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Project: MONITORING THE ENVIRONMENTAL IMPACT OF THE WORKS REGARDING THE IMPROVING OF THE NAVIGATION CONDITIONS ON THE DANUBE RIVER BETWEEN CALARASI AND BRAILA, km 375-175

MONTHLY REPORT No 72: 1 - 30 April 2017

MONITORING THE ENVIRONMENTAL IMPACT OF THE WORKS REGARDING THE IMPROVING OF THE NAVIGATION CONDITIONS ON THE DANUBE RIVER BETWEEN CALARASI AND BRAILA, KM 375-175

MONTHLY REPORT NO. 72

01 - 30 April 2017



FINAL REPORT



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MONTHLY REPORT No 72: 1 - 30 April 2017

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1. INTRODUCTION

1.1. Brief presentation of monitored objectives

I. *This report presents the monitoring objectives for the period 01-30 April 2017.*

For post-construction phase the monitoring frequencies for the environmental components are presented in Table 1.1.

II. *3D numerical modeling*

During this period have been conducted activities for bathymetric data acquisition.

In addition to organizing and properly conducting the field campaigns, a permanent cooperation has been ensured between the Coordinator and Partners.



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Table 1.1. Post-construction phase - monitoring objectives - frequencies with differences in the Critical Points

MONITORING OBJECTIVES			Critical points								
			Main Critical Points			Secondary Critical Points					
			01	02	10	03A	03B	04A	04B	07	
A.	AIR		S	S	S	Q	Q	Q	Q	Q	
B.	NOISE		S	S	S	Q	Q	Q	Q	Q	
C.	SOIL		S	S	S	Q	Q	Q	Q	Q	
D.	HYDROMORPHOLOGY	Water level	C	C	C	Q	Q	Q	Q	Q	
		Water velocity	M	M	M	Q	Q	Q	Q	Q	
		Turbidity	C	C	C	Q	Q	Q	Q	Q	
		2D bathymetric elevation	M	M	M	Q	Q	Q	Q	Q	
		3D bathymetric elevation	Q	Q	Q	Not the case					
E.	WATER QUALITY		Q	Q	Q	S	S	S	S	S	
	SEDIMENTS		Q	Q	Q	S	S	S	S	S	
F.	AQUATIC FLORA		August			Q	Q	Q	Q	Q	
	AQUATIC FAUNA		Q	Q	Q	Q	Q	Q	Q	Q	
	F. is STURGEONS AND BARBELL	STURGEONS	Two seasons / year (February - May / August - December)			Two seasons / year (February - May / August - December)					
		BARBELL	One season/year April- May (breeding season)			One season/year April- May (breeding season)					
	F. i OTHER FISH SPECIES		Annually (April- May, July - September)			Annually (April- May, July - September)					
G.	TERRESTRIAL FLORA		Annually in July			Annually in July					
	TERRESTRIAL FAUNA/ AVIFAUNĂ		Annually (April - June, September - October, January)			Annually (April - June, September - October, January)					
H.	NATURA 2000 SITES	SCI	ICHTYOFAUNA	Annually (April- May, July - September)			Annually (April- May, July - September)				
			AQUATIC FLORA	July			Q	Q	Q	Q	Q
			AQUATIC FAUNA	Q	Q	Q	Q	Q	Q	Q	Q
			TERRESTRIAL FLORA	Annually in July			Annually in July				
		TERRESTRIAL FAUNA	Annually (April - June, September - October, January)			Annually (April - June, September - October, January)					
	SPA	AVIFAUNĂ	Annually (April - June, September - October, January)			Annually (April - June, September - October, January)					
J.	3D numerical modeling		M								

NOTĂ: QC - quasi continuous M- monthly Q - quarterly S - semester C - continuous

1.2. Overview

The elements related to the sampling periods for the objectives monitored in April 2017 for post-construction period are presented in Table 1.2.

Table 1.2. Objectives monitored during the period of 01.04-30.04.2017

Objectives monitored		Sampling period / ongoing activities	Campaign	Critical Points							
				Main Critical Points			Secondary Critical Points				
				01	02	10	03A	03B	04A	04B	07
A.	AIR	-	-	NO	NO	NO	NO	NO	NO	NO	NO
B.	NOISE	-	-	NO	NO	NO	NO	NO	NO	NO	NO
C.	SOIL	-	-	NO	NO	NO	NO	NO	NO	NO	NO
D.	HYDROMORPHOLOGY	03-06, 10-13, 19-20.04.2017	C69	YES	YES	YES	NO	NO	NO	NO	NO
E.	WATER QUALITY	-	-	NO	NO	NO	NO	NO	NO	NO	NO
	SEDIMENTS	-	-	NO	NO	NO	NO	NO	NO	NO	NO
F.	AQUATIC FLORA	-	-	NO	NO	NO	NO	NO	NO	NO	NO
	AQUATIC FAUNA	-	-	NO	NO	NO	NO	NO	NO	NO	NO
	F.is. STURGEONS	03, 04, 05, 10, 11.04.2017	C30	YES	YES	YES	YES	YES	YES	YES	YES
	F.is. BARBELL	-	-	NO	NO	NO	NO	NO	NO	NO	NO
	F.i. OTHER FISH SPECIES	-	-	NO	NO	NO	NO	NO	NO	NO	NO
G.	TERRESTRIAL FLORA	-	-	NO	NO	NO	NO	NO	NO	NO	NO
	TERRESTRIAL FAUNA/ AVIFAUNĂ	03-07, 10-14, 18-19.04.2017	Avifauna monitoring	YES	YES	YES	YES	YES	YES	YES	YES
H.	NATURA 2000 SITES	20, 21, 24.04.2017	Avifauna monitoring	YES	YES	YES	YES	YES	YES	YES	YES
I.	BUILDING SITE	-	-	NO	NO	NO	NO	NO	NO	NO	NO

NOTE:

YES - samples were taken / activities were conducted in the field

NO - no samples taken / no activities conducted in the field



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Means of transportation used for sampling/conducting activities and samples analysis are presented in Table 1.3.

Table 1.3 Means of transportation

Field	Transportation means
WATER	trimaran type boat with 25 CP engine
	Laguna type boat with 25 CP engine
	Lotus type boat with 20 CP engine
	Boat - autolaboratory - with trailer - RANIERI CLF22 model, Suzuki engine, 175 CP
	Boat ANA 5.0 with trailer, Suzuki engine, 40 CP
	Boat ANA 5.5 with trailer, Suzuki engine, 70 CP
LAND	Autolaboratory - Pickup jeep Toyota Hilux Double Cab 4x4
	Autolaboratory - Jeep Toyota LandCruiser
	Autolaboratory for air monitoring
	Autolaboratory for water and soil monitoring



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2. STATE OF THE PROGRESS ACTIVITIES

2.1. State and progress on each activity / critical point on specific monitoring objectives

The equipments used for sampling/ongoing activities and samples analysis are presented in table 2.1.

Table 2.1 Main devices

Objectives monitored		Sampling equipment	Laboratory equipments / ongoing activities
A.	AIR	<ul style="list-style-type: none"> - LECKEL dust sampler - Auto-laboratory - Desaga pump - GPS - Autolaboratory for air monitoring 	<ul style="list-style-type: none"> - Analytical balance KERN 770-14 - Atomic absorption spectrometer with graphite furnace AAS - UNICAM 939
B.	NOISE	<ul style="list-style-type: none"> - Sound Level Meter and Microphone, Brüel & Kjær Denmark - GPS 	
C.	SOIL	<ul style="list-style-type: none"> - Burkle sampler - GPS 	<ul style="list-style-type: none"> - ION-CROMATOGRAPH DIONEX ICS 1500 - anions, cations - Multi N/C Analytic Jena (total carbon analyzer and organic carbon) - Spectrometer ATI UNICAM UV-VIS - Mass Spectrometer with inductively coupled plasma ICPMS Nexlon 350x equipped with hydrides generator system and autosampler system with autodiluter
D.	HYDROMORPHOLOGY	<ul style="list-style-type: none"> - Portable Turbidimeter type VELP SCIENTIFICA - mini ADP SONTEK - Monitoring systems for turbidity and level - Monitoring systems for flow - velocities - Portable Turbidimeter HANNA Instruments - ADCP SONTEK River Surveyor R9 - Multiparameter YSI for turbidity and level measurements - Bathimetric System 3D - Kongsberg GeoSwath Plus Compact, 250 kHz - Acoustic Doppler Current Profiler (ADCP) - Teledyne RD Instruments RiverRay - ROV (Remote Operate Vehicle) - ROVBUILDER Mini 600 - GPS 	<ul style="list-style-type: none"> - Turbidimeter HACH RATIO/RX - Device for water quality parameters measurements, type 1, Manta 2-Sub3.5+Amphibian 2 - Device for water quality parameters measurements, type 2, Manta 2-Sub4.0+Amphibian 2
E.	WATER QUALITY	<ul style="list-style-type: none"> - Ruttner sampler - GPS 	<ul style="list-style-type: none"> - Spectrometer with atomic absorbtion VARIAN - Spectrometer CARY BIO 300 U.V.-VIS - Spectrofotometer with atomic absorbtion - with flame, graphite oven, hydrides system with amalgamation and automatic system for solids CONTRAA - Automatic analyzer in continous segmented flux model SAN++ - Mineralization system Speedwave Four with microwave
	SEDIMENTS	<ul style="list-style-type: none"> - Petersen sampler - GPS 	<ul style="list-style-type: none"> - Cryo - drying system ALPHA 2-4 LSCplus - Gas chromatograph coupled with mass spectrometer for dioxine screening, CPF, CPB and pesticides, with autosampler r-GC MS MS 15-02 - Drying stove - Sieving system for sediment samples - Ethos - digester with microwave for sediments - GC-MS-VARIAN - Spectrometer with atomic absorbtion SOLAAR M5 - Mineralization System Speedwave Four with microwave



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Objectives monitored		Sampling equipment	Laboratory equipments / ongoing activities
F.	AQUATIC FLORA	<ul style="list-style-type: none"> - planktonic nets - Patalas sampler - dredges 20cmx50 cm - Square wooden frame, with surface of 1m² - GPS 	<ul style="list-style-type: none"> - reverse microscope ZEISS - OPTIKA B-600T microscope - KRUSS microscope - Canon A570 IS camera for microscope
	AQUATIC FAUNA	<ul style="list-style-type: none"> - zooplanktonic nets - zoobenthic nets - Petersen sampler - benthos grabbing dredges - benthos sampling probe - GPS 	<ul style="list-style-type: none"> - Stereomicroscope Olympus - Binocular Zeiss - Microscope ZEISS - Canon A570 IS camera for microscope - magnifying glass
	F.is. STURGEONS AND BARBELL	<ul style="list-style-type: none"> - Fixed monitoring system DKTB - Floating monitoring system type DKMR-01T - Complex monitoring, alarming and control system type DK-PRB-01U - Monitoring system with ultrasonic transmitter type 40 - Monitoring system with ultrasonic transmitter type 60 - Mobile receiver for sturgeons' telemetry Vemco VR 100 - GPS 	<ul style="list-style-type: none"> - Reception station of WR2W - VR100 mobile receptor - Multiparameter YSI - Endoscope for sturgeon gender determining WELLD WED 3000V - Radar Lowrance Elite 9 CHIRP - 4 pieces
	F.i. OTHER FISH SPECIES	<ul style="list-style-type: none"> - High power electrical fishing device Hans Grassl EL 65 II GI - Low power electrical fishing device Hans Grassl EL 60 II HI - Ihtyometer - Electronic scale - GPS - binocular microscope - stereo microscope 	
G.	TERRESTRIAL FLORA	Binoculars, GPS, notebook, standard forms, camera	
	TERRESTRIAL FAUNA/ AVIFAUNĂ	Binocular, lunette, camera, GPS	
H.	NATURA 2000 SITES	Binocular, lunette, camera, GPS	
I.	BULDING SITE ACTIVITY	<ul style="list-style-type: none"> - DESAGA pump - Autolaboratory - Sound Level Meter and Microphone, Brüel & Kjær - dust sampler LECKEL 	

2.1.1 Critical Point 01 monitoring, Bala branch area and Caragheorghe sand strip

2.1.1.A. Air quality monitoring

The activities carried out during 01/30.04.2017 related to air quality monitoring for each critical point are presented in Table 2.1.1.A.1.

Table 2.1.1.A.1 Specific objective: air quality monitoring

No.	Activities
1.	Contribution to Monthly Report 72
2.	Contribution to Interim Report 16

According to post-construction monitoring objectives, in April 2017 for air quality monitoring in this main critical point CP 01 is not provided a sampling campaign according to Table 1.2. In post-construction period (in this main critical point CP01 have been made the reception of the construction work) frequency is biannual (as Table 1.1).

2.1.1.B. Noise monitoring

The activities carried out during 01/30.04.2017 related to noise level monitoring, for each critical point are summarized in Table 2.1.1.B.1.

Table 2.1.1.B.1. Specific objective: noise monitoring

No.	Activities
1.	Contribution to Monthly Report 72
2.	Contribution to Interim Report 16

According to post-construction monitoring objectives, in April 2017 for noise level monitoring in this main critical point CP 01 is not provided a measurements campaign as presented in Table 1.2. In post-construction period (in this main critical point CP01 have been made the reception of the construction work) frequency is biannual (as Table 1.1).

2.1.1.C. Soil quality monitoring

In this period have not been made sampling for soil in this critical point.

2.1.1.D. Hydromorphological monitoring

The activities from this reporting period are synthetically presented in Table 2.1.1.D.1:

Overall 3 main activities have been carried out:

- Single-beam bathymetric measurements of high resolution;
- Flow and velocity measurements on the monitoring sections;
- Turbidity and level continuous measurements in the 5 automatic hydrometric stations have continued.

Table 2.1.1.D.1. Specific objective: hydromorphological monitoring

No.	Activities
1.	Single-beam bathymetric measurements of high resolution
2.	Flow and velocity measurements on the monitoring sections
3.	Turbidity and level continuous measurements in the 5 automatic hydrometric stations

2.1.1.E. Water and sediments monitoring

The activities carried out during 01/30.04.2017, related to water and sediments quality monitoring, in this critical point are summarized in Table 2.1.1.E.1.

Table 2.1.1.E.1. Specific objective: water and sediments quality monitoring

No.	Activities
1.	Physical-chemical laboratory analysis for water samples collected in March 2017 (C63)
2.	Physical-chemical laboratory analysis for sediment samples collected in March 2017 (C63)

In this sampling campaign were not been collected water and sediment samples.

2.1.1.F. Aquatic flora and fauna monitoring

The activities carried out during this reporting period, regarding aquatic flora and fauna (except for ichthyofauna), are summarized in Table 2.1.1.F.1.

Table 2.1.1.F.1 Specific objective: aquatic flora and fauna monitoring

No.	Activities
1.	Laboratory analysis for aquatic macroinvertebrates samples collected in 17.03.2017 campaign
2.	Preliminary processing and analysis for obtained results

2.1.1.F.is. Sturgeons and barbell migration monitoring

In April, no scientific fishing activities have been carried out on sturgeon species due to the blockage produced by ANPA, in issuing of the authorization allowing this activity.

Thus, the research team continued to monitor the sturgeons' migration tagged in previous campaigns. Between km 43 on Borcea branch and bottom sill area on Bala branch, the researchers monitored almost daily the sturgeons' behavior with VR100 mobile device and measurements were made to determine bathymetry, velocities and water flow rates in certain key areas determined by the behavior of sturgeons (resting areas, possible breeding habitats, bottom sill area) in order to correlate these parameters with the type of behavior shown by sturgeons.

2.1.1.F.i. Other fish species monitoring

The scientific fishing authorization for other species category except for sturgeons was obtained on 28.04.2017 and thus mackerel fishing was postponed for May.

2.1.1.G. Terrestrial flora and fauna monitoring

2.1.1.G.1 Terrestrial flora

During this period have not been made monitoring activities for terrestrial flora.

2.1.1.G.2 Terrestrial fauna/ Avifauna

Activities conducted during this reporting period, regarding avifauna monitoring, are summarized in Table 2.1.1.G.2.1.

Table. 2.1.1.G.2.1 Specific objective: Avifauna monitoring

No.	Activities
1.	Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.1.H. Natura 2000 sites monitoring

In this reporting period were monitored Natura 2000 sites in critical point area.

Activities conducted during this reporting period, regarding the monitoring of Natura 2000 sites, are summarized in Table 2.1.1.H.1.

Table. 2.1.1.H.1 Specific objective: Natura 2000 sites monitoring

No.	Activities
1.	Assessment for avifauna in Natura 2000 sites in CP01: <ul style="list-style-type: none">- ROSPA0039 "Dunăre Ostroave"; ROSCI0022 "Canaralele Dunării" Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.1.I. Working site activities monitoring and intervention plan compliance in case of accidental pollution

According to post-construction monitoring objectives are not necessary monitoring activities for the construction site.

2.1.2. Critical Point 02 monitoring, Epurașu Island area (Lebăda)

2.1.2.A. Air quality monitoring

The activities carried out during 01/30.04.2017 related to air quality monitoring in this critical point are those presented in Table 2.1.1.A.1.

According to post-construction monitoring objectives, in April 2017 for air quality monitoring in this main critical point CP02 is not provided a sampling campaign according to Table 1.2. In post-construction period (in this main critical point CP02 have been made the reception of the construction work) frequency is biannual (as Table 1.1).

2.1.2.B. Noise monitoring

The activities carried out in reporting period, regarding noise level monitoring, in this critical point are those presented in Table 2.1.1.B.1.

According to post-construction monitoring objectives, in April 2017 for noise level monitoring in this main critical point CP 02 is not provided a measurements campaign according to Table 1.2. In post-construction period (in this main critical point CP02 have been made the reception of the construction work) frequency is biannual (as Table 1.1).

2.1.2.C. Soil quality monitoring

In this period have not been made any soil sampling.

2.1.2.D. Hydromorphological monitoring

The activities from this reporting period are synthetically presented in Table 2.1.2.D.1:

Overall 3 main activities have been carried out:

- Single-beam bathymetric measurements of high resolution;
- Flow and velocity measurements on the monitoring sections;
- Turbidity and level continuous measurements in the 2 automatic hydrometric stations have continued.

Table 2.1.2.D.1. Specific objective: hydromorphological monitoring

No.	Activities
1.	Single-beam bathymetric measurements of high resolution
2.	Flow and velocity measurements on the monitoring sections
3.	Turbidity and level continuous measurements in the 2 automatic hydrometric stations

In April 2017, were mainly made ADCP measurements (flow rates/velocities) as presented in Specifications. Results will be presented in Interim Report for this month.

2.1.2.E. Water and sediments monitoring

Activities performed during the reporting period, regarding water and sediment quality monitoring, reported to this critical point are those presented in Table 2.1.1.E.1.

In this period have not been made sampling activities for water and sediments.

2.1.2.F. Aquatic flora and fauna monitoring

Activities performed during this reporting period, regarding aquatic flora and fauna (except for ichthyofauna), are summarized in Table 2.1.2.F.1.

Table 2.1.2.F.1. Specific objective: aquatic flora and fauna monitoring

No.	Activities
1.	Laboratory analysis for aquatic macroinvertebrates samples collected in 17.03.2017 campaign
2.	Preliminary processing and analysis for obtained results

2.1.2.F.is. Sturgeons and barbell migration monitoring

In April 2017, monitoring for sturgeons' migration have been made with the monitoring systems existent in this area.

2.1.2.F.i. Other fish species monitoring

The scientific fishing authorization for other species category except for sturgeons was obtained on 28.04.2017 and thus mackerel fishing was postponed for May.

2.1.2.G. Terrestrial flora and fauna monitoring

2.1.2.G.1 Terrestrial flora

In this period have not been made monitoring activities for terrestrial flora.

2.1.2.G.2 Terrestrial fauna/ Avifauna

Activities conducted during this reporting period, regarding avifauna monitoring, are presented in Table 2.1.2.G.2.1.

Table. 2.1.2.G.2.1 Specific objective: Avifauna monitoring

No.	Activities
1.	Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.2.H. Natura 2000 sites monitoring

In this reporting period were monitored Natura 2000 sites in critical point and adjacent lakes areas.

Activities conducted during this reporting period, regarding Natura 2000 sites monitoring, are summarized in Table 2.1.2.H.1.

Table. 2.1.2.H.1 Specific objective: Monitoring of Natura 2000 sites

No.	Activities
1.	Avifauna assessments in Natura 2000 sites: <ul style="list-style-type: none">- ROSPA0039 "Dunăre Ostroave" - in CP02 area- ROSCI0022 "Canaralele Dunării" in CP02 area- In zona PC02-04:<ul style="list-style-type: none">o ROSPA0007 „Balta Vederoasa” - in Balta Vederoasa and Baciului lake areaso ROSCI0071 „Dumbrăveni - Valea Urluia - Lacul Vederoasa” - in Baciului lake and Balta Vederoasa areaso ROSPA0054 „Lacul Dunăreni” in Dunăreni lake areao ROSPA0056 „Lacul Oltina” - in Oltina and Iortmac lakes areaso ROSCI0172 „Pădurea and Valea Canaraua Fetii - Iortmac” - in Dunăreni, Iortmac and Oltina lakes areas Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data



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2.1.2.I. Work site activities monitoring and intervention plan compliance in case of accidental pollution

Due to completion of hydrotechnical construction, has not been necessary the construction site activity monitoring. Works reception have been made in November 26th, 2015.

2.1.3. Critical point 10 monitoring, Caleia Branch (Ostrovu Lupu)

2.1.3.A. Air quality monitoring

The activities carried out during 01/30.04.2017, regarding air quality monitoring, in this critical point are those presented in Table 2.1.1.A.1.

For critical point CP 10, in April 2017 have not been conducted any monitoring activities regarding air quality, being a post-construction period (in this main critical point CP10 have been made the reception of the construction work) frequency is biannual (as Table 1.1).

2.1.3.B. Noise monitoring

The activities carried out during reporting period, related to noise level monitoring, reported for this critical point are those presented in Table 2.1.1.B.1.

For critical point CP 10, in April 2017 have not been conducted any activities for noise level monitoring, being a post-construction period (in this main critical point CP10 have been made the reception of the construction work) frequency is biannual (as Table 1.1).

2.1.3.C. Soil quality monitoring

In this period have not been made sampling activities for soil.

2.1.3.D. Hydrophological monitoring

The activities from this reporting period are synthetically presented in Table 2.1.3.D.1:

Overall 3 main activities have been carried out:

- Single-beam bathymetric measurements for sections profiling;
- Flow and velocity measurements on the monitoring sections;
- Turbidity and level continuous measurements in the 3 automatic hydrometric stations have continued.

Table 2.1.3.D.1. Specific objective: hydromorphological monitoring

No.	Activities
1.	Single-beam bathymetric measurements for sections profiling
2.	Flow and velocity measurements on the monitoring sections
3.	Turbidity and level continuous measurements in the 3 automatic hydrometric stations

2.1.3.E. Water and sediments quality monitoring

The activities carried out during 01/30.04.2017 related to water and sediments quality in this critical point are those presented in Table 2.1.1.E.1.

In this period have not been made sampling activities for water and sediments.

2.1.3.F. Aquatic flora and fauna monitoring

The activities carried out during reporting period, regarding aquatic fauna and flora (except for ichtyofauna), are summarized in Table 2.1.3.F.1.

Table 2.1.3.F.1 Specific objective: aquatic flora and fauna monitoring

No.	Activities
1.	Laboratory analysis for aquatic macroinvertebrates samples collected in 17.03.2017 campaign
2.	Preliminary processing and analysis for obtained results

2.1.3.F.is. Sturgeons and barbell migration monitoring

In April, monitoring for sturgeons' migration have been made with the monitoring systems existent in this area.

2.1.3.F.i. Other fish species monitoring

The scientific fishing authorization for other species category except for sturgeons was obtained on 28.04.2017 and thus mackerel fishing was postponed for May.

2.1.3.G. Terrestrial flora and fauna monitoring

2.1.3.G.1 Terrestrial flora

In this period have not been made monitoring activities for terrestrial flora.

2.1.3.G.2 Terrestrial fauna/ Avifauna

Activities conducted during this reporting period, regarding avifauna monitoring, are summarized in Table 2.1.3.G.2.1.

Table. 2.1.3.G.2.1 Specific objective: Avifauna monitoring

No.	Activities
1.	Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.3.H. Natura 2000 sites monitoring

In this reporting period were monitored Natura 2000 sites in critical point and adjacent lakes areas.

Activities conducted during this reporting period, regarding Natura 2000 sites monitoring, are summarized in Table 2.1.3.H.1.

Table. 2.1.3.H.1 Specific objective: Monitoring of Natura 2000 sites

No.	Activities
1.	Avifauna assessments in Natura 2000 sites, CP10 area: <ul style="list-style-type: none">- ROSPA0005 „Balta Mică a Brăilei”; ROSCI0006 „Balta Mică a Brăilei”- ROSCI0307 „Lacul Sărat - Brăila” - in Sărat lake area Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.3.I. Work site activities monitoring and intervention plan compliance in case of accidental pollution

Due to completion of hydrotechnical works has not been necessary the building site activity monitoring. Works reception was carried out on August 1st, 2014.

2.1.4. Monitoring in the critical points 03÷07

2.1.4.1. Monitoring in CP 03 (upstream and downstream Seica)

2.1.4.1.A. Air quality monitoring

The activities carried out during 01/30.04.2017, related to air quality monitoring, reported for this secondary critical points are those presented in Table 2.1.4.1.A.1.



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Table 2.1.4.1.A.1. Specific objective: air quality monitoring

No.	Activities
1.	Contribution to Monthly Report 72
2.	Contribution to Interim Report 16

During 01/30.04.2017, have not been made any activities for air quality monitoring, in this secondary critical points (CP 03A and CP 03B).

2.1.4.1.B. Noise level monitoring

The activities carried out during 01/30.04.2017, related to noise level monitoring, in this secondary critical points are those presented in Table 2.1.4.1.B.1.

Table 2.1.4.1.B.1. Specific objective: noise monitoring

No.	Activities
1.	Contribution to Monthly Report 72
2.	Contribution to Interim Report 16

During 01/30.04.2017 have not been made any monitoring activities for noise level monitoring in this secondary critical points (CP 03A and CP 03B).

2.1.4.1.C. Soil quality monitoring

The activities carried out during 01/30.04.2017, related to soil quality monitoring, in this critical point are summarized in Table 2.1.4.1.C.1.

Table 2.1.4.1.C.1. Specific objective: soil monitoring

No.	Activities
1.	Performing physical-chemical laboratory analysis for the soil samples collected in March 2017 (C25)

In this period have not been made sampling activities for soil in this critical point.

2.1.4.1.D. Hydromorphological monitoring

No activities regarding hydromorphological monitoring during this period.

2.1.4.1.E. Water and sediments quality monitoring

The activities carried out during reporting period, regarding water and sediments quality, related to this critical point are those presented in Table 2.1.1.E.1.

In this period have not been made sampling activities for water and sediments.

2.1.4.1.F. Aquatic flora and fauna monitoring

The activities carried out during reporting period, regarding aquatic fauna and flora (except for ichtyofauna), are summarized in Table 2.1.4.1.F.1.

Table 2.1.4.1.F.1. Specific objective: aquatic flora and fauna monitoring

No.	Activities
1.	Laboratory analysis for aquatic macroinvertebrates samples collected in 17.03.2017 campaign
2.	Preliminary processing and analysis for the obtained results

2.1.4.1.F.is. Sturgeons and barbell migration monitoring

In April sturgeons' migration monitoring has been done with the monitoring systems existent on Danube sector between km 248 and km 348.

2.1.4.1.F.i. Other fish species monitoring

The scientific fishing authorization for other species category except for sturgeons was obtained on 28.04.2017 and thus mackerel fishing was postponed for May.

2.1.4.1.G. Terrestrial flora and fauna monitoring

2.1.4.1.G.1 Terrestrial flora

In this period have not been made monitoring activities for terrestrial flora.

2.1.4.1.G.2 Terrestrial fauna / Avifauna

The activities carried out during reporting period, regarding avifauna monitoring, are summarized in Table 2.1.4.1.G.2.1.

Table. 2.1.4.1.G.2.1 Specific objective: Avifauna monitoring

No.	Activities
1.	Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.4.1.H. Natura 2000 sites monitoring

In this reporting period were monitored Natura 2000 sites, in critical points and adjacent lakes areas.

The activities carried out during reporting period, regarding Natura 2000 sites monitoring, monitoring, are summarized in Table 2.1.4.1.H.1.

Table. 2.1.4.1.H.1 Specific objective: Monitoring of Natura 2000 sites

No.	Activities
1.	<p>Avifauna assessments in Natura 2000 sites:</p> <ul style="list-style-type: none"> - ROSPA0039 “Dunăre Ostroave” - in CP03 area - ROSCI0022 “Canaralele Dunării” in CP03 area - In zona PC02-04: <ul style="list-style-type: none"> o ROSPA0007 „Balta Vederoasa” - in Balta Vederoasa and Baciului lake areas o ROSCI0071 „Dumbrăveni - Valea Urluia - Lacul Vederoasa” - in Baciului lake and Balta Vederoasa areas o ROSPA0054 „Lacul Dunăreni” in Dunăreni lake area o ROSPA0056 „Lacul Oltina” - in Oltina and Iortmac lakes areas o ROSCI0172 „Pădurea and Valea Canaraua Fetii - Iortmac” - in Dunăreni, Iortmac and Oltina lakes areas <p>Activities in field:</p> <ul style="list-style-type: none"> - avifauna observations from the shore - census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.4.1.I. Work site activities monitoring and intervention plan compliance in case of accidental pollution

Because the hydrotechnical works have not started, was not necessary the monitoring of construction site activity.

2.1.4.2. Monitoring in CP 04 /Ceacâru/Fermecatu

2.1.4.2.A. Air quality monitoring

The activities carried out during 01/30.04.2017, regarding air quality monitoring, in this secondary critical points are those presented in Table 2.1.4.1.A.1.

In this period, have not been made any activities for air quality monitoring, in this secondary critical points (CP 04A and CP 04B).

2.1.4.2.B. Noise level monitoring

The activities carried out during 01/30.04.2017, regarding noise level monitoring, in this secondary critical points are those presented in Table 2.1.4.1.B.1.

In this period, have not been made any activities for noise monitoring, in this secondary critical points (CP 04A and CP 04B).

2.1.4.2.C. Soil quality monitoring

The activities carried out during reporting period regarding soil quality monitoring in this critical point are summarized in Table 2.1.4.1.C.1.

In this period have not been made sampling activities for soil.



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2.1.4.2.D. Hydromorphological monitoring

No activities regarding hydromorphological monitoring during this period.

2.1.4.2.E. Water and sediments quality monitoring

The activities carried out during reporting period, regarding water and sediments quality, related to this critical point are those presented in Table 2.1.1.E.1.

In this period have not been made sampling activities for water and sediments.

2.1.4.2.F. Aquatic flora and fauna monitoring

The activities carried out during reporting period, regarding aquatic fauna and flora (except for ichthyofauna) are summarized in Table 2.1.4.2.F.1.

Table 2.1.4.2.F.1. Specific objective: aquatic flora and fauna monitoring

No.	Activities
1.	Laboratory analysis for aquatic macroinvertebrates samples collected in 17.03.2017 campaign
2.	Preliminary processing and analysis for the obtained results

2.1.4.2.F.is. Sturgeons and barbell migration monitoring

In April sturgeons' migration monitoring has been done with the monitoring systems existent on Danube sector between km 248 and km 348.

2.1.4.2.F.i. Other fish species monitoring

The scientific fishing authorization for other species category except for sturgeons was obtained on 28.04.2017 and thus mackerel fishing was postponed for May.

2.1.4.2.G. Terrestrial flora and fauna monitoring

2.1.4.2.G.1 Terrestrial flora

During this period have not been made monitoring activities for terrestrial flora.

2.1.4.2.G.2 Terrestrial fauna/Avifauna

Activities conducted during this reporting period regarding avifauna monitoring are summarized in Table 2.1.4.2.G.2.1.

Table. 2.1.4.2.G.2.1 Specific objective: Avifauna monitoring

No.	Activities
1.	Activities in field: <ul style="list-style-type: none"> - avifauna observations from the shore - census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)

No.	Activities
2.	Analysis and processing of the field data

2.1.4.2.H. Natura 2000 monitoring sites

In this reporting period were monitored Natura 2000 sites in critical point and adjacent lakes areas.

Activities conducted during this reporting period, regarding Natura 2000 sites monitoring, monitoring, are summarized in Table 2.1.4.2.H.1.

Table. 2.1.4.2.H.1 Specific objective: Natura 2000 sites monitoring

No.	Activities
1.	<p>Avifauna assessments in Natura 2000 sites:</p> <ul style="list-style-type: none"> - ROSPA0039 "Dunăre Ostroave" - in CP04 area - ROSCI0022 "Canaralele Dunării" in CP04 area - In zona PC02-04: <ul style="list-style-type: none"> o ROSPA0007 „Balta Vederoasa” - in Balta Vederoasa and Baciului lake areas o ROSCI0071 „Dumbrăveni - Valea Urluia - Lacul Vederoasa” - in Baciului lake and Balta Vederoasa areas o ROSPA0054 „Lacul Dunăreni” in Dunăreni lake area o ROSPA0056 „Lacul Oltina” - in Oltina and Iortmac lakes areas o ROSCI0172 „Pădurea and Valea Canaraua Fetii - Iortmac” - in Dunăreni, Iortmac and Oltina lakes areas <p>Activities in field:</p> <ul style="list-style-type: none"> - avifauna observations from the shore - census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.4.2.I. Monitoring the building site activities and the compliance with the intervention plan in case of accidental pollution

The monitoring of the construction site was not necessary because the hydrotechnical works have not been started.

2.1.4.3. Monitoring in CP 07 / Fasolele

2.1.4.3.A. Air quality monitoring

The activities carried out during 01/30.04.2017, regarding air quality monitoring, for this secondary critical point are those presented in Table 2.1.4.1.A.1.

In this period, have not been made any activities for air quality monitoring, in this secondary critical point.

2.1.4.3.B. Noise level monitoring

The activities carried out during 01/30.04.2017, regarding noise level monitoring, in this secondary critical point are those presented in Table 2.1.4.1.B.1.



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In this period, have not been made any activities for noise monitoring, in this secondary critical point.

2.1.4.3.C. Soil quality monitoring

Activities performed during reporting period, regarding soil quality monitoring, in this critical point, were summarized in Table 2.1.1.C.1.

In this period have not been made sampling activities for soil.

2.1.4.3.D. Hydromorphological monitoring

No activities regarding hydromorphological monitoring during this period.

2.1.4.3.E. Water and sediments quality monitoring

Activities performed during reporting period, regarding water and sediments quality, related to this critical point are those presented in Table 2.1.1.E.1.

In this period have not been made sampling activities for water and sediments.

2.1.4.3.F. Aquatic flora and fauna monitoring

The activities carried out during reporting period, regarding aquatic fauna and flora (except for ichtyofauna) are summarized in Table 2.1.4.3.F.1.

Table. 2.1.4.3.F.1. Specific objective: aquatic flora and fauna monitoring

No.	Activities
1.	Laboratory analysis for aquatic macroinvertebrates samples collected in 17.03.2017 campaign
2.	Preliminary processing and analysis for the obtained results

2.1.4.3.F.is. Sturgeons and barbell migration monitoring

In April sturgeons' migration monitoring has been done with the monitoring systems existent on Danube sector between km 248 and km 348.

2.1.4.3.F.i. Other fish species monitoring

The scientific fishing authorization for other species category except for sturgeons was obtained on 28.04.2017 and thus mackerel fishing was postponed for May.

2.1.4.3.G. Terrestrial flora and fauna monitoring

2.1.4.3.G.1 Terrestrial flora

During this period have not been made activities for terrestrial flora monitoring.

2.1.4.3.G.2 Terrestrial fauna / Avifauna

Activities conducted during this reporting period, regarding avifauna monitoring, are summarized in Table 2.1.4.3.G.2.1.

Table. 2.1.4.3.G.2.1 Specific objective: Avifauna monitoring

No.	Activities
1.	Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.4.3.H. Natura 2000 sites monitoring

In this reporting period were monitored Natura 2000 sites in critical point area.

Activities conducted during this reporting period, regarding Natura 2000 sites monitoring, are summarized in Table 2.1.4.3.H.1.

Table. 2.1.4.3.H.1 Specific objective: Monitoring of Natura 2000 sites

No.	Activities
1.	Avifauna assessment in Natura 2000 sites in CP07 area: <ul style="list-style-type: none">- ROSPA0039 "Dunăre Ostroave"; ROSCI0022 "Canaralele Dunării" Activities in field: <ul style="list-style-type: none">- avifauna observations from the shore- census of nesting avifauna - assessments on linear trails (transects) and observation points (point count)
2.	Analysis and processing of the field data

2.1.4.3.I. Work site activities monitoring and intervention compliance plan in case of accidental pollution

Because the hydrotechnical works not started, was not necessary the construction site monitoring.

2.2. Stage of 3D numerical modeling

In April 2017, INCDPM specialists have performed, according to Specifications, bathymetric data acquisition in main critical points CP01, CP02 and CP10 areas. Thus, for this activity have been performed:

- bathymetric measurements for morphology and for sections profiling;
- bathymetric measurements for velocity and flow rates;
- longitudinal bathymetric measurements for bottom sill geometry determination.



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3. MEMBERS OF THE EXPERTS TEAM

3.1. Members of the experts' team

Team's members who carried out activities in the reporting period and the number of days worked by each expert are schematically presented in Table 3.1.

Table 3.1. Members of the experts' team

No.	Experts	Names of experts	Number of working days post-construction
1.	Project manager	Deák György	5
2.	Chemist 1	Ghiță Gina	5
3.	Chemist 2	Borș Adriana	6
4.	Ichthyologist 1	Cristea Victor	8
5.	Ichthyologist 2	Falka Istvan	0
6.	Hydrology	Poteraș George	8
7.	Hydraulic sedimentology	Ungureanu Gh Viorel	12
8.	Phytoplankton and aquatic macrophytes	Marinescu Florica	0
9.	Zooplankton	Adina Popescu	0
10.	Terrestrial invertebrates	Șerban Cecilia	0
11.	Aquatic macroinvertebrates	Florea Luiza	5
12.	Terrestrial flora and vegetation	Frink Jozsef Pal	0
13.	Ornithologist 1	Jozsef Szabo	15
14.	Ecologist 1	Ambrus Laszlo	4
15.	Ecologist 2	Zaharia Tania	4
16.	Assessor	Tudor Marian	5

3.2. Experts' tasks during the project

The tasks accomplished by experts on each phase/activity/critical point are presented in Experts' Activity Reports (Annex 6.3).



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3.3. Planning the activities for the next month on each phase/activity/critical point

The monitoring activities for the period 01-31 May 2017 are synthetically presented in the table 3.4.

Table 3.4. Activities for the period of 01.05-31.05.2017

No.	ACTIVITIES	Critical points							
		Main critical points			Secondary critical points				
		01	02	10	03A	03B	04A	04B	07
1.	Further campaign of measurements, field observations (where is necessary)	YES	YES	YES	YES	YES	YES	YES	YES
2.	Processing and interpretation of field and laboratory data (where is necessary)	YES	YES	YES	YES	YES	YES	YES	YES
3.	Monthly report preparation	YES	YES	YES	YES	YES	YES	YES	YES



4. TIME SCHEDULE AND BUDGET PROJECT

4.1. Time schedule for project implementation

ID	Task Name	Start	Finish												
				27	Apr '17	03	10	17	24	May '17	01	08	15	22	Jun '17
1	Air monitoring: Data and measurements processing and assessing, related to air quality, in secondary critical points CP 03A, CP 03B, CP 04A, CP 04B, CP 07.	Mon 03.04.17	Fri 28.04.17												
2	72nd Month	Mon 03.04.17	Fri 28.04.17												
3	Air monitoring: Contribution to Interim Report 16	Mon 03.04.17	Wed 31.05.17												
4	72nd Month	Mon 03.04.17	Fri 28.04.17												
5	73rd Month	Tue 02.05.17	Wed 31.05.17												
6	Noise monitoring: Contribution to Interim Report RI16	Mon 03.04.17	Wed 31.05.17												
7	72nd Month	Mon 03.04.17	Fri 28.04.17												
8	73rd Month	Tue 02.05.17	Wed 31.05.17												
9	Water quality monitoring - Water (physical-chemical analysis) - laboratory analysis C63 (CP 01, CP 02, CP 10, CP03, CP04, CP07)	Mon 03.04.17	Fri 28.04.17												
10	72nd Month	Mon 03.04.17	Fri 28.04.17												
11	Water quality monitoring - Water (physical-chemical analysis) - Data processing for Interim Report 16 (CP 01, CP 02, CP 10, CP03, CP04, CP07)	Tue 02.05.17	Wed 31.05.17												
12	73rd Month	Tue 02.05.17	Wed 31.05.17												
13	Water quality monitoring - Sediments (heavy metals, organic micropollutants) - Physical-chemical laboratory analysis C63 (CP 01, CP 02, CP 10, CP03, CP04, CP07)	Mon 03.04.17	Fri 28.04.17												
14	72nd Month	Mon 03.04.17	Fri 28.04.17												
15	Water quality monitoring - Sediments (heavy metals, organic micropollutants) - Data processing for Interim Report 16 (CP 01, CP 02, CP 10, CP03, CP04, CP07)	Tue 02.05.17	Wed 31.05.17												
16	73rd Month	Tue 02.05.17	Wed 31.05.17												
17	Soil monitoring - Physical-chemical analysis C25 (CP03, CP04, CP07)	Mon 03.04.17	Fri 28.04.17												
18	72nd Month	Mon 03.04.17	Fri 28.04.17												
19	Soil monitoring - Data processing for Interim Report 16 drafting (CP 01, CP 02, CP 10, CP03, CP04, CP07)	Tue 02.05.17	Wed 31.05.17												
20	73rd Month	Tue 02.05.17	Wed 31.05.17												
21	Aquatic fauna monitoring CP 01/02/10/03A/03B/04A/04B/07 - aquatic macroinvertebrates - laboratory analysis, composition, abundance	Mon 03.04.17	Fri 28.04.17												
22	72nd Month	Mon 03.04.17	Fri 28.04.17												
23	Hydromorphological monitoring in CP 01/CP 02/CP 10 - Single-beam measurements - sections profiling	Mon 03.04.17	Wed 31.05.17												
24	72nd Month	Mon 03.04.17	Fri 28.04.17												
25	73rd Month	Tue 02.05.17	Wed 31.05.17												



Project: MONITORING THE ENVIRONMENTAL IMPACT OF THE WORKS REGARDING THE IMPROVING OF THE NAVIGATION CONDITIONS ON THE DANUBE RIVER BETWEEN CALARASI AND BRAILA, km 375-175

MONTHLY REPORT No 72: 1 - 30 April 2017

ID	Task Name	Start	Finish												
				27	Apr '17	03	10	17	24	May '17	01	08	15	22	Jun '17
26	Hydromorphological monitoring in CP 01/CP 02/CP 10 - Flow rate monitoring (volume, velocity, level)	Mon 03.04.17	Wed 31.05.17												
27	72nd Month	Mon 03.04.17	Fri 28.04.17												
28	73rd Month	Tue 02.05.17	Wed 31.05.17												
29	Hydromorphological monitoring in CP 01/CP 02/CP 10 - level and turbidity measurements in hydrometric automatic station belonging to	Mon 03.04.17	Wed 31.05.17												
30	72nd Month	Mon 03.04.17	Fri 28.04.17												
31	73rd Month	Tue 02.05.17	Wed 31.05.17												
32	Ichtyofauna biodiversity monitoring CP 01/02/10/03/04/CP07 - trails and migration periods monitoring for sturgeon specimens with	Mon 03.04.17	Wed 31.05.17												
33	72nd Month	Mon 03.04.17	Fri 28.04.17												
34	73rd Month	Tue 02.05.17	Wed 31.05.17												
35	Ichtyofauna biodiversity monitoring CP 01/02 - Data downloading from the monitoring systems	Mon 03.04.17	Wed 31.05.17												
36	72nd Month	Mon 03.04.17	Fri 28.04.17												
37	73rd Month	Tue 02.05.17	Wed 31.05.17												
38	Ichtyofauna biodiversity monitoring CP 01 - Active tracking with VR100 device for sturgeons specimens in Bala - Borcea area	Mon 03.04.17	Wed 31.05.17												
39	72nd Month	Mon 03.04.17	Fri 28.04.17												
40	73rd Month	Tue 02.05.17	Wed 31.05.17												
41	Ichtyofauna biodiversity monitoring CP 01 - Bathymetric measurements in bottom sill area on Bala branch and adjacent area during sturgeons migration monitoring	Mon 03.04.17	Fri 28.04.17												
42	72nd Month	Mon 03.04.17	Fri 28.04.17												
43	Ichtyofauna biodiversity monitoring CP 01 - Elaboration of the 16th Interim Report for the period September 2016 - December 2016.	Mon 03.04.17	Fri 28.04.17												
44	72nd Month	Mon 03.04.17	Fri 28.04.17												
45	Monitoring of avifauna targeted by Birds Directive in CP 01/02/03/07/10	Mon 03.04.17	Wed 31.05.17												
46	72nd Month	Mon 03.04.17	Fri 28.04.17												
47	73rd Month	Tue 02.05.17	Wed 31.05.17												
48	Avifauna monitoring in Natura 2000 sites in CP 01/02/03/07/10	Mon 03.04.17	Wed 31.05.17												
49	72nd Month	Mon 03.04.17	Fri 28.04.17												
50	73rd Month	Tue 02.05.17	Wed 31.05.17												
51	Monthly reports	Mon 03.04.17	Wed 31.05.17												
52	72nd Month	Mon 03.04.17	Fri 28.04.17												
53	73rd Month	Tue 02.05.17	Wed 31.05.17												

4.2. Budget and expenses incurred during the reporting period

Justifying calculation for 01 - 30 April 2017

I. EXPERTS EXPENSES				
No.	Experts	No. of working days	Fee (Euro on working day)	Maximum total value of the fees
		Post - Construction (36 months)		
1	Project leader	5	240	1.200,00 EUR
2	Chemist 1	5	200	1.000,00 EUR
3	Chemist 2	6	200	1.200,00 EUR
4	Ichthyologist 1	8	330	2.640,00 EUR
5	Ichthyologist 2	0	200	0,00 EUR
6	Hydrology	8	200	1.600,00 EUR
7	Hydraulic- sedimentology	12	200	2.400,00 EUR
8	Aquatic phytoplankton and macropytes	0	130	0,00 EUR
9	Zooplankton	0	130	0,00 EUR
10	Terrestrial invertebrates	0	125	0,00 EUR
11	Aquatic macroinvertebrates	5	125	625,00 EUR
12	Terrestrial flora and fauna	0	125	0,00 EUR
13	Ornithologist 1	15	200	3.000,00 EUR
14	Ecologist 1	4	140	560,00 EUR
15	Ecologist 2	4	140	560,00 EUR
16	Evaluator	5	330	1.650,00 EUR
SUBTOTAL EXPERTS' FEES				16.435,00 EUR
II EXPENSES with JUSTIFICATION				
1	Ichthyology- telemetry (sturgeons and barbel transmitters, batteries, expensis on stugeons' capturing)			18.786,00 EUR
2	Abiotic and biotic data for the establishment of the framework			
3	Analysis			0,00 EUR
SUBTOTAL EXPENSES with JUSTIFICATION				18.786,00 EUR
III. MATHEMTICAL MODELING				
1	Software aquisiton+hardware+ necessary licenses			0,00 EUR
2	Acquisition of bathymetric data, necessary for the mathematical modeling			37.627,63 EUR
3	Training of 2 specialists in numerical modeling			0,00 EUR
4	Fee for the numerical modeling expert			0,00 EUR
5	3D numerical model and implementation in 3D monitoring			0,00 EUR
SUBTOTAL NUMERICAL MODELING				37.627,63 EUR
TOTAL without V.A.T.				72.848,63 EUR

4.3. Budget and expenses for the next period

Estimated calculation for 01 - 31 May 2017

I. EXPERTS EXPENSES				
No.	Experts	No. of working days	Fee (Euro on working day)	Maximum total value of the fees
		Post - Construction (36 months)		
1	Project leader	5	240	1.200,00 EUR
2	Chemist 1	3	200	600,00 EUR
3	Chemist 2	6	200	1.200,00 EUR
4	Ichthyologist 1	8	330	2.640,00 EUR
5	Ichthyologist 2	5	200	1.000,00 EUR
6	Hydrology	8	200	1.600,00 EUR
7	Hydraulic- sedimentology	12	200	2.400,00 EUR
8	Aquatic phytoplankton and macropytes	0	130	0,00 EUR
9	Zooplankton	0	130	0,00 EUR
10	Terrestrial invertebrates	0	125	0,00 EUR
11	Aquatic macroinvertebrates	5	125	625,00 EUR
12	Terrestrial flora and fauna	0	125	0,00 EUR
13	Ornithologist 1	15	200	3.000,00 EUR
14	Ecologist 1	2	140	280,00 EUR
15	Ecologist 2	4	140	560,00 EUR
16	Evaluator	5	330	1.650,00 EUR
SUBTOTAL EXPERTS' FEES				16.755,00 EUR
II EXPENSES with JUSTIFICATION				
1	Ichthyology- telemetry (sturgeons and barbel transmitters, batteries, expensis on stugeons' capturing)			10.000,00 EUR
2	Abiotic and biotic data for the establishment of the framework			
3	Analysis			0,00 EUR
SUBTOTAL EXPENSES with JUSTIFICATION				10.000,00 EUR
III. MATHEMATICAL MODELING				
1	Software acquisition+hardware+ necessary licenses			0,00 EUR
2	Acquisition of bathymetric data, necessary for the mathematical modeling			50.000,00 EUR
3	Training of 2 specialists in numerical modeling			0,00 EUR
4	Fee for the numerical modeling expert			0,00 EUR
5	3D numerical model and implementation in 3D monitoring			0,00 EUR
SUBTOTAL NUMERICAL MODELING				50.000,00 EUR
TOTAL without V.A.T.				76.755,00 EUR

5. CONCLUSIONS, RECOMMENDATIONS, WARNINGS

- 5.1 This Monthly Report reflects monitoring activities from April 2017 related to post-construction period.
- 5.2 For the specific monitoring objectives within this phase, the Provider considered that the field and laboratory activities, logistics and infrastructure be sized so as to be according to the graphs and stipulations mentioned in the Specifications.
- 5.3 Taking into consideration the importance of the construction works that take place on Danube on the section between Calarasi and Braila, the Consortium recommends further actions on biodiversity monitoring, at least with the frequency similar to post-construction phase, up to completion of the project, in order to ensure an informational volume, with a high confidence level, to allow if necessary, the development of preventive solutions.
- 5.4 In April 2017, hydromorphological monitoring activity was mainly based on ADCP measurements (flow rates and velocities) in main critical points area: CP01, CP02 and CP10, as well as single-beam measurements for sections profiling in the main 3 critical points, with average flow rates compared to historical data for this period of the year.
- 5.5 The research team from INCDPM Bucharest intensively monitored the beluga specimen coded 12S25 by single beam bathymetry measurements, flow and velocity measurements in bottom sill area on Bala branch, as well as tracking with VR 100 mobile device and data downloading from DKTB systems, and DKMR-01T.
- 5.6 In April 2017, there was no scientific fishing for sturgeon species due to the blockage produced by National Agency for Fisheries and Aquaculture. Although INCDPM Bucharest has submitted the necessary documentation for the issue of scientific fishing permit for sturgeon species since January 2017, A.N.P.A. did not release the document according to our legislation and requirements.

6. ANNEXES

6.1 Relevant correspondence

6.2 Images of activities

6.3 Experts' activity reports

6.4 Hydromorphology monitoring

6.5 Reports of analytical results for 1 - 30 April 2017

6.4.1: Reports of analytical results for AIR

6.4.2: Reports of analytical results for SOIL

6.4.3: Reports of analytical results for WATER

6.4.4: Reports of analytical results for SEDIMENTS

6.6 Avifauna monitoring

6.7 Natura 2000 sites monitoring