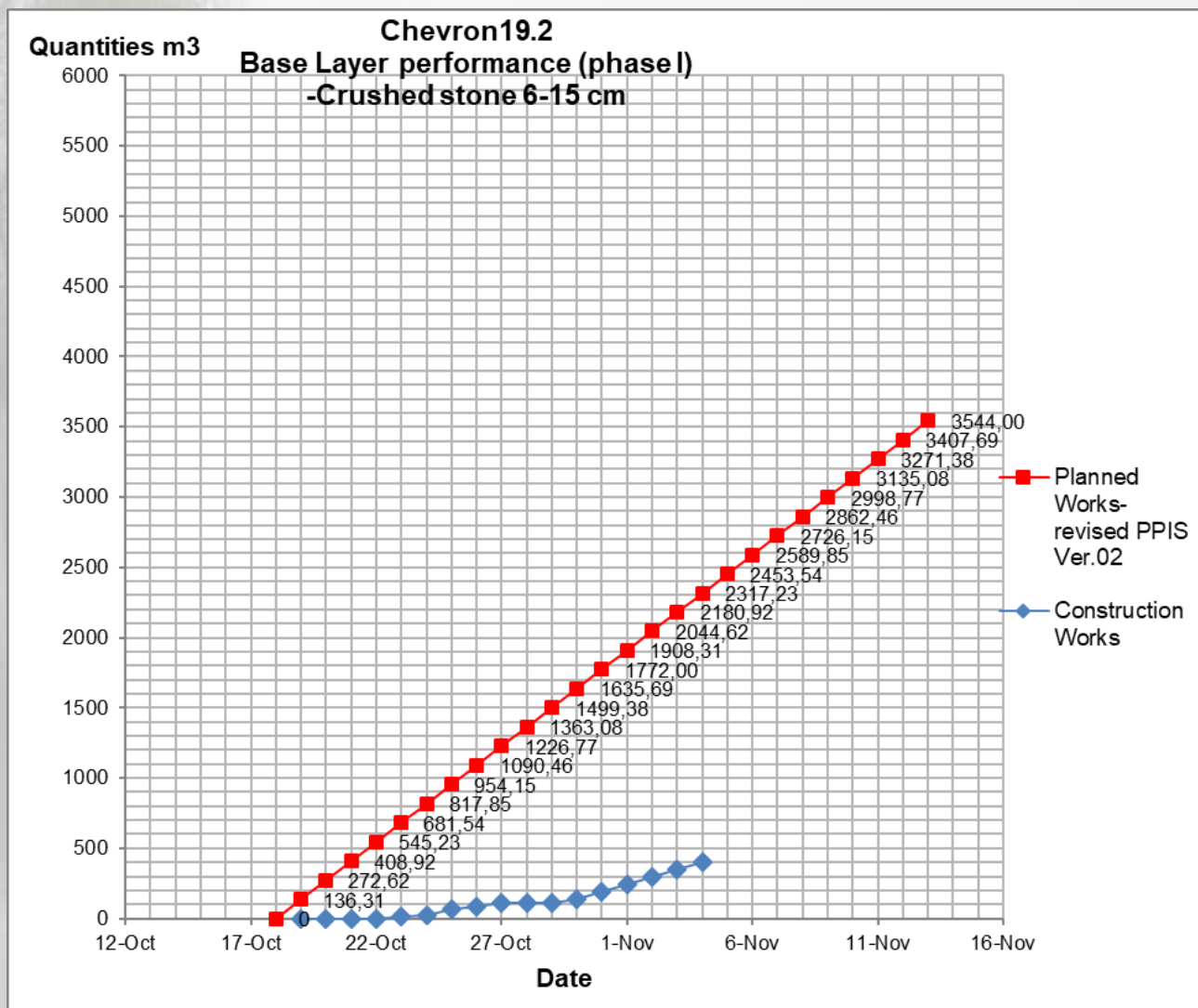
**Date**

Date	Planned Works (m3)	Construction Works (m3)
23-Aug	141,23	0
24-Aug	282,47	0
25-Aug	423,70	0
26-Aug	564,93	0
27-Aug	706,17	0
28-Aug	847,40	0
29-Aug	988,63	0
30-Aug	1129,87	0
31-Aug	1271,10	0
1-Sep	1412,33	0
2-Sep	1553,57	0
3-Sep	1694,80	0
4-Sep	1836,03	0
5-Sep	1977,27	0
6-Sep	2118,50	0
7-Sep	2259,73	0
8-Sep	2400,97	0
9-Sep	2542,20	0
10-Sep	2683,43	0
11-Sep	2824,67	0
12-Sep	2965,90	0
13-Sep	3107,13	0
14-Sep	3248,37	0
15-Sep	3389,60	0
16-Sep	3530,83	0
17-Sep	3672,07	0
18-Sep	3813,30	0
19-Sep	3954,53	0
20-Sep	4095,77	0
21-Sep	4237,00	0
22-Sep	4237,00	0
23-Sep	4237,00	0
24-Sep	4237,00	0
25-Sep	4237,00	0
26-Sep	4237,00	0
27-Sep	4237,00	0
28-Sep	4237,00	0
29-Sep	4237,00	0
30-Sep	4237,00	0
1-Oct	4237,00	1500
2-Oct	4237,00	1900
3-Oct	4237,00	2000
4-Oct	4237,00	2000
5-Oct	4237,00	2300
6-Oct	4237,00	2400
7-Oct	4237,00	2500
8-Oct	4237,00	2600
9-Oct	4237,00	2600
10-Oct	4237,00	2700
11-Oct	4237,00	2800
12-Oct	4237,00	3200
13-Oct	4237,00	3400

## Chevron, geotextil



## Chevron, rock





- ❑ Construction for geotextile installation





### Geotextile installation





- ❑ Rock base layer (6-15cm) above the geotextile



### ❑ S&EM

- ✓ 3º Stakeholders' Forum (21-09-2018)
  - Supervision of the works
  - Morphology control of the river bed - Chevron
  - Water and Sediment control
  - Biology control
- ✓ Interim Report nº 2 – submitted and approved

### ❑ WKSC

- ✓ Commencement of work was:
  - 21.08.2018. - Sector 19.1, Groyne – ongoing
  - 21.10.2018. – Sector 19.2, Chevron - ongoing
- ✓ IPC 1 submitted on 19.10.2018. value 960.000€
- ✓ IPC 2 in progress

## ❑ WP 3 (Ver. October) (approved October 2018.)

Preparation works	8 days	Wed 22.8.18	Wed 29.8.18	52
<b>Detached groyne (19.1)</b>	<b>136 days</b>	<b>Thu 30.8.18</b>	<b>Wed 16.1.19</b>	
Placing geotextile	45 days	Thu 30.8.18	Sat 13.10.18	52;3
Construction of base layer	56 days	Thu 30.8.18	Wed 24.10.18	
Profiling of base layer	5 days	Thu 25.10.18	Mon 29.10.18	56
Surveying of executed layers	2 days	Tue 30.10.18	Wed 31.10.18	57
Engineer's written permit for continuing of works	14 days	Thu 1.11.18	Thu 15.11.18	58
Construction of body	32 days	Fri 16.11.18	Mon 17.12.18	59
Profiling of body	11 days	Tue 18.12.18	Fri 28.12.18	60
Surveying of executed layers	2 days	Sat 29.12.18	Sun 30.12.18	61
Approval by the Engineer	14 days	Mon 31.12.18	Wed 16.1.19	62
<b>"Zero status" survey for chevron</b>	<b>9 days</b>	<b>Wed 26.9.18</b>	<b>Fri 5.10.18</b>	
Survey	3 days	Wed 26.9.18	Sat 29.9.18	66SF
Geodetic data processing	4 days	Sat 29.9.18	Wed 3.10.18	67SF
Preparation of drawings	1 day	Wed 3.10.18	Thu 4.10.18	68SF
Quantities calculation	1 day	Thu 4.10.18	Fri 5.10.18	69SF
Approval by the Engineer	14 days	Fri 5.10.18	Fri 19.10.18	70FF
Engineer's written permit for starting of works	0 days	Fri 19.10.18	Fri 19.10.18	72SF
<b>Chevron (19.2)</b>	<b>115 days</b>	<b>Fri 19.10.18</b>	<b>Thu 14.2.19</b>	
Placing geotextile	26 days	Fri 19.10.18	Wed 14.11.18	55FS+5 days
Construction of base layer (I phase)	26 days	Fri 19.10.18	Wed 14.11.18	72SS
Construction of base layer (II phase)	14 days	Thu 15.11.18	Wed 28.11.18	73
Profiling of base layer	7 days	Thu 29.11.18	Wed 5.12.18	74
Surveying of executed layers	2 days	Thu 6.12.18	Fri 7.12.18	75
Engineer's written permit for continuing of works	14 days	Sat 8.12.18	Fri 21.12.18	76
Construction of body	27 days	Tue 18.12.18	Wed 16.1.19	60



## ❑ WP 3 (Ver. October) (approved October 2018.)

<b>Structures on Sector 22</b>	<b>107 days</b>	<b>Thu 1.11.18</b>	<b>Thu 21.2.19</b>	
<b>Preliminary works</b>	<b>107 days</b>	<b>Thu 1.11.18</b>	<b>Thu 21.2.19</b>	
<b>Handover of bathymetric survey plan</b>	0 days	Thu 1.11.18	Thu 1.11.18	92SF-2 days
<b>"Zero status" survey for Sill (22.1)</b>	<b>20 days</b>	<b>Sat 3.11.18</b>	<b>Sat 24.11.18</b>	
Placing of benchmarks	2 days	Sat 3.11.18	Mon 5.11.18	93SF
Survey	6 days	Mon 5.11.18	Mon 12.11.18	94SF
Geodetic data processing	8 days	Mon 12.11.18	Tue 20.11.18	95SF
Preparation of drawings	2 days	Tue 20.11.18	Thu 22.11.18	96SF
Quantities calculation	2 days	Thu 22.11.18	Sat 24.11.18	97SF
<b>Approval by the Engineer</b>	14 days	Sat 24.11.18	Sat 8.12.18	98FF
<b>Engineer's written permit for starting of works</b>	0 days	Sat 8.12.18	Sat 8.12.18	100SF
<b>Sill (22.1)</b>	<b>59 days</b>	<b>Sat 8.12.18</b>	<b>Thu 7.2.19</b>	

- ✓ Engineer Requirements
- ✓ IPA “spot – check” by ER and FB (No.1 and No.2)
- ✓ “spot – check” by CFCU (No.1)
- ✓ IPC 1 completed (construction book approved by Engineer)
- ✓ MAC for the Rock Material - covered 10.000 t of the rocks (rock 6-15cm)
- ✓ MAC for Rock Material - covered 2.000 t of the rocks (rocks 15 – 45 cm)
- ✓ IPC 2 for work execution is in progress

## Future – expecting activities for the next three Months

- Completion of the 19.1 – Groyne
- Use Permit (Technical Revision) – activity by CA (10.1 PC)
- Taking Over
- Commencement of DNP on the 19.1
  
- Completion of the 19.2 – Chevron
- Preparation - Use Permit (Technical Revision)- activity by CA
- Taking Over
- Commencement of DNP on the 19.2
  
- Construction phase of the structure Sills (Čortanovci, Sector 22)
- + Preparation for Use Permit and TOC

- Survey of the river bed Futog (all the Sector) – following morphology aspect (riverbed changings)
- Commencement of the Chevron structure (Preliv, Sector 24), including a survey

### **Preparation for the Final decision about**

- **time extension/dredging activities and  
cost of the project**

*Thank you for your attention*

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