

FINAL REPORT
ON IMPLEMENTATION OF MEASURES
DETERMINED IN THE ENVIRONMENTAL MANAGEMENT PLAN
FOR THE CONTRACT 3B.1/1

Odra-Vistula Flood Management Project

OVFMP Subcomponent	3B Protection of Sandomierz and Tarnobrzeg
Contract Task	3B.1/1 Flood Protection Sandomierz – completion of Tasks 3 and 4
Investor / Project Implementation Unit	State Water Holding Polish Waters Regional Water Management Authority in Cracow 22. Marszałka J. Piłsudskiego Street, 31-109 Cracow, Poland
Project Implementation Office (PIO)	Project Implementation Office in Cracow – branch in Kielce 5. Robotnicza Street, 25-662 Kielce, Poland
Contractor of Works	MELBUD Spółka Akcyjna 4. Składowa Street, 86-300 Grudziądz, Poland
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INTRODUCTION

This paper, as developed by the Contract Engineer within the framework of Consulting Services Contract no. 5.2 *Design and Construction Supervision. Project Management, Technical Assistance and Training, Technical Support for the Project and Strengthening of PIU's Institutional Capacity*, presents a final report on implementation of measures determined in the Environmental Management Plan (EMP) for Works Contract 3B.1/1 *Flood Protection Sandomierz – completion of Tasks 3 and 4*¹.

The report covers the following period:

- from the Commencement Date for the Works under Contract 3B.1/1 (i.e. **from February 11, 2020**);
- to the completion date for the works considered as essential, as results from the Time for Completion for the aforementioned Contract (i.e. **to December 31, 2022**).

The following was presented for the Contract:

- basic information on Contract 3B.1/1 (including e.g. the scope of works and basic deadlines for the Contract);
- basic information on the Environmental Management Plan for Contract 3B.1/1;
- organizational system for supervision over implementation of the Environmental Management System;
- status of implementation for mitigation measures listed in Appendix 1 to the EMP;
- status of implementation for monitoring measures listed in Appendix 1 to the EMP;
- description of other measures and events associated with the ESHS;
- summary.

¹ Contract 3B.1/1 *Flood Protection Sandomierz – completion of Tasks 3 and 4* has been concluded due to termination of Contract 3B.1 *Flood Protection Sandomierz* by the Investor in the scope of parts of Tasks 3 and 4 not implemented so far (in the 4th quarter of 2019). Since then, only Tasks 1, 2, 5 and 6 remain under Contract 3B.1. On January 29, 2020 the remaining range of Tasks 3 and 4 was transferred to a new Contract 3B.1/1. In case of environmental protection Contract 3B.1/1 is implemented based upon the same Environmental Management Plan (EMP), which was binding priorly for Contract 3B.1. Therefore, the term ***Environmental Management Plan for Contract 3B.1/1*** applied in this report shall be each time considered as the: ***Environmental Management Plan for Contract 3B.1 implemented in the scope of objects no. 3 and 4 (hereinafter referring to Tasks 3 and 4 or Subtasks 3 and 4)***.

1 BASIC INFORMATION ON CONTRACT 3B.1/1

Works Contract 3B.1/1 *Flood Protection Sandomierz – completion of Tasks 3 and 4* is implemented under *Odra-Vistula Flood Management Project* (OVFM Project), as a part of *Component 3 Flood Protection of the Upper Vistula* and *Subcomponent 3B Protection of Sandomierz and Tarnobrzeg*.

Contract 3B.1/1 was concluded in January 2020, due to the Investor's withdrawal from the Contract 3B.1 *Flood Protection Sandomierz* (started in November 2017), in the scope of parts of Tasks 3 and 4 not implemented so far (the withdrawal took place in the 4th quarter of 2019).

From that moment the scope of Contract 3B.1 has been limited to Tasks 1, 2, 5 and 6 only (implemented until the end of December 2020), and implementation of Tasks 3 and 4 has been transferred to a separate Contract 3B.1/1 *Flood Protection Sandomierz – completion of Tasks 3 and 4* (commenced in January 2020).

Basic information about the Contract 3B.1/1 are presented below.

Name of the Contract:

Flood Protection Sandomierz – completion of Tasks 3 and 4.

Contractor:

MELBUD Spółka Akcyjna [Joint Stock Company]
(4. Składowa Street, 86-300 Grudziądz, Poland).

Scope of Works:

Contract 3B.1/1 concerns the completion of works previously carried out under Contract 3B.1, in the scope of two Tasks (also referred to as Subtasks):

Subtask 3 *“Expansion of the surrounding embankment protecting Glassworks and a Housing Estate against the flood waters in the town of Sandomierz together with an extension of the embankment of the Vistula River from the Lwowska Street to intersection of Koćmierzów embankment – completion”.*

Subtask 4 *“Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400 – completion”.*

Basic dates for the Contract:

Agreement signing date: January 29, 2020

Date of handing over the construction site: February 5, 2020

Commencement Date for the Works: February 11, 2020

Time for Completion:	December 31, 2022 (according to Annex no. 3)
Signing date for Annex no. 1:	November 24, 2020
Signing date for Annex no. 2:	September 13, 2021
Signing date for Annex no. 3:	October 21, 2022
Completion Date for the Works (according to the Time for Completion):	December 31, 2022

2 BASIC INFORMATION ON THE EMP FOR CONTRACT 3B.1/1

According to the information given in a footnote in the introduction to this *Report*, in the field of environmental protection Contract 3B.1/1 is implemented on the basis of the same Environmental Management Plan, that was previously in force for Contract 3B.1¹. This plan has been developed in October 2016 (final version). On October 31, 2016 the World Bank issued “No Objection” acceptance approving the Environmental Management Plan as one of documents for the bidding procedure applied to select the Contractor of construction works under the Contract. It is a document systematizing actions undertaken within the framework of the Contract and obliging all units participating in implementation of the Contract to observe the provisions given therein. A detailed description of contract implementation conditions referring to the environmental management has been developed in the form of appendices to the EMP – Appendix 1 containing the *Mitigation Measures Plan* (see description in chapter 2.1, below), and Appendix 2 containing the *Monitoring Measures Plan* (see description in chapter 2.2, below),.

2.1 MITIGATION MEASURES DETERMINED IN APPENDIX 1 TO THE EMP

Appendix 1 to the EMP for Contract 3B.1/1 contains 140 mitigation measures, which are to prevent and limit adverse impact of the investment on the environment. Those measures result from contents of the decision on environmental conditions, as issued for the Contract in question (given in Appendix 4 to the EMP), as well as from procedural requirements of the World Bank and additional conditions determined during the works on development of the EMP. Table of mitigation measures given in Appendix 1 to the EMP described particular measures and determined locations of their implementation, as well as the units responsible for their implementation.

Mitigation measures listed in Appendix 1 to the EMP belong to the following 7 categories:

- a) rules connected with property acquisition
(items no. 1-3 under Appendix 1 to the EMP);
- b) measures to be performed prior to works commencement
(items no. 4-15 under Appendix 1 to the EMP);
- c) requirements concerning the access routes to the construction sites
(items no. 16-29 under Appendix 1 to the EMP);
- d) organization of the site facilities, warehouses and storage yards
(items no. 30-45 under Appendix 1 to the EMP);
- e) requirements for cutting out trees and shrubs
(items no. 46-49 under Appendix 1 to the EMP);

¹ Final Report on implementation of EMP for the Contract 3B.1 (covering the period from November 17, 2017 to December 31, 2020), was prepared in May 2021 and received “No objection” from the World Bank on August 9, 2021.

- f) requirements at the stage of works implementation (items no. 50-138 under Appendix 1 to the EMP);
- g) requirements after completion of works (items no. 139-140 under Appendix 1 to the EMP).

Contents of individual mitigation measures given in Appendix 1 to the EMP have been quoted in the *Check List* forming *Appendix no. 1* to this report.

2.2 MONITORING MEASURES DETERMINED IN APPENDIX 2 TO THE EMP

Appendix 2 to the EMP for Contract 3B.1/1 contains a set of 140 monitoring measures, which are to monitor implementation of mitigation measures described in Appendix 1. A tabulated summary of monitoring measures, as given in Appendix 2 to the EMP, contains the same breakdown into categories as in case of the mitigation measures. The table of monitoring measures determines e.g. location, method, time, and frequency of monitoring, as well as the units responsible for its implementation.

3 SYSTEM OF SUPERVISION OVER IMPLEMENTATION OF MEASURES DETERMINED IN THE EMP FOR CONTRACT 3B.1/1

Supervision over implementation of mitigation measures and monitoring measures determined in the EMP for Contract 3B.1/1 was performed on the level of all of the organizational units participating in the Contract implementation, i.e. Contractors, Engineer, Project Implementation Office (PIO), and Project Coordination Unit (PCU). Information on the scope of performance for individual units is presented below.

3.1 CONTRACTOR

A person directly responsible for implementation of measures determined in the EMP on the Contractor's side was the Site Manager. In order to assure assistance to the Site Manager in the range of implementing the EMP, an environmental team has been appointed in the Contractor's team, and it consisted of five experts and an Environmental Supervision Coordinator. The task of that person was an ongoing cooperation with the Site Manager, with the remaining members of the Contractor's personnel, and with the environmental management expert of the Engineer's team in securing implementation of the EMP conditions, as well as provision of ongoing reporting in that range. Furthermore, in accordance with items no. 135 and 134 under Appendix 1 to the EMP, the Contractor assured participation of the team of archaeological supervisors and sapper supervisors in the scope compliant with the EMP requirements.

After completing each month the Environmental Supervision Coordinator summarized the current status of implementation of individual EMP conditions (in the form of a checklist). Information on the implementation of the EMP was provided to the environmental management expert of the Engineer's team, along with relevant appendices (including e.g. conclusions, opinions of the environmental team, etc.).

3.2 ENGINEER

Direct supervision over implementation of the EMP conditions by the Engineer's team was done by the environmental management expert cooperating in that range with the Resident Engineer, supervising inspectors, and other members of the Engineer's team providing investor's supervision over implementation of the investment. The environmental management expert was in an ongoing contact with the Site Manager and with the Environmental Supervision Coordinator of the Contractor's team, while establishing the range of conditions to be necessarily met on a given stage of works, supervising the implementation status for particular EMP conditions, participating in solving ongoing issues, and performing inspections on work sites. After completing each and every reporting period (month and quarter), the environmental management expert was verifying environmental documentation of the Contractor and developing reports, which were subsequently handed over to the Project Implementation Office.

3.3 PROJECT IMPLEMENTATION OFFICE (PIO)

Direct supervision over implementation of the EMP conditions by the Project Implementation Office (PIO) was done by the Technical and Environmental Issues Expert, who cooperated in that range with the PIO Manager, with other members of the PIO team, as well as with other organization units of the RZGW in Cracow. The Technical and Environmental Issues Expert and the PIO Manager were in a direct contact with the environmental management expert of the Engineer's team, while supervising the implementation status for particular EMP conditions and participating in solving of the ongoing issues. After completing each and every reporting period (month and quarter), the Technical and Environmental Issues Expert and the PIO Manager were verifying environmental documentation of the Contract, and subsequently handed it over to the Project Coordination Unit (in the scope compliant with the EMP conditions).

3.4 ODR-VISTULA FLOOD MANAGEMENT PROJECT COORDINATION UNIT (PCU)

Direct supervision over implementation of the EMP conditions by the Project Coordination Unit was done by the Environmental Management Expert, who cooperated in that range with other members of the PCU team. The expert was in a direct contact with the PIO Manager and with the Technical and Environmental Issues Expert of the PIO team. He was also cooperating with persons responsible for implementation of the EMP on the side of remaining organizational units of the investment process, i.e. the environmental management expert of the Engineer's team, as well as the Site Manager and the Contractor's Environmental Supervision Coordinator. The Environmental Management Expert was supervising the implementation status for particular EMP conditions, while participating in solving of ongoing issues, and participating in site inspections. After completing each quarterly reporting period, he was verifying environmental documentation handed over by the PIO, and was developing contents for PCU reports, which were subsequently submitted to the World Bank.

4 IMPLEMENTATION STATUS FOR MITIGATION MEASURES UNDER APPENDIX 1 TO THE EMP

In accordance with contents of Appendix 1 to the EMP for Contract 3B.1/1, units responsible for implementation of mitigation measures listed in Appendix 1 to the EMP are as follows: **the Contractor (140 measures:** items no. 1-140 under Appendix 1 to the EMP), **the Engineer (1 measure:** item no. 138 under Appendix 1 to the EMP), and **the Investor (1 measure:** item no. 138 under Appendix 1 to the EMP). In total, the EMP for Contract 3B.1/1 envisages implementation of 140 mitigation measures¹, including at least 115 measures to be implemented within the reporting period (in case of remaining 25 measures it was not necessary to implement them – see: below).

4.1 ACTIONS OF THE CONTRACTOR

According to information presented in monthly reports and in quarterly reports on implementation of measures determined in the EMP:

- a) within the reporting period the Contractor implemented 115 (82.1%) mitigation measures, including:
 - 77 (55.0%) measures were implemented in the scope required within the reporting period (items no. 8, 10, 11, 16, 20, 21, 23, 25, 27, 30, 32, 33, 34, 36, 37, 39, 40, 42, 43, 44, 45, 46, 47, 48, 51, 57, 61, 63, 64, 66, 69, 70, 71, 72, 74, 75, 77, 78, 80, 82, 83, 84, 85, 86, 88, 89, 94, 95, 97, 98, 100, 101, 102, 106, 107, 110, 111, 112, 113, 116, 118, 119, 121, 123, 125, 126, 127, 128, 129, 130, 132, 134, 135, 137, 138, 139, 140 under Appendix 1 to the EMP);
 - in case of 38 (27.1%) measures issues and / or inconsistencies associated with their implementation – as discussed in chapter 4.4 – were identified (items no. 1, 2, 3, 6, 17, 18, 19, 22, 24, 26, 28, 29, 31, 38, 41, 50, 52, 53, 54, 55, 56, 58, 59, 60, 62, 65, 67, 68, 73, 76, 87, 114, 115, 117, 120, 122, 124, 136 under Appendix 1 to the EMP).
- b) within the reporting period the Contractor was not implementing 25 (17.9%) mitigation measures, including the following:
 - 12 (8.6%) measures not related to the current scope of Contract 3B.1/1² (items no. 14, 15, 35, 49, 81, 90, 91, 92, 93, 99, 103, 105 under Appendix 1 to the EMP);
 - 1 (0.7%) measures finally completed prior to the commencement of works (item no. 12 under Appendix 1 to the EMP);
 - implementation of 12 (8.6%) measures was not necessary throughout the entire period included in this report

¹ Contents of particular mitigation measures given in Appendix 1 to the EMP have been quoted in the *Check List* forming *Appendix no. 1* to this report.

² These are mitigation measures referring only to Subtasks 1, 2, 5 and 6, previously implemented under Contract 3B.1, but not falling within the scope of Contract 3B.1/1 (see also the explanation regarding the scope of Contract 3B.1/1, given in chapter 1 and in a footnote in the introduction to this *Report*).

(items no. 4, 5, 7, 9, 13, 79, 96, 104, 108, 109, 131, 133 under Appendix 1 to the EMP);

- cases of missing implementation for measures required within the reporting period were not identified.

Mitigation measures were implemented by the Contractor at participation of, among others, Site Manager and the experts from the Contractor's environmental team. Within the reporting period the team consisted of the following persons: environmental supervision coordinator (simultaneously performing the function of coordinator for the environmental team, and the expert botanist, ornithologist, and chiropterologist), expert botanist, expert entomologist, expert herpetologist and theriologist, expert ornithologist, expert archaeologist, and H&S coordinator and sapper.

Mitigation measures were established (if it was required by the conditions of Contract and / or the EMP) and supervised by the Engineer's team (with participation of the following persons: Environmental Management Expert, Assisting Environmental Protection Expert, Assisting H&S Expert, Supervising Inspectors, and Resident Engineer), and by the Investor's team (with participation of the following persons: Technical and Environmental Issues Expert, and PIO Manager).

4.2 ACTIONS OF THE ENGINEER

According to information presented in monthly reports and in quarterly reports on implementation of measures determined in the EMP:

- a) within the reporting period the Engineer was implementing 1 (0.7%) mitigation measure, including:
 - 1 (0.7%) measure was implemented in the scope required within the reporting period (item no. 138 under Appendix 1 to the EMP).
 - in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.
- b) cases of missing implementation for mitigation measures assigned to the Engineer within the reporting period were not identified.

Mitigation measures were implemented by the Engineer at participation of selected experts of the Engineer's team (composition of the team has been informed in chapter 4.1).

4.3 ACTIONS OF THE INVESTOR

According to information presented in monthly reports and in quarterly reports on implementation of measures determined in the EMP:

- a) within the reporting period the Investor was implementing 1 (0.7%) mitigation measure, including:
 - 1 (0.7%) measure was implemented in the scope required within the reporting period (item no. 138 under Appendix 1 to the EMP).

- in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.
- b) cases of missing implementation for mitigation measures assigned to the Investor within the reporting period were not identified.

Mitigation measures were implemented by the Investor at participation of selected members of the PIO's team (composition of the team has been informed in chapter 4.1).

4.4 ISSUES REFERRING TO IMPLEMENTATION OF MITIGATION MEASURES LISTED IN APPENDIX 1 TO THE EMP

According to information provided in monthly reports and in quarterly reports on implementation of measures determined in the EMP, the following issues and / or inconsistencies associated with implementation of 38 mitigation measures from Appendix 1 to the EMP for Contract 3B.1/1 (in order compliant with numbers of items under Appendix 1 to the EMP) were identified:

- 1) Acquisition of land and traffic of vehicles beyond the boundaries of the construction site and related damages to herbal plants beyond designated technological roads and beyond the boundaries of the construction site

[related to items no. 1, 3, 19, 50, 52 and 87 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 4th quarter of 2021 sustained cases of land acquisition beyond currently valid splitting lines and beyond established sites of temporary acquisition, as well as sustained cases of damages to herbal plants – resulting from earlier land acquisition and traffic of vehicles and machines beyond the valid splitting lines and beyond the established temporary acquisition sites – were identified. Most of these cases arose during the operation of the previous Contractor of Subtasks 3 and 4 and were described in *Monthly Reports on EMP Implementation* for Contract 3B.1 for the period from February 2018 to January 2020. The Engineer has been drawing the Contractor's attention to the ban of acquiring the land located beyond the construction site's splitting lines (except for agreed temporary acquisition sites) and to the necessary protection of plants growing beyond the established technological roads and beyond the performance sites.

The events listed above occurred beyond occurrence sites of protected and / or rare species and environmental habitats (according to the results of environmental inventories for the construction site, as attached to *Monthly Reports on EMP Implementation* for Contract 3B.1 in the years 2017-2018), and therefore they did not form hazard to valuable resources of the natural environment.

- 2) Problems with implementing the recommendations included in *Traffic Organization Plans*

[related to items no. 2, 18, 24, 26 and 115 under Appendix 1 to the EMP]:

From the 2nd quarter of 2020 to the 4th quarter of 2021, cases were identified with ensuring safety on the public roads near the entrances to and exits from the construction site,

resulting from incomplete implementation of the recommendations included in the agreed *Traffic Organization Plans* (e.g. lack of persons managing the traffic when performing maneuvers requiring periodic occupation of the road lane near the entrances to and exits from the construction site). The Engineer drew the Contractor's attention that it is necessary to strictly adhere to the recommendations stated in all agreed *Traffic Organization Plans* (in particular to the maintenance of temporary markings of public roads near the entrances to and exits from the construction site, the provision of persons managing the traffic during maneuvers connected with periodic occupation of the road lane, etc.).

3) Insufficient protection of trees and shrubs

[related to items no. 6 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 3rd quarter of 2022 cases of the lack of proper protection for trees and shrubs against potential damage were identified (e.g. sustained cases of storing the construction materials in a direct neighborhood of trees and shrubs, which shall not be logged and which were not provided with proper protection against damaging, cases of no protection for trees and shrubs growing in a direct vicinity of performance sites, technological roads, etc.). The Engineer was drawing the Contractor's attention to the aforementioned inconsistencies and to the related hazard of damage to arborescent plants. The Contractor was – on an ongoing basis – supplementing the protection for trees and shrubs. Cases of adverse impact of the aforementioned events on health status of trees and shrubs were not identified within the reporting period.

4) Cases of lack of required *Traffic Organization Plans*

[related to items no. 17, 26, 28 and 115 under Appendix 1 to the EMP]:

In the reporting period, the Contractor had the agreed *Traffic Organization Plans* for the majority of sections of public roads used for the purpose of works implementation and where it was required to prepare such plans. From the 1st quarter of 2021 to the 2nd quarter of 2021, cases were identified of using the exits from the construction site not covered by the agreed *Traffic Organization Plans*. The Engineer has requested the Contractor to supplement and update the required documentation in respect of the *Traffic Organization Plans*. On 06/25/2021, the Contractor submitted for the Engineer's approval *Traffic Organization Plans* for municipal road no.334023T Sońniczany-Swieżyce (Subtask 4) and for municipal roads no. 374073T, 374103T and 374156T in Sandomierz (Subtask 3).

5) Polluting of access roads to the construction site

[related to items no. 22, 58, 62 and 115 under Appendix 1 to the EMP]:

The Contractor was undertaking actions to keep the proper technical condition (including maintenance of cleanliness) of the access roads to the construction site. Despite the measures undertaken, from the 2nd quarter of 2020 to the 4th quarter of 2021 and from the 2nd quarter to the 3rd quarter of 2022 cases of polluting the access roads to the construction site with sand and mud brought by vehicles were identified. The Engineer has regularly drawn the Contractor's attention to the necessary maintenance of the access roads clean, e.g. through implementation of measures listed in item no. 62 under Appendix 1 to the EMP.

6) Cases of exceeding the permissible weight of vehicles on public roads

[related to items no. 29 and 115 under Appendix 1 to the EMP]:

From the 2nd quarter of 2021 to the 4th quarter of 2021, cases were found where the permitted weight of vehicles transporting earth masses on public roads was exceeded. The Engineer has requested the Contractor to comply with the applicable weight limits for vehicles on public roads used to transport construction materials in connection with the Contract execution.

7) Lack of order on the construction site

[related to items no. 31 and 115 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 4th quarter of 2022 cases of insufficient Contractor's care in the aforementioned scope (e.g. chaotic storage of construction materials, leaving the waste outside of containers, etc.) were identified. The Contractor has been called to remove the identified inconsistencies.

8) Storage of construction materials underneath tree crowns

[related to items no. 38 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 4th quarter of 2021 sustained cases of construction materials' storage within the projection of crowns of trees, which shall not be logged, were identified (e.g. on the floodplains of Koprzywianka, Subtask 4 – mostly as a result of activities of the previous Contractor, under Contract 3B.1). The Engineer has been drawing the Contractor's attention to the aforementioned inconsistencies and to the risk of damaging arborescent plants associated with them on an ongoing basis. Adverse impact of the aforementioned situation on the health conditions of trees and shrubs was not identified within the reporting period.

9) Improper handling of waste

[related to item no. 41 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 4th quarter of 2022 cases of waste management against the requirements of the EMP were identified (e.g. presence of waste beyond designated sites). The Contractor has been called to remove the identified inconsistencies.

10) Defects in the documentation for construction equipment

[related to items no. 53, 120 and 115 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 2nd quarter of 2022 cases of the Contractor using equipment not meeting all formal requirements necessary for allowing it for the use were identified. The Engineer admonished the Contractor about necessary application of the equipment meeting all of the requirements in the aforementioned scope only.

11) Excessive emission of dust within the construction site and its surroundings

[related to items no. 54, 59, 60, 62 and 115 under Appendix 1 to the EMP]:

The Contractor has been undertaking actions to protect surroundings of the work site and access roads against emission of dust, in accordance with the conditions determined in the EMP. Despite the actions undertaken by the Contractor, from the 2nd quarter to the 3rd quarter of 2020 and from the 2nd quarter to the 3rd quarter of 2021 cases of increased

emission of dust from wheels of vehicles and construction machines were identified within the construction site and at access roads in vicinity of the work site. The Engineer has been drawing the Contractor's attention to the necessary reduction of dust emission, e.g. through reducing the speed of vehicles within the construction site and systematic sprinkling of the technological roads, on an ongoing basis.

12) Pollution of soil and water environment

[related to items no. 54 and 73 under Appendix 1 to the EMP]:

In the 3rd quarter of 2021 within the site at Subtask 3 there was a small leakage of technological fluid from a construction vehicle to the ground. The Contractor was protecting the event site on an ongoing basis using absorbents and removed the polluted soil. The event described has neither caused pollution of surface water nor led to a serious hazard to the environment.

In the 3rd quarter of 2022 within the site at Subtask 3, a case of surface water contamination with oil derivative substances was identified – local contamination of the water surface in the port channel near the flood gate with aerosol deposits of paints used for painting sheet pile walls. The Contractor immediately removed the created contaminations and provided the nature supervision's opinion concerning the environmental consequences of the event described. Due to the small scale of the contamination and the preventive measures taken immediately, the event discussed did not cause any negative impact on the abiotic and biotic environment.

13) Repair of construction machinery within the embanked area of Koprzywianka

[related to items no. 55 and 56 under Appendix 1 to the EMP]:

In the 1st quarter of 2021, , a case of repair of a broken construction machine was found within the embanked area of Koprzywianka, near the road bridge on the district road no. 0804T Żłota-Zawierzbie. The Engineer reminded the Contractor of the obligation to carry out repairs only at the locations referred to in items no. 55 and 56 under Appendix 1 to the EMP. The ground and water environment at the work sites was not contaminated as a result of the said event.

14) Refueling of construction vehicles within the embanked area of Koprzywianka

[related to items no. 56 and 122 under Appendix 1 to the EMP]:

In the 2nd quarter of 2021, cases of refueling of construction vehicles within the embanked area of Koprzywianka were found. The Contractor was requested to comply with the prohibition to refuel construction vehicles and machinery within the embanked areas of rivers.

15) Issues with protection of collected top-soil's heaps against devastation

[related to items no. 67 and 68 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 4th quarter of 2021 persistent cases of inconsistencies at storage of top-soil to be re-embedded (e.g. no signing for heaps of top-soil and polluting the top-soil). The Contractor has been called to improve the protection and to complete the marking of top-soil heaps.

- 16) Storage of top-soil in a direct neighborhood of the river-bed
[related to item no. 76 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 3rd quarter of 2021 in a part of work site at Subtask 4 (e.g. in upstream sections of the right Koprzywianka embankment – from the bridge at Sośniczany-Skotniki route) top-soil heaps were stored in a direct neighborhood of the river-bed, due to the small width of the available embanked-area. The Engineer has on an ongoing basis been drawing the Contractor's attention to the related potential risk of spoil sliding to the river-bed. The Contractor has been providing periodical stability inspections for heaps of top-soil on the riverside. Within the time of Contract implementation cases of impact of the aforementioned spoil on the level of water in the river were not identified.

- 17) Improper condition of construction site's signing,
including defects in protecting and signing of dangerous zones
[related to items no. 114, 117, 124, 136 and 115 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 2nd quarter of 2022 cases of missing signing and improper protection of sites that may pose risk to the health and life of people (e.g. sites with a risk of falling from height, sites near active power lines) were identified. The Contractor was called to remove the inconsistencies identified.

Furthermore, cases of missing information boards and other signing for the construction site or their bad condition were identified within the aforementioned period. The Contractor was improving the inconsistencies identified on an ongoing basis.

- 18) Accidents and near miss events on the construction site
[related to items no. 115 and 65 under Appendix 1 to the EMP]:

In the reporting period several accidents or near miss events involving the Contractor's employees occurred on the construction site (in June 2020, in December 2020, in August 2021, and in June 2022). Detailed information on the aforementioned events were given in chapter 6.6 of this *Report*.

- 19) Other issues related to H&S on the construction site
[related to item no. 115 under Appendix 1 to the EMP]:

From the 1st quarter of 2020 to the 4th quarter of 2022 cases of H&S issues described in this chapter under items no. 2, 4-7, 10, 11, 17 and 18 were identified.

Furthermore, in the aforementioned period other cases of insufficient Contractor's care for securing and keeping safety for the works performed (e.g. not observing H&S regulations during the works underneath active power lines, defects in providing the employees with personal protective equipment, and others) were also identified. Each time the Engineer was calling the Contractor to remove the inconsistencies identified, and the Contractor implemented appropriate remedial measures on an ongoing basis.

5 IMPLEMENTATION STATUS FOR MONITORING MEASURES UNDER APPENDIX 2 TO THE EMP

In accordance with contents of Appendix 2 to the EMP for Contract 3B.1/1, units responsible for implementation of monitoring measures listed in Appendix 2 to the EMP are as follows: **the Contractor (140 measures:** items no. 1-140 under Appendix 2 to the EMP), **the Engineer (140 measures:** items no. 1-140 under Appendix 2 to the EMP), and **the Investor (1 measure:** item no. 138 under Appendix 2 to the EMP). In total, the EMP for Contract 3B.1/1 envisages implementation of 140 monitoring measures¹, and all of the measures shall be implemented within the reporting period.

5.1 ACTIONS OF THE CONTRACTOR

Within the reporting period the Contractor was implementing measures associated with implementation monitoring for mitigation measures, as described in Appendix 2 to the EMP. The monitoring was implemented through the following: (i) verification of requirements determined under the EMP for the current stage of works; (ii) verification of Contractor's documents related to implementation of conditions under the EMP; (iii) ongoing inspections on site; (iv) actions listed under Appendix 2 to the EMP; and (v) ongoing establishments with representatives of the Engineer and of the Investor.

- a) Within the reporting period the Contractor has been implementing 140 (100%) monitoring measures, including the following:
 - 140 (100%) measures were implemented in the scope required within the reporting period (items no. 1-140 under Appendix 2 to the EMP);
 - in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.
- b) cases of missing implementation for monitoring measures assigned to the Contractor within the reporting period were not identified.

Monitoring measures were implemented by the Contractor at participation of the Contractor's personnel listed in chapter 4.1.

5.2 ACTIONS OF THE ENGINEER

Within the reporting period the Engineer was implementing measures associated with implementation monitoring for mitigation measures, as described in Appendix 2 to the EMP. The monitoring was implemented through the following: (i) verification of requirements determined under the EMP for the current stage of works; (ii) verification of Contractor's and Investor's documents related to implementation of conditions under the EMP; (iii) ongoing inspections on site; (iv) actions listed under Appendix 2 to the EMP; and (v) ongoing establishments with representatives of the Contractor and of the Investor.

¹ Those measures referred to the implementation monitoring for particular mitigation measures given in Appendix 1 to the EMP, contents of which have been quoted in the *Check List* forming *Appendix no. 1* to this report.

- a) Within the reporting period the Engineer has been implementing 140 (100%) monitoring measures, including the following:
- 140 (100%) measures were implemented in the scope required within the reporting period (items no. 1-140 under Appendix 2 to the EMP);
 - in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.
- b) cases of missing implementation for monitoring measures assigned to the Engineer within the reporting period were not identified.

Furthermore, within the reporting period the Engineer was also supervising implementation of 140 monitoring measures assigned, in accordance with Appendix 2 to the EMP, to the Contractor.

Monitoring measures and supervising measures in the range referring to the EMP were implemented by the Engineer at participation of selected experts of the Engineer's team (composition of the team has been given in chapter 4.1).

5.3 ACTIONS OF THE INVESTOR

Within the reporting period the Investor was implementing measures associated with implementation monitoring for mitigation measures, as described in Appendix 2 to the EMP. The monitoring was implemented through the following: (i) verification of requirements determined under the EMP for the current stage of works; (ii) verification of Contractor's and Engineer's documents related to implementation of conditions under the EMP; (iii) ongoing inspections on site; (iv) actions listed under Appendix 2 to the EMP; and (v) ongoing establishments with representatives of the Contractor and of the Engineer.

- a) Within the reporting period the Investor has been implementing 1 (0.7%) monitoring measure, including the following:
- 1 (0.7%) measure was implemented in the scope required within the reporting period (item no. 138 under Appendix 2 to the EMP);
 - in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.
- b) cases of missing implementation for monitoring measures assigned to the Investor within the reporting period were not identified.

Furthermore, within the reporting period the Investor was also supervising implementation of 140 monitoring measures assigned, in accordance with Appendix 2 to the EMP, to the Contractor and to the Engineer.

Monitoring measures and supervising measures in the range referring to the EMP were implemented by the Investor at participation of members of the PIO's team listed in chapter 4.1.

5.4 ISSUES REFERRING TO IMPLEMENTATION OF MONITORING MEASURES LISTED IN APPENDIX 2 TO THE EMP

In accordance with information presented in monthly reports and in quarterly reports on implementation of measures determined in the EMP, issues with implementation of the monitoring measures listed in Appendix 2 to the EMP for Contract 3B.1/1 were not identified within the reporting period.

6 OTHER ACTIONS AND EVENTS RELATED TO THE ENVIRONMENT, LOCAL SOCIETY, HEALTH AND SAFETY

6.1 ACTIONS OF THE CONTRACTOR

Within the reporting period the Contractor has been carrying out construction works within the framework of Contract 3B.1/1, including e.g. implementation of particular measures determined in the Environmental Management Plan, as assigned to the Contractor.

Furthermore, within the reporting period the Contractor was implementing e.g. the following other measures referring to Contract 3B.1/1 and related to the environment, local society, health and safety:

- due to a threat of spreading coronavirus infections causing COVID-19 disease, from the 1st quarter of 2020 to the 4th quarter of 2022 the Contractor was providing the Engineer with weekly reports on situation referring to that threat for Contract 3B.1/1.

6.2 ACTIONS OF THE ENGINEER

Within the reporting period the Engineer was supervising construction works carried out within the framework of Contract 3B.1/1, including e.g. implementation of particular measures determined in the Environmental Management Plan, as assigned to the Engineer.

Furthermore, within the reporting period the Engineer was implementing e.g. the following other measures referring to Contract 3B.1/1 and related to the environment, local society, health and safety:

- due to a threat of spreading coronavirus infections causing COVID-19 disease, from the 1st quarter of 2020 to the 4th quarter of 2022 the Engineer was monitoring the situation on Contract 3B.1/1, due to the epidemic threat, and was providing the Investor with subsequent reports referring to the aforementioned threat.

6.3 ACTIONS OF THE INVESTOR

Within the reporting period the Investor was carrying out its activities associated with implementation of Contract 3B.1/1, including e.g. implementation of particular measures determined in the Environmental Management Plan, as assigned to the Investor, and was supervising the measures implemented by the Contractor and by the Engineer.

Furthermore, within the reporting period the Investor was implementing e.g. the following other measures referring to Contract 3B.1/1 and related to the environment, local society, health and safety:

- due to a threat of spreading coronavirus infections causing COVID-19 disease, from the 1st quarter of 2020 to the 4th quarter of 2022 the Investor was monitoring the situation on Contract 3B.1/1, due to the epidemic threat, including e.g. analyzing of further reports on the aforementioned threat, as provided by the Engineer.

6.4 OTHER ACTIONS

Not applicable to the reporting period.

6.5 EXCEPTIONAL EVENTS, THREATS AND CATASTROPHES

Not applicable to the reporting period.

6.6 ACCIDENTS

6.6.1 Accidents with participation of Contractor's employees

Within the reporting period the following accidents or near miss events suffered by employees of the Contractor happened on the work site for Contract 3B.1/1:

- on 06/25/2020 within the work site at Subtask 3, during works related to cutting a metal component (channel bar) with an angle grinder, the component being cut overturned and struck the foot of the worker performing the above work. A contusion of the foot was found as a result of medical examination, with no signs of a fracture, and the worker was sent on one week's sick leave. The Contractor informed the Engineer and Investor on the day of the event and on 07/09/2020 submitted an accident report to the Engineer concerning the above event. The Contractor's letters with information on the above event were presented in Appendix no. 3 to the *Monthly Report on EMP Implementation* for June 2020.
- on 12/28/2020 within the work site at Subtask 4, when a truck was driving onto the crest of the left-bank flood protection embankment of the Koprzywianka (upstream from the bridge on district road no. 0803T Szewce-Skotniki), a landslide occurred under the wheel of the truck, resulting in the truck tipping over onto its left side. The discussed event did not result in injury to the truck driver or other persons staying at the construction site, nor did it result in emissions of contaminants to the environment. The Contractor was informed of the said event by the subcontractor on 12/29/2020 and forwarded this information to the Engineer on the same day. On 12/30/2020, the Contractor submitted to the Engineer a written memo from the Health and Safety supervision concerning the above event (Contractor's letter with information concerning the above event was presented in Appendix no. 3 to the *Monthly Report on EMP Implementation* for December 2020).
- on 08/21/2021 within the work site at Subtask 3, a reserve electric power cable was damaged by an excavator during works connected with tidying up the area after performing the works on the anti-seepage barrier. The Contractor reported the damage to PGE and repair was made the same day. The discussed event did not result in injury to any persons staying at the construction site, nor did it result in emissions of contaminants to the environment. On 08/24/2021, the Contractor submitted to the Engineer a written memo concerning the above event (Contractor's letter with information concerning the above event was presented in Appendix no. 3 to the *Monthly Report on EMP Implementation* for August 2021).
- on 06/14/2022 within the work site at Subtask 3 while performing formwork works for a retaining wall, one of the workers lost his balance while stepping off the reinforced concrete structure of the retaining wall footing (height of approx. 35 cm). As a result, the worker's left leg slipped off the foot of the wall onto the surface of the concrete sub-

structure, leading to an ankle injury. The injured worker was immediately transported to the Hospital Emergency Department in Sandomierz, where an X-ray revealed a sprain and tear of the left leg ankle joint. The injured person was provided with medical help and granted medical leave until 07/05/2022. The worker continued to receive further treatment at the orthopedic clinic at his place of residence. The worker remained on sick leave until 07/21/2022. After the end of the sick leave period, the worker underwent the necessary medical examinations and returned to work on 07/25/2022. The results of the examination revealed the accident did not cause any permanent damage to the worker's health. During the period of the sick leave, the worker received sickness benefits at 100% of the base salary. In connection with the accident, the Contractor identified and applied the following preventive measures to minimize the risk of a similar accident occurring in the future: (i) reorganization of the workplace for the construction of the retaining wall on the embankment; (ii) reorganization of the place of storage of construction materials during work on the construction of the retaining wall on the retaining embankment; (iii) additional health and safety workplace instruction for construction of the retaining wall on the embankment. The implementation of the above recommendations was monitored on an ongoing basis by inspectors from the Engineer's team, who found no non-compliances. The PCU had found no inconsistencies with legal requirements or good practice in this scope.

The Contractor informed the Engineer and the Employer of the above event on 06/15/2022 in the morning. On 07/05/2022, the Contractor sent a written report to the Engineer and the Employer concerning the mentioned event. The Contractor's letter with information on the above event was presented in Appendix no. 3 to the *Monthly Report on EMP Implementation* for June 2022.

6.6.2 Accidents with participation of other people authorized to access the site

No accidents involving other people authorized to access the Contract implementation area were recorded within the reporting period.

6.6.3 Accidents with participation of outsiders

No accidents involving outsiders were recorded within the reporting period.

6.7 SECURING CONDITIONS OF PAYMENT AND WORK FOR THE PERSONNEL

Within the reporting period the Contractor was securing proper conditions of payment and work for the personnel, in accordance with binding provisions of the labour law in Poland.

6.8 PREVENTING CASES OF SEXUAL HARASSMENT AND MOBBING

Events associated with cases of sexual harassment and mobbing have not taken place within the reporting period.

7 SUMMARY

This report presents a summary on implementation of the measures determined in the Environmental Management Plan (EMP) for Works Contract 3B.1/1 *Flood Protection Sandomierz – completion of Tasks 3 and 4* within the framework of the *Odra-Vistula Flood Management Project* (OVFMP).

The report refers to the measures implemented in the following period:

- from the Commencement Date for the Works under 3B.1/1 (i.e. **from February 11, 2020**);
- to the completion date for the works deemed as essential, as results from the Time for Completion for the aforementioned contract (i.e. **to December 31, 2022**).

Within the reporting period the Contractor was carrying out the construction works in the range given in the contract (see: description in chapter 1), including e.g. implementation of 115 mitigation measures determined in the EMP (see: description in chapter 4.1), monitoring of implementation for all of the 140 mitigation measures determined in the EMP (see: description in chapter 5.1), and participation in other events referring to the environment, local society, and health and safety (as listed in chapter 6.1).

Within the reporting period the Engineer was supervising the construction works in progress within the framework of Contract 3B.1/1, including e.g. implementation of the measures determined in the Environmental Management Plan in the range assigned to the Engineer (see: description in chapter 4.2), monitoring of the implementation status for 140 mitigation measures determined in the EMP (see: description in chapter 5.2), and participation in other events referring to the environment, local society, and health and safety (as listed in chapter 6.2).

Within the reporting period the Investor was implementing measures assigned to it in the range of Contract 3B.1/1 implementation, including e.g. implementation of particular measures determined in the Environmental Management Plan in the range assigned to the Investor (see: description in chapter 4.3), monitoring of the implementation status for 1 mitigation measure determined in the EMP (see: description in chapter 5.3), participation in other events referring to the environment, local society, and health and safety (as listed in chapter 6.3), and supervision over actions of the Contractor and of the Engineer.

As a result of the monitoring measures implemented by the Contractor, by the Engineer, and by the Investor, it was identified within the reporting period that:

- a) 115 out of 140 mitigation measures listed in Appendix 1 to the EMP were implemented, including the following:
 - issues with implementation were not identified in case of 77 measures;
 - issues and / or inconsistencies associated with implementation were identified in case of 38 measures (described in chapter 4.4)
(in no case did they cause significant negative impacts on the environment).

- b) 25 out of 140 mitigation measures listed in Appendix 1 to the EMP were not implemented, including:
- implementation of 12 measures was not related to the current scope of Contract 3B.1/1;
 - implementation of 1 measure was finally completed prior to the commencement of works;
 - implementation of 12 measures was not necessary throughout the entire reporting period.
- c) 140 out of 140 monitoring measures listed in Appendix 2 to the EMP were implemented, including the following:
- issues and / or inconsistencies associated with implementation were not identified in case of any of the measures.

The Check List referring to implementation of the mitigation measures and of the monitoring measures listed in Appendix 1 and in Appendix 2 to the EMP, respectively, within the reporting period, was presented in Appendix no. 1 to this *Report*.

8 SOURCE MATERIALS

1. *Environmental Management Plan for Contract 3B.1 Flood Protection Sandomierz.* Świętokrzyski Board of Amelioration and Hydraulic Structures in Kielce. Kielce, October 2016.
2. *Progress Reports* provided by the Contractor for Contract 3B.1/1 in subsequent months of the reporting period.
3. *Monthly Reports and Quarterly Reports on EMP Implementation* for Contract 3B.1/1, as provided by the Engineer in subsequent months / quarters of the reporting period (developed within the framework of Consulting Services Contract no. 5.2 *Design and Construction Supervision. Project Management, Technical Assistance and Training, Technical Support for the Project and Strengthening of PIU's Institutional Capacity*).
4. *Final Report on Implementation of Measures determined in the Environmental Management Plan for the Contract 3B.1*, developed by the Engineer in May 2021 (developed within the framework of Consulting Services Contract no. 5.2 *Design and Construction Supervision. Project Management, Technical Assistance and Training, Technical Support for the Project and Strengthening of PIU's Institutional Capacity*).

9 LIST OF APPENDICES

Appendix no. 1. Check List for implementation of the measures listed in Appendix 1 and 2 to the EMP for Contract 3B.1/1.

Appendix no. 2a. Photo documentation for the Task 3.

Appendix no. 2b. Photo documentation for the Task 4.