

**FINAL REPORT**  
**ON IMPLEMENTATION OF MEASURES**  
**LISTED IN THE ENVIRONMENTAL MANAGEMENT PLAN**  
**for the period: 1 April 2019 – 25 December 2020**

ODRA-VISTULA FLOOD MANAGEMENT PROJECT

Subcomponent OVFMP	3B Flood Protection of Sandomierz and Tarnobrzeg
Contract Task	<b>3B.2 Flood Protection of Tarnobrzeg</b>
Investor / Project Implementation Unit	State Water Holding Polish Waters Regional Water Management Authority in Rzeszów 17B. Hanasiewicza Street, 35-103 Rzeszów
Project Implementation Office (PIO)	State Water Holding Polish Waters Regional Water Management Authority in Rzeszów 17B. Hanasiewicza Street, 35-103 Rzeszów
Contractor	Joint-venture: Ekomel Sp. z o.o., Zakład Usług Wodno-Melioracyjnych i Rekultywacji Sp. j., DABI SM BUDNY Sp. z o.o. Sp.k.
Engineer	AECOM Polska Sp. z o.o. 34a Domaniewska Street, 02-672 Warsaw, Poland

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## **INTRODUCTION**

This study is the final report of the Contract's Engineer for the period **April 2019 – December 2020**. It presents a report on the implementation of measures listed in the Environmental Management Plan (EMP) for the task: „Flood Protection of Tarnobrzeg” constituting a part of Subcomponent 3B under the Odra and Vistula Flood Management Project (OVFMP).

The Report describes ESHS-related (environment, social, health & safety) activities and events on the construction site and in its impact area. The report covers the period from the date of commencement of construction works, **i.e. from April 1, 2019**, to the date of completion of works covered by the Contract 3B.2, which took place **on December 25, 2020**. The Final Acceptance Protocol was signed **on December 28, 2020**.

For this Contract, the following have been presented:

- status of delivery of ESHS-related issues (proceedings and decisions obtained during the reporting period, inspections, controls, extraordinary events, failures, and disasters, etc.);
- status of implementation of mitigation measures listed in Appendix 1 of the EMP,
- status of implementation of monitoring measures listed in Appendix 2 of the EMP,
- summary.

## **1 BASIC INFORMATION ABOUT THE CONTRACT 3B.2**

### **1.1 GENERAL DATA**

The Work Contract 3B.2 *Flood Protection of Tarnobrzeg* is a part of Subcomponent 3B *Flood protection of Sandomierz and Tarnobrzeg*. Under this contract, the expansion of the right embankment of the Vistula River at a length of 13.959 km, the right embankment of the San River at a length of 2.193 km and the left embankment of the Łęg River at a length of 0.112 km were carried out in the Gorzyce commune and the Radomyśl nad Sanem commune, Podkarpackie voivodeship.

The Contract with the OVFMP 3B.2 Contractor was signed on March 22, 2019. On March 25, 2019 the Engineer issued the Instruction to Commence the Works (so-called Commencement Date). The Contractor started works in the field on April 1, 2019.

#### **Name of the Contract**

*Contract 3B.2: Flood Protection of Tarnobrzeg*

#### **The Contractor**

‘Ekomeł Sp. z o.o.’ – Leader, ‘Zakład Usług Wodno-Melioracyjnych i Rekultywacji Sp. j.’, ‘DABI SM BUDNY Sp. z o.o. Sp.k.’

#### **Task list**

The planned extension of the embankments was aimed to raise a level of flood safety in the valley of Upper Vistula, in particular in the Radomyśl nad Sanem and Gorzyce communes. The scope of the project covered by the Works Contract 3B.2 included the following elements:

- elevation of the embankment’s crest, compaction and sealing of the embankment body and its expansion at the embankment side (to reach the 2<sup>nd</sup> hydrotechnical class parameters);
- securing the water-side slope with a galvanized steel mesh placed directly on geomembrane and covered with a layer of ground which is also used to form the embankment body (protection against damage made by burrowing animals, especially beavers);
- placement of bio-material (bio-mat) at the water-side slope and its coverage with a layer of topsoil (3 cm thick);
- execution of technological routes along the embankment crest and the by-embankment bench crest;
- execution of a ‘green’ service route at the embankment water-side (with its surface covered with a mixture of grasses);
- reconstruction of the water-locks;
- demolition of the abandoned building located at the land plot no. 975 in the precinct of Wrzawy which colliding with the infrastructure planned for reconstruction.

The investment was divided into 3 sections:

- Section I – the right embankment of the Vistula River at km 286+816 – 279+416 on the section 0+000 – 7 +205, Radomyśl nad Sanem commune, Stalowa Wola district;
- Section II – the right embankment of the Vistula River at km 278+750 – 273+650, on the section 0+000 – 4+889, Gorzyce commune, Tarnobrzeg district;
- Section III - the right embankment of the Vistula River at km 273+783 – 271+806 on the section 0+000 – 1+865, Gorzyce commune, Tarnobrzeg district and the left embankment of the Łęg River at the length of 0.112 km (at km 0+770 - 0+900 of the Łęg River, on the section 0+000 – 0+112), Gorzyce commune, Tarnobrzeg district;

and also included an extension of the right embankment of the San River at the length of 2.193 km (at km 0+239 – 2+276 of the San River, on the section 0+000 – 2+193), Radomyśl nad Sanem commune, Stalowa Wola district (also marked as San Section).

## 1.2 BASIC TERMS OF THE CONTRACT

<b>Contract signing date:</b>	March 22, 2019
<b>Works commencement date:</b>	March 25, 2019 (works commencement with an entry in the logbook: April 1, 2019)
<b>Time to complete the works (according to the Contract):</b>	21 months
<b>Annex No 1 signing date:</b>	March 20, 2019
<b>Annex No 2 signing date:</b>	April 26, 2019
<b>Annex No 3 signing date:</b>	November 27, 2019
<b>Annex No 4 signing date:</b>	June 26, 2020
<b>Annex No 5 signing date:</b>	August 17, 2020
<b>Annex No 6 signing date:</b>	November 5, 2020
<b>Annex No 7 signing date:</b>	November 19, 2020
<b>Annex No 8 signing date:</b>	December 28, 2020
<b>Works completion date:</b>	December 25, 2020 (date of substantial completion of the works covered by the Contract)
<b>Final Acceptance Protocol signing date:</b>	December 28, 2020

## **2 ENVIRONMENTAL, SOCIAL, HEALTH & SAFETY ACTIVITIES AND EVENTS**

### **2.1 CONTRACTOR'S ACTIVITIES**

In the reporting period, the Contractor performed preparatory and construction works under Contract 3B.2, including, among others, implementation of individual measures listed in the Environmental Management Plan to the extent assigned to the Contractor.

### **2.2 ENGINEER'S/CONSULTANT'S ACTIVITIES**

In the reporting period, the Engineer/Consultant supervised the works of the Contractor under Contract 3B.2, including implemented individual activities listed in the Environmental Management Plan in the scope assigned to the Engineer/Consultant.

In addition, during the implementation of Contract 3B.2, the Engineer/Consultant participated in the World Bank Missions as part of supervision over the implementation of the Odra-Vistula Flood Management Project.

### **2.3 INVESTOR'S ACTIVITIES**

In the reporting period, the Investor performed activities assigned to him related to the implementation of Contract 3B.2, including implemented individual activities listed in the Environmental Management Plan in the scope assigned to the Investor and supervised the activities of the Contractor and the Engineer/Consultant.

In addition, during the implementation of Contract 3B.2, the Investor participated in the World Bank Missions as part of supervision over the implementation of the Odra-Vistula Flood Management Project.

### **2.4 OTHER ACTIVITIES**

In May 2020, the Engineer adopted Annex No. 1 to the Health&Safety Protection Plan (BIOZ) prepared by the Contractor, specifying a set of protective measures, methods of risk identification and implementation of information activities in connection with the COVID-19 coronavirus epidemic. From March 20, 2020, there was an epidemic state at the territory of Poland in connection with SARS-CoV-2 virus infections causing the COVID-19 disease. The activities of the Contractor, the Engineer/Consultant and the Investor in the implementation of activities related to the Environmental Management Plan were adjusted to the applicable sanitary requirements related to preventing the spread of SARS-CoV-2 virus.

### **2.5 EXTRAORDINARY EVENTS, THREATS AND DISASTERS**

In May 2019, the Vistula flood temporarily precluded the implementation of preparatory and construction works in the area of the sections covered by the project (Section II, III, San). After the flood status receded, the Contractor started to remove the flood effects, including the isolated still water bodies and organic materials deposited with the water (end of May 2019). Additionally, in June 2020, a flood alarm was introduced, effective from June 23/24, until June 29, 2020

## **2.6 ACCIDENTS**

### **2.6.1 Accidents involving employees of the Contractor**

Not applicable.

### **2.6.2 Accidents involving persons authorized to be present on site and other persons**

On October 7, 2019, an Accident happened in the Section II at km 1+800. A truck transporting soil material to the embankment has overturned. The cause of the accident was an unjustified turn of the truck towards the landside of the embankment, which resulted in the vehicle overturning and a spilling out of the transported material. The truck driver - the supplier of the soil material - suffered in the accident. Corrective actions were taken in the form of additional OSH training for suppliers, a training sheet for suppliers and visitors at the construction site was introduced, and the slopes edges were additionally marked.

## **2.7 ACTIVITIES RELATED TO PROVIDING SALARY AND EMPLOYMENT TERMS OF THE CONTRACTOR'S PERSONNEL**

In the reporting period, the Contractor ensured appropriate salary and employment terms for the personnel, in line with the labor law provisions in force in Poland.

## **2.8 ACTIVITIES RELATED TO COUNTERACTING SEXUAL HARASSMENT AND MOBBING**

In the reporting period, there were no events related to cases of sexual harassment and mobbing.



### 3 MITIGATION AND MONITORING MEASURES LISTED IN THE EMP FOR THE CONTRACT 3B.2

The Environmental Management Plan (EMP) for the Contract 3B.2 was prepared on February 19, 2018 (final version). On February 28, 2018, the World Bank issued “No objection” decision, approving the Environmental Management Plan as one of the tender documents for the selection of the Contractor for construction works under the Contract. The Environmental Management Plan is the document that organizes the actions undertaken under the Contract, obliges everyone involved in the Contract implementation to comply with its requirements. A detailed description of the Contract implementation in terms of the environmental management was presented as the Appendixes to the EMP – Appendix 1 containing Mitigation Measures Plan and Appendix 2 containing Monitoring Measures Plan.

#### 3.1 REQUIREMENTS LISTED IN THE APPENDIX 1 TO THE EMP

The Appendix 1 to the EMP for the Contract 3B.2 includes 120 mitigation measures aimed to prevent and to limit the negative impact of the Project on the environment. Those measures results, to a large, extend, from the Environmental Decision (Decision on environmental conditions dated September 7, 2016, Ref. no.: WOOŚ.4233.24.2013.MG.157), but also from the formal requirements of the World Bank. The list of measures listed in the table contains references to requirements of the Environmental Decision (if they result directly from requirements of the Environmental Decision) as well as to the list of organizational units responsible for their implementation.

The measures are divided into 9 thematic categories marked with letters *A - I* and described in checking lists:

<b>Sign</b>	<b>Category</b>	<b>Item</b>
<i>A</i>	<i>REQUIREMENTS CONCERNING ENVIRONMENTAL PROTECTION TO BE INCLUDED IN THE CONSTRUCTION DESIGN</i>	1-8
<i>B</i>	<i>RULES CONNECTED WITH LAND ACQUISITION, ORGANIZATION OF THE SITE FACILITIES, WAREHOUSES AND STORAGE YARDS</i>	9-27
<i>C</i>	<i>ADDITIONAL MITIGATION MEASURES CONCERNING THE RESTORING OF THE SHELTERS AND FEEDING SITES REFERRED TO IN THE ENVIRONMENTAL DECISION</i>	28-30
<i>D</i>	<i>MEASURES TO BE IMPLEMENTED PRIOR TO THE COMMENCEMENT OF WORKS</i>	31-46
<i>E</i>	<i>REQUIREMENTS CONCERNING ASSURANCE OF THE ACCESS ROUTES TO THE CONSTRUCTION SITE</i>	47-57
<i>F</i>	<i>REQUIREMENTS FOR REMOVAL OF TREES AND SHRUBS</i>	58-60
<i>G</i>	<i>REQUIREMENTS AT THE PERFORMANCE</i>	61-111
<i>H</i>	<i>REQUIREMENTS AFTER COMPLETION OF THE WORKS</i>	112-119
<i>I</i>	<i>GENERAL REQUIREMENTS</i>	120

### **3.2 REQUIREMENTS LISTED IN THE APPENDIX 2 TO THE EMP**

The Appendix 2 to the EMP for the Contract 3B.2 includes a set of 120 measures aimed to control the mitigation measures implementation defined in the Appendix 1 to the EMP. Table of the monitoring measures includes the same thematic categories as those applied to the mitigation measures. In the table of the monitoring measures specified the areas, methods, period and frequency of monitoring, as well as the organizational units responsible for conduct of the monitoring measurements.

## **4 SUPERVISION SYSTEM ON THE IMPLEMENTATION OF MEASURES LISTED IN THE EMP FOR THE CONTRACT 3B.2**

Supervision over the implementation of mitigation measures and monitoring measures listed in the EMP for the Contract 3B.2 was carried out by all organizational units involved in the Contract implementation i.e. the Contractor for construction works, the Contract's Engineer, the Project Implementation Unit (PIU) and the Project Implementation Office (PIO). Information on the scope of activity of each organizational unit is presented below.

### **4.1 THE CONTRACTOR FOR CONSTRUCTION WORKS**

The person responsible for implementing the measures listed in the EMP on behalf of the Contractor for construction works was the Site Manager. In order to support the Site Manager in the EMP implementation, in the Contractor's team the Nature Supervision was appointed, composed of a person acting as the Coordinator/Manager of the Environmental Team. The duty of this person was ongoing cooperation with the Site Manager, the rest of the Contractor's staff and the Key Environmental Management Expert in the Engineer's team in ensuring the implementation of EMP conditions, as well as conducting ongoing reporting in the above-mentioned range. Moreover, according to item no. 101 and 103 in the Appendix 1 to the EMP, the Contractor assured the archeological and sapper experts supervision according to the EMP requirements.

After each month of the construction works the Coordinator in the Contractor's team prepared so-called Checklist to describe in details the current status of implementation of the EMP requirements in this month. The checklist was submitted to the Key Environmental Management Expert in the Engineer's team as an Appendix to the Reports on the implementation of measures listed in the EMP, together with other appendixes i.e. notes from environmental supervision and photographic documentation.

### **4.2 THE ENGINEER**

Direct supervision over the EMP implementation on behalf of the Engineer's team was carried out by the Key Environmental Management Expert in cooperation with the Resident Engineer and other members of the Engineer's team performing the investor supervision over the investment implementation. The Key Environmental Management Expert cooperated with supporting experts in the Engineer's team and in addition, he was in constant contact with the Contractor's Coordinator of the Environmental Team to determine the scope of conditions to be met at each stage, to coordinate the EMP requirements implementation, to participate in current problems solving and monitor the construction site area. At the end of each reporting period (each month and each quarter), Expert verified the Contractor's environmental documentation, including the EMP measures implementation checklist and prepared his own reports submitted to the Project Implementation Unit.

### **4.3 PROJECT IMPLEMENTATION UNIT (PIU)**

Direct supervision over the EMP implementation on behalf of the Project Implementation Unit (PIU) was carried out by the Environmental Expert cooperating with PIU's Manager, other PIU's members and other organizational units of the Regional Water Management Authority in Rzeszów. The Environmental Expert, as well as PIU's Manager, stayed in touch with the Key Environmental Management Expert in the Engineer's team to supervise the EMP implementation and to participate in current problems solving. At the end of each reporting period (each month and each quarter), the Environmental Expert and PIU's Manager verified the Contractor's and the Engineer's environmental documentation and then submitted them to the Project Implementation Office.

### **4.4 PROJECT IMPLEMENTATION OFFICE (PIO)**

Direct supervision over the EMP implementation on behalf of the Project Implementation Office (PIO) was carried out by the Environmental Management Expert in cooperation with other PIO's members. The Environmental Management Expert was in constant contact with PIU's Manager and with the Environmental Expert in the PIU's team. He also cooperated with representatives of other organizational units i.e. the Key Environmental Management Expert in the Engineer's team, the Site Manager, and the Coordinator of the Environmental Team in the Contractor's Environmental Supervision team. The Environmental Management Expert supervised the EMP implementation, was involved in current problems solving and participated in monitoring of construction site area. At the end of each reporting period (each month and each quarter), he verified the environmental documentation provided by the PIU and prepared the contents of the PIO reports to be submitted to the World Bank.

## **5 REPORT ON IMPLEMENTATION OF MEASURES LISTED IN THE EMP FOR CONTRACT 3B.2**

### **5.1 STATUS OF IMPLEMENTATION OF MITIGATION MEASURES FROM APPENDIX 1 TO THE EMP**

In accordance with Appendix 1 to the EMP for Contract 3B.2, the entities responsible for implementation of mitigation measures specified in Appendix 1 to the EMP are: **the Contractor (119 measures:** items 1-9, 11-120 in Appendix 1 to EMP), **the Engineer/Consultant (4 measures:** item 10-11, 102, 110 in Appendix 1 to the EMP), **the Designer (8 measures:** items 1-8 in Appendix 1 to the EMP) and **the Investor (5 measures:** items 10, 28, 110, 115, 117 in Appendix 1 to the EMP). Overall, the EMP for the Contract 3B.2 provides for implementation of 120 mitigation measures, including at least 115 measures that should be implemented in the reporting period (see below).

#### **5.1.1 Contractor's Measures**

According to information provided by the Contractor and information from the Engineer:

- a) In the reporting period, the Contractor implemented 114 (95.0%) mitigation measures: (items 1-9, 11-59, 61-101, 103-112, 116-120 in Appendix 1 to the EMP);
- b) In the reporting period, the Contractor did not implement 5 (4.2%) mitigation measures (there was no need to implement measures): (items 60, 102, 113-115 in Appendix 1 to the EMP);

Mitigation measures were implemented by the Contractor with the involvement of experts from the Contractor's environmental team. In the reporting period, the team consisted of the following persons: the Coordinator of the Environmental Team (simultaneously acting as the Coordinator for the Nature Supervision team and the Botanist Expert), Herpetologist and Chiropterologist Expert, Entomologist and Ornithologist Expert, Archaeologist Expert, H&S Coordinator and Sapper.

Mitigation measures were agreed (if this was required by the terms of Contract and/or the EMP) and supervised by the Engineer with involvement of the following persons in the Engineer's team: Key Environmental Management Expert, Senior Supporting Expert for Environmental Management, Senior Supporting Expert – H&S Inspector, Senior Supporting Expert for Technical Assistance, Senior Supporting Experts – Supervision Inspectors and Key Experts – Resident Engineer and Project Manager.

### **5.1.2 Engineer's/Consultant's Measures**

According to the information provided by the Engineer/Consultant:

- a) In the reporting period, the Engineer/Consultant implemented 3 (2.5%) mitigation measures  
(items 10-11, 110 in Appendix 1 to the EMP);
- b) In the reporting period, the Engineer/Consultant did not implement 1 (0.8%) mitigation measure (there was no need to implement measure):  
(item 102 in Appendix 1 to the EMP).

The mitigation measures were implemented by the Engineer/Consultant with the participation of selected Experts from the Engineer's/Consultant's Environmental Team.

### **5.1.3 Investor's Measures**

According to information provided by the Investor and the Engineer/Consultant:

- a) In the reporting period, the Investor implemented 2 (1.8%) mitigation measures  
(items 10, 110 in Appendix 1 to the EMP);
- b) In the reporting period, the Investor did not implement 3 (2.5%) mitigation measures  
(there was no need to implement measures):  
(items 28, 115, 117 in Appendix 1 to the EMP).

Mitigation measures were implemented by the Investor with the involvement of the following persons from the PIU's team: Environmental Expert, Technical Expert (Supervision Inspector) and PIU's Manager.

### **5.1.4 Conclusions from the implementation of mitigation measures**

Information on the extent of mitigation measures implemented by the Contractor, the Engineer/Consultant, and the Investor is presented in sections 3 and 5. As a result of the monitoring measures described in sections 5.1.1-5.1.3, the following problems and anomalies related to the implementation of 21 mitigation measures from Appendix 1 to the EMP were found throughout the entire period of works implementation:

- a) Occupation of land beyond the demarcation lines  
[referring to measures under items 9, 13 and 47 in Appendix 1 to the EMP]:

In the reporting period, there were sporadic cases of violation of the inter-embankment zone outside the demarcation lines, by entering a construction vehicle and short-term storage of construction materials in the area of Section II. The temporary occupation of land beyond the demarcation lines did not contribute to the impoverishment of valuable natural components of the inter-embankment zone.

The implementation of the above-mentioned measures related to the requirements included in the EMP. The lack of implementation of the above-mentioned measures did

not have a significant negative impact on the condition of the natural environment in the area of the investment site.

- b) Storage of topsoil masses, construction masses and materials in the area of particular flood risk (including in the inter-embankment area), inadequate topsoil storage, topsoil pollution and running over topsoil  
[referring to measures under items 18, 22, 31, 51, 96 and 97 in Appendix 1 to the EMP]:

In the reporting period, there were cases of storage of disordered construction elements and waste in the inter-embankment zone of the sections covered by the Contract. Additionally, for most of the time duration of the works, the stored topsoil was not systematically transported outside the inter-embankment area. The topsoil was stored in the inter-embankment area and on the waterside of the embankment's slopes (which increased the mixing of the organic part with the construction material of the embankment), often also in periodically wetlands. On the portions of some sections (e.g. Section I, Section II), irregular cases of running over topsoil by construction equipment were found in the place of topsoil storage. There were also incidental cases of inadequate parking of cars in the topsoil pile area in the landside of the embankment of Section I (4th quarter of 2020). In the same place, the Contractor temporarily stored construction materials on a topsoil pile. As a result of systematic remarks by the Engineer regarding the method of storing construction materials and the protection of topsoil in the Contract area, the Contractor, along with the progress of works, undertook actions to improve the conditions of topsoil storage and its protection, as well as undertook activities aimed at limiting the storage of construction materials and waste in the inter-embankment area. The implementation of the above-mentioned measures related to the requirements included in the EMP. The lack of implementation of the above-mentioned measures did not have a significant negative impact on the condition of the natural environment in the area of the investment site.

- c) Cases of petroleum substances leakages on the construction site, insufficient technical condition of vehicles  
[referring to measures under items 19, 95 and 106 in Appendix 1 to the EMP]:

In the 2nd quarter of 2020, isolated cases of operational leaks from construction vehicles were found. At the same time, the sorbent containers were not available in the area of all construction facilities. As a result of the environmental problems, the Contractor removed the contaminated soil, handing it over for disposal to a qualified company. In addition, inspections of the technical condition of vehicles were intensified, which contributed to limiting the occurrence of similar events in future reporting periods. Access to sorbent containers was also improved, and the Contractor's employees were re-trained in terms of ensuring adequate protection of the soil and water environment, the use of sorbents and quick response to emerging contaminants.

The implementation of the above-mentioned measures related to the requirements included in the EMP. The lack of implementation of the above-mentioned measures did

not have a significant negative impact on the condition of the natural environment in the area of the investment site.

- d) Incorrect waste management at the construction site, lack of systematic collection a solid waste from the topsoil

[referring to measures under items 26 and 93 in Appendix 1 to the EMP]:

In the reporting period, cases of leaving disordered construction materials and municipal waste in the inter-embankment area of the sections covered by the Contract were frequently observed. Disordered accumulation of waste in some of the site facilities was also observed. Additionally, there were cases of topsoil contamination at the place of their storage. The Contractor undertook activities aimed at improving the state of waste management and cleaning the construction site and site facilities from solid waste.

The implementation of the above-mentioned measures related to the requirements included in the EMP. The lack of implementation of the above-mentioned measures did not have a significant negative impact on the condition of the natural environment in the area of the investment site.

- e) Delays in hanging up nesting booths for birds and breeding boxes for bats

[referring to measures under items 28 and 29 in Appendix 1 to the EMP]:

In the 2nd quarter of 2019, in the area of Sections II, III and San Section, a delay was found in the implementation of the action related to hanging boxes for birds and bats, due to the inability to obtain all the required approvals for hanging boxes from the plot owners. The activities were completed in the 1st quarter of 2020.

The implementation of the above-mentioned measures related to the requirements included in the EMP. The lack of implementation of the above-mentioned measures did not have a significant negative impact on the condition of the natural environment in the area of the investment site.

- f) Delays in planting hawthorn and/or wild rose bushes along with the placement of poles, as a compensation for lost of the red-backed shrike habitats as a result of bush clearing [referring to measure under item 30 in Appendix 1 to the EMP]:

In the 2nd quarter of 2019, in the area of Section II, there was a delay in the implementation of the action related to the planting of bushes and the placement of poles for the red-backed shrike, due to the inability to obtain all the required approvals from the plot owners. The action was carried out for the following quarters, but required supplementation in planting of bushes and the supply of poles due to their theft. In 4th quarter of 2020, the Contractor carried out additional plantings of bushes and supplementing the required number of poles for the red-backed shrike.

The implementation of the above-mentioned measure related to the requirements included in the EMP. The lack of implementation of the above-mentioned measure did not have a significant negative impact on the condition of the natural environment in the area of the investment site.



- g) Contamination of public (local) roads, nuisance to road traffic, excessive dusting during transport of bulk materials

[referring to measures under items 50 and 107 in Appendix 1 to the EMP]:

In the reporting period, during dry periods, conditions favoring excessive dusting occurred. In periods of increased rainfall, there was additionally an excessive spread of mud along with the wheels of construction vehicles in the asphalt (public) roads area constituting technological roads. Bulk materials were transported with selective use of tarpaulins for trailer covers. The Contractor made efforts to reduce the nuisance of road traffic by systematic road cleaning, as well as introduced employees to the requirements for the use of tarpaulins on vehicle trailers. Gradually, along with the progress of the works and the approach to their finalization, the problem of road contamination was minimized more effectively.

The implementation of the above-mentioned measures related to the requirements included in the EMP. The lack of implementation of the above-mentioned measures did not have a significant negative impact on the condition of the natural environment in the area of the investment site.

- h) Deficiencies in the appropriate marking of the construction site

[referring to measure under item 38 in Appendix 1 to the EMP]:

In the 3rd quarter of 2020, in the vicinity of Sections II and III, cases of missing markings of the construction site were found. After identifying the problem, the Contractor carried out the required additions to the markings.

The implementation of the above-mentioned measure related to the requirements included in the EMP. The lack of implementation of the above-mentioned measure did not have a significant negative impact on the condition of the natural environment in the area of the investment site.

- i) Cases of failure to ensure adequate protection of trees in the vicinity of the works

[referring to measure under item 23 in Appendix 1 to the EMP]:

In the 1st, 3rd and 4th quarter of 2020, sporadic cases of covering trees with soil from excavations in the area of Sections I and II were found. However, the trees were not damaged, and after the zone around the tree trunks was cleaned up, they retained their vitality and appropriate phytosanitary condition.

The implementation of the above-mentioned measure related to the requirements included in the EMP. The lack of implementation of the above-mentioned measure did not have a significant negative impact on the condition of the natural environment in the area of the investment site.

Additionally, as a result of the monitoring measures described in sections 5.1.1-5.1.3, the following short-term irregularities related to the implementation of 3 mitigation measures from Appendix 1 to the EMP but not causing significant deviations from the EMP, were found throughout the entire period of works implementation:

- j) A short-term ecological trap in a form of the stored soil with good conditions for nesting of *Riparia riparia*

[referring to measure under item 17 in Appendix 1 to the EMP]:

At the turn of April and May 2020 in the area of the San Section, the slope of one of the topsoil heaps were formed in such a way that there were potential, favorable conditions for the settlement of *Riparia riparia*. However, in the breeding season of *Riparia riparia* no activity of this species was observed in the area of the entire San Section. Following the Engineer's comments, the Contractor reformed the slopes in an appropriate way to limit the risk of an ecological trap.

- k) Inadequate, short-term storage of building materials and disposal of waste in the vicinity of trees

[referring to measure under item 36 in Appendix 1 to the EMP]:

In February 2020, a single case of storage of construction materials and waste in the immediate vicinity of trees was reported in the area of the construction site in Sections II and III. The trees were not damaged in a result of the storage. Following the Engineer's comments, the Contractor ensured the appropriate distance for the storage of construction materials and waste in relation to trees in the construction site facilities.

- l) Conducting works with the use of heavy equipment at the end of Section I

[referring to measure under item 74 in Appendix 1 to the EMP]:

In February 2020, short-term works, necessary for the flood protection, on the preparation of the embankment construction and equipping it with a mesh on the section km 6+200 – 7+400 were performed. It was not cleaning works. The cleaning works were fully implemented from March.

## 5.2 STATUS OF IMPLEMENTATION OF MONITORING MEASURES FROM APPENDIX 2 TO THE EMP

In accordance with contents of Appendix 2 to the EMP for the Contract 3B.2, the entities responsible for implementation of monitoring measures specified in Appendix 2 to the EMP are: **the Contractor (119 measures: items 1-9, 11-120 in Appendix 2 to the EMP)**, **the Engineer/Consultant (120 measures: items 1-120 in Appendix 2 to the EMP)**, and **the Investor (2 measures: items 10, 110 in Appendix 2 to the EMP)**. Overall, the EMP for the Contract 3B.2 provides for implementation of 120 monitoring measures, all of which should be implemented in the reporting period. No monitoring measures were completed in previous reporting periods (see below).

### 5.2.1 Contractor's Measures

In the reporting period, the Contractor was implementing monitoring measures for implementation of mitigation measures, as described in Appendix 2 to the EMP. Monitoring was performed by the following means: (i) verification of requirements set out in the EMP for the current stage of works; (ii) verification of the Contractor's documents related to performance

of requirements set out in the EMP; (iii) routine inspections in the works area; (iv) activities indicated in Appendix 2 to the EMP; and (v) on-going arrangements with representatives of the Engineer and of the Investor.

- a) In the reporting period, the Contractor was implementing 119 (99.2%) monitoring measures, including:
  - 119 (99.2%) measures were implemented to the extent required in the reporting period (items 1-9, 11-120 in Appendix 2 to the EMP);
  - none of the measures (0%) were implemented partially.
- b) In the reporting period, there were no instances determined of lack of implementation of any monitoring measures assigned to the Contractor, including:
  - none of the measures were finally completed in the previous reporting periods;
  - the implementation of no measure was not unnecessary in the reporting period;
  - there were no instances determined of lack of implementation of any measures required in the reporting period.

Monitoring measures were implemented by the Contractor with involvement of experts from the Contractor's environmental team, including the Coordinator of the Environmental Team and the H&S Coordinator.

Conclusions from the monitoring measures carried out are presented in chapter 5.2.4.

### **5.2.2 Engineer's/Consultant's Measures**

In the reporting period, the Engineer/Consultant was implementing monitoring measures for implementation of mitigation measures, as described in Appendix 2 to the EMP. Monitoring was performed by the following means: (i) verification of requirements set out in the EMP for the current stage of works; (ii) verification of the Contractor's and Investor's documents related to performance of requirements set out in the EMP; (iii) routine inspections in the works area; (iv) measures indicated in Appendix 2 to the EMP, and (v) on-going arrangements with representatives of the Contractor and of the Investor.

- a) In the reporting period, the Engineer/Consultant was implementing 120 (100%) monitoring measures, including:
  - 120 (100%) measures were implemented to the extent required in the reporting period (items 1-120 in Appendix 2 to the EMP);
  - none of the measures (0%) were implemented partially.
- b) In the reporting period, there were no instances determined of lack of implementation of any monitoring measures assigned to the Engineer/Consultant, including:
  - none of the measures were finally completed in the previous reporting periods;
  - performance of no measure was not unnecessary in the reporting period;

- there were no instances determined of lack of implementation of any measures required in the reporting period.

Furthermore, in the reporting period, the Engineer/Consultant supervised the implementation of 120 monitoring measures assigned to the Contractor in accordance with Appendix 2 to the EMP.

Monitoring and supervision measures, to the extent covered by the EMP, were implemented by the Engineer/Consultant with involvement of selected experts from the Engineer's/Consultant's environmental team.

Conclusions from the monitoring measures carried out are presented in chapter 5.2.4.

### **5.2.3 Investor's Measures**

In the reporting period, the Investor was implementing monitoring measures for implementation of mitigation measures, as described in Appendix 2 to the EMP. Monitoring was performed by the following means: (i) verification of requirements set out in the EMP for the current stage of works; (ii) verification of the Contractor's and Engineer's documents related to performance of requirements set out in the EMP; (iii) routine inspections in the works area; (iv) measures indicated in Appendix 2 to the EMP; and (v) on-going arrangements with representatives of the Contractor and of the Engineer.

- a) In the reporting period the Investor was implementing 2 (1.7%) monitoring measures, including:
  - these measures were completed to the extent required for the reporting period (items 10, 110 in Appendix 2 to the EMP).
- b) In the reporting period, there were no instances determined of lack of implementation of any monitoring measures assigned to the Investor.

Furthermore, in the reporting period, the Investor supervised the implementation of 120 monitoring measures assigned to the Contractor and to the Engineer in accordance with Appendix 2 to the EMP.

Monitoring and supervision measures, to the extent covered by the EMP, were implemented by the Investor with involvement of Environmental Expert from PIU and Technical Expert (Supervision Inspector).

Conclusions from the monitoring measures carried out are presented in chapter 5.2.4.

### **5.2.4 Conclusions from the implementation of monitoring measures**

According to the information provided by the Contractor and the Engineer's and the Investor's information, no problems with the implementation of monitoring measures listed in Appendix 2 to EMP were found in the reporting period.

## 6 SUMMARY

This document presents a report on the implementation of measures listed in the Environmental Management Plan (EMP) for the project: Contract 3B.2 „Flood Protection of Tarnobrzeg” under the Odra and Vistula Flood Management Project (OVFMP).

The report concerns the measures carried out in the period:

- from the date of commencement of the works by the Contractor of the Contract 3B.2 (i.e. from April 1, 2019 – works commencement with an entry in the logbook);
- to the date of substantial completion of the works covered by the Contract specified in the last Taking-Over Certificate issued for the above-mentioned contract (i.e. to December 25, 2020).

In the reporting period, the Contractor carried out construction works in the scope covered by the Contract (see description in chapter 1), including 114 mitigation measures specified in the EMP (see description in chapter 5.1.1), monitored the implementation status of 119 mitigation measures specified in the EMP (see description in chapter 5.2.1) and participated in other environmental, social, health & safety events (listed in chapter 2.1).

In the reporting period, the Engineer/Consultant supervised construction works carried out under Contract 3B.2, including implemented individual measures specified in the EMP in the scope assigned to the Engineer/Consultant (see description in chapter 5.1.2), monitored the implementation status of 120 mitigating measures specified in the EMP (see description in chapter 5.2.2) and participated in other environmental, social, health & safety events (as listed in chapter 2.2).

In the reporting period, the Investor performed activities assigned to him related to the implementation of Contract 3B.2, including implemented individual measures specified in the EMP within the scope assigned to the Investor (see description in chapter 5.1.3), monitored the implementation status of 2 mitigating measures specified in the EMP (see description in chapter 5.2.3) and participated in other environmental, social, health & safety events (as listed in chapter 2.3).

As a result of monitoring measures carried out by the Contractor, Engineer and Investor, it was found that during the reporting period:

- a) 115 out of 120 mitigation measures specified in Appendix 1 to the EMP were implemented, including:
  - in the case of 91 measures, no problems with their implementation were found,
  - in the case of 24 measures, problems with their implementation were found;

- b) 5 out of 120 mitigating measures specified in Appendix 1 to the EMP were not implemented  
(there was no need to implement the above-mentioned measures during the Contract performance period);
- c) 120 out of 120 monitoring measures from Appendix 2 of the EMP were implemented, including:
  - all measures were completed to the extent required in the reporting period;
  - none of the measures were completed in the previous reporting periods.

## 7 SOURCE MATERIALS

- 1) Environmental Impact Assessment Report for the project entitled:  
*„The Vistula River – stage 2 - extension of the right embankment of the Vistula River at a length of 13.959 km, the right embankment of the San River at a length of 2.193 km and the left embankment of the Łęg River at a length of 0.112 km, in the Gorzyce commune and the Radomyśl nad Sanem commune, Podkarpackie voivodeship”.*  
FPP Consulting Sp. z o.o., Warsaw, May 2014.
- 2) Decision of the Regional Director for Environmental Protection in Rzeszów from September 7, 2016, Ref. no. WOOŚ.4233.24.2013.MG.157 on environmental conditions of the approval for the implementation of the project entitled: *„The Vistula River – stage 2 - extension of the right embankment of the Vistula River at a length of 13.959 km, the right embankment of the San River at a length of 2.193 km and the left embankment of the Łęg River at a length of 0.112 km, in the Gorzyce commune and the Radomyśl nad Sanem commune, Podkarpackie voivodeship.*
- 3) *Environmental Management Plan for the Contract 3B.2.* Project Implementation Unit OVFMP in Regional Water Management Authority in Rzeszów, Consultant of Regional Water Management Authority in Rzeszów. Rzeszów, February 2018.
- 4) *Work Progress Reports* submitted by the Contractor of the Contract 3B.2 in the subsequent months of the reporting period.
- 5) *Contract Engineer's Monthly and Quarterly Reports*, for subsequent months and quarters in the period of service provision *„Design and construction supervision. Project management, technical assistance and support for project implementation units in the implementation of the Odra and Vistula Flood Management Project,, - Contract no. 5.2.*

## **8 LIST OF APPENDICES**

Appendix no. 1. *Checklist for implementation of measures listed under Appendices 1 and 2 to the EMP for Contract 3B.2.*

Reporting period: 04/01/2019 – 12/25/2020