

FINAL REPORT on the implementation of the measures specified in the ENVIRONMENTAL MANAGEMENT PLAN for Contract 3D.2/2

Odra-Vistula Flood Management Project

OVFMP Subcomponent	3D Passive and active protection in San basin
Contract Task	Expansion of the left and right embankment of the Biala River in the Tarnow Municipality and the City of Tarnow
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 22. Marszałka J. Piłsudskiego Street, 31-109 Cracow, Poland
Works Contractor	SKANSKA S.A. 173. "Solidarności" Alley, 00-877 Warsaw, Poland
Engineer	AECOM Polska Sp. z o.o. Project Office: 1. Pokoju Alley, 31-548 Cracow, Poland

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INTRODUCTION

This document, prepared 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 in the implementation of the Odra-Vistula Flood Management Project*, presents the final report on the implementation of the measures specified in the Environmental Management Plan (EMP) for Works Contract 3D.2/2 *Expansion of the left and right embankment of the Biala River in the Tarnow Municipality and the City of Tarnow*.

The report covers the period:

- from the Commencement Date of Works under Contract 3D.2/2 (i.e. **from August 3, 2021**);
- to the date of completion of the works considered to be essential works, resulting from the Time for Completion for the above-mentioned Contract (i.e. **until October 16, 2023**).

The following is presented respectively for this Contract:

- basic information on Contract 3D.2/2 (including, inter alia, the physical scope and basic dates of the Contract);
- basic information on the Environmental Management Plan for Contract 3D.2/2;
- organisational system for supervising the implementation of the Environmental Management Plan;
- implementation status of the mitigation measures specified in Appendix 1 to the EMP,
- implementation status of the monitoring measures specified in Appendix 2 to the EMP,
- description of other activities and events concerning ES;
- summary.

1 BASIC INFORMATION ON CONTRACT 3D.2/2

The Works Contract 3D.2/2 *Expansion of the left and right embankment of the Biala River in the Tarnow Municipality and the City of Tarnow* was implemented as part of the *Odra-Vistula Flood Management Project* (OVFM Project), under Component 3 – *Protection of the Upper Vistula* and Subcomponent 3D – *Passive and active protection in San basin*.

An agreement with the Contractor for Contract OVFM 3D.2/2 was signed on June 29, 2021. On July 22, 2021, the Engineer handed the construction site over to the Contractor, and the commencement of works took place on 08/03/2021.

The basic information about the Contract is presented below.

Contract Name:

Expansion of the left and right embankment the Biala River in the Tarnow Municipality and the City of Tarnow.

Contractor:

SKANSKA S.A.

173. “Solidarności” Alley, 00-877 Warsaw, Poland

Physical scope:

The Contract 3D.2/2 encompassed the extension of flood embankments of the Biała River (over a distance of approx. 12.470 km, including the left embankment – approx. 5.995 km, and the right embankment – approx. 6.475 km) located in the City of Tarnów, in Biała – Commune of Tarnów, and – over a small section of few meters (approx. 8 m) – in Komorów – Commune of Wierzchosławice, District of Tarnów. The aim of the Contract was to achieve the required safe elevation over the entire length of the embankments in order to ensure the safety of people, industrial plants, residential and commercial buildings, and to protect the technical infrastructure from the disastrous effects of flows of great waters in the Biała riverbed in the town of Biała, Commune of Tarnów, and the City of Tarnów.

The works comprised the extension of the existing flood embankments for the Biała River along with the backwater embankment of the Wątok Stream through their widening and raising to the freeboard elevation (by about 0.15-0.50 m, on average) and extending a section of the left embankment for the Biała River (by creating the closure of the floodplain valley at Krakowska Street in Tarnów). The scope of the works also comprised sealing additionally the embankment with an anti-filtration membrane in the embankment crest, construction of the necessary embankment roads at the area beyond the embankment, restoration of the existing and construction of new sections of roads within the embanked area, extension and construction of embankment ramps, extension of the concrete walls constituting - in the existing state - integral part of flood protection embankments, reconstruction or renovation of the existing embankment culverts, development of U-turn yards and the necessary redevelopment of the existing infrastructure (fences, water supply pipelines, sewage systems, gas pipelines, teletechnical networks, heat distribution and power networks).

Basic Dates of the Contract:

Date of signing the Contract:

June 29, 2021

Date of handing over the Construction Site:	July 22, 2021
Commencement Date of Works:	August 3, 2021
Time for Completion:	816 days from the date of handing over the construction site
Amendment no. 1 was signed on:	August 11, 2021
Amendment no. 2 was signed on:	April 27, 2022
Amendment no. 3 was signed on:	August 24, 2022
Amendment no. 4 was signed on:	October 6, 2022
Amendment no. 5 was signed on:	October 31, 2022
Amendment no. 6 was signed on:	April 20, 2023
Amendment no. 7 was signed on:	May 31, 2023
Amendment no. 8 was signed on:	June 7, 2023
Amendment no. 9 was signed on:	September 13, 2023
Amendment no. 10 was signed on:	October 19, 2023
Amendment no. 11 was signed on:	November 7, 2023
Amendment no. 12 was signed on:	April 8, 2024
Amendment no. 13 was signed on:	April 26, 2024
Completion date of Works (acc. to the Time for Completion):	October 16, 2023
Date of signing the Final acceptance certificate:	April 26, 2024

2 BASIC INFORMATION ON THE EMP FOR CONTRACT 3D.2/2

Works over the preparation of the Environmental Management Plan for Works Contract 3D.2/2 were completed in January 2020 (public consultation on the draft EMP document took place from December 19, 2019 to January 7, 2020) and the final version of the EMP document was approved by the World Bank on February 3, 2020 (the so-called "*No Objection*" clause). The Environmental Management Plan was one of the documents of the bidding procedure for the selection of the Contractor for the construction works under the Contract. This is a document that systematises the activities undertaken under the Contract, obliging all those involved in the implementation of the Contract to comply with the provisions contained therein. A detailed description of the contract implementation conditions for environmental management was developed in the form of appendices to the EMP – Appendix 1 containing the *Plan of mitigation measures* (see description in 2.1 below), and Appendix 2 containing the *Plan of monitoring measures* (see description in 2.2 below).

2.1 MITIGATION MEASURES LISTED UNDER APPENDIX 1 OF THE EMP

Appendix 1 of the EMP for Contract 3D.2/2 contains 124 mitigation measures to prevent and reduce the negative environmental impacts of the project. These measures result from the content of the decision on environmental conditions issued for the Contract (included in Appendix 4 of the EMP), as well as from the procedural requirements of the World Bank and from the additional conditions defined during the works on the preparation of the EMP. The table of mitigation measures in Appendix 1 of the EMP describes the individual measures and identifies where they will be implemented and who will be responsible for their implementation.

The mitigation measures given in Appendix 1 of the EMP fall into the following 20 thematic categories:

- a) Requirements on schedule of works
(items 1-2 in Appendix 1 to EMP);
- b) Requirements on road access to the Contract execution area
(items 3-12 in Appendix 1 to EMP);
- c) Requirements on locations of site facilities and technological roads and yards
(items 13-21 in Appendix 1 to EMP);
- d) Requirements on the quality and management of soils
(items 22-23 in Appendix 1 to EMP);
- e) Requirements for works in the embanked area and in channels
(items 24-25 in Appendix 1 to EMP);
- f) Requirements on proceeding with topsoil/mineral soil
(items 26-31 in Appendix 1 to EMP);
- g) Requirements on removing (felling) trees and shrubs
(items 32-33 in Appendix 1 to EMP);
- h) Requirements on protecting trees and shrubs not intended for removal (felling)
(items 34-41 in Appendix 1 to EMP);
- i) Requirements on securing protected natural resources
(items 42-55 in Appendix 1 to EMP);
- j) Requirements for demolition
(items 56-58 in Appendix 1 to EMP);
- k) Requirements on recreation of the site after the completion of construction works
(items 59-62 in Appendix 1 to EMP);
- l) Requirements on the prevention of the environmental pollution
(items 63-86 in Appendix 1 to EMP);
- m) Requirements on waste management
(items 87-91 in Appendix 1 to EMP);
- n) Requirements on health and safety protection
(items 92-98 in Appendix 1 to EMP);
- o) Requirements on extraordinary threats to the environment
(items 99-101 in Appendix 1 to EMP);
- p) Requirements on conservation of historic monuments
(items 102-104 in Appendix 1 to EMP);
- q) Requirements on the Contractor's personnel implementing the EMP
(items 105-110 in Appendix 1 to EMP);
- r) Requirements on reporting on the implementation of the EMP
(item 111 in Appendix 1 to EMP);

- s) Requirements after completion of works
(items 112-114 in Appendix 1 to EMP);
- t) Remaining ESHS requirements
(items 115-124 in Appendix 1 to EMP).

The content of the individual mitigation measures in Appendix 1 of the EMP is provided in the *Checklist* attached as *Appendix no. 1* to this report.

2.2 MONITORING MEASURES LISTED UNDER APPENDIX 2 OF THE EMP

Appendix 2 of the EMP for Contract 3D.2/2 contains 124 monitoring measures aimed at monitoring the implementation of the mitigation measures described in Appendix 1. The tabular list of monitoring measures, presented in Appendix 2 of the EMP, takes into account the same thematic categorisation as applied to mitigation measures. The table of monitoring measures determines, inter alia, the monitoring places, the method of monitoring, the period and frequency of monitoring, as well as the units responsible for conducting the monitoring.

3 SYSTEM OF SUPERVISION OF THE IMPLEMENTATION OF THE MEASURES SPECIFIED IN THE EMP FOR CONTRACT 3D.2/2

Supervision over the implementation of the mitigation measures and monitoring measures specified in the EMP for Contract 3D.2/2 was conducted at the level of all organisational units participating in the execution of the Contract, i.e. the Works Contractor, Engineer, Project Implementation Office (PIO) and Project Coordination Unit (PCU). Information on the scope of the particular units' activities is presented below.

3.1 CONTRACTOR

The Site Manager was the person directly responsible for implementing the measures defined in the EMP on behalf of the Works Contractor. As per item no. 106 of Appendix 1 to the EMP, in order to provide support to the Site Manager in the implementation of the EMP, the EMP Implementation Coordinator was appointed within the Contractor's team. The role of the EMP Implementation Coordinator was to regularly cooperate with the Site Manager, the rest of the Contractor's personnel and the Supporting Expert for Environmental Management in the Engineer's team in ensuring the implementation of the EMP conditions, and also to conduct current reporting in the above-mentioned scope. Furthermore, in accordance with items 107, 108 and 109 of Appendix 1 of the EMP, the Contractor has ensured the participation of a team of experts of environmental, archaeological and sapper supervision, in the scope consistent with the requirements of the EMP.

At the end of each month, the EMP Implementation Coordinator summarised the current implementation status of the individual EMP conditions (in the form of a checklist). Information on the implementation of the EMP was forwarded to the Supporting Expert for Environmental Management in the Engineer's team, together with the relevant attachments (including but not limited to notes, opinions, environmental supervision reports, etc.).

3.2 ENGINEER

The Supporting Expert for Environmental Management, cooperating in this regard with the Resident Engineer, supervision inspectors and other members of the Engineer's team providing investor's supervision over the project implementation, exercised direct supervision over the implementation of the EMP conditions on behalf of the Engineer's team. The Supporting Expert for Environmental Management was in regular contact with the Site Manager and the EMP Implementation Coordinator in the Contractor's team, establishing the scope of conditions needed to be met at a given stage of the works, overseeing the implementation status of individual EMP conditions, participating in problem solving and conducting the site inspections. After the end of each reporting period (month and quarter), the Environmental Management Expert reviewed the Contractor's environmental documentation and prepared reports submitted to the Project Implementation Office.

3.3 PROJECT IMPLEMENTATION OFFICE (PIO)

The Environmental Specialist, cooperating in this regard with the Head of the PIO, other members of the PIO team, as well as other organisational units of RZGW in Cracow, exercised direct supervision over the implementation of the EMP conditions on behalf of the Project Implementation Office (PIO). The Environmental Specialist and the Head of the PIO remained in contact with the Supporting Expert for Environmental Management in the Engineer's team, overseeing the implementation status of the particular conditions of the EMP and engaging in resolving the current issues. After the end of each reporting period (month and quarter), the Environmental Specialist and the Head of the PIO reviewed the current environmental documentation of the contract, and then forwarded it to the Project Coordination Unit (to the extent consistent with the EMP conditions).

3.4 PROJECT COORDINATION UNIT (PCU)

The Environmental Management Expert, cooperating in this regard with the other members of the PCU's team, exercised direct supervision over the implementation of the EMP conditions on behalf of the Project Coordination Unit. The Expert remained in regular contact with the Head of the PIO and with the Environmental Specialist in the PIO team. He/she also cooperated with those responsible for the implementation of the EMP on behalf of the other organisational units of the investment process, namely the Supporting Expert for Environmental Management in the Engineer's team, as well as the Site Manager and the EMP Implementation Coordinator in the Contractor's team. The Environmental Management Expert oversaw the implementation status of individual EMP conditions, by engaging in resolving the current issues and by participating in site inspections. After the end of each quarterly reporting period, the Expert reviewed the environmental documentation provided by the PIO and prepared an input to the PCU's reports subsequently submitted to the World Bank.

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

In accordance with the contents of Appendix 1 to the EMP for Contract 3D.2/2, the units responsible for implementation of mitigation measures determined under Appendix 1 to the EMP are as follows: **Contractor (124 measures:** items 1-124 under Appendix 1 to the EMP), **Engineer (3 measures:** 20-21, 123 under Appendix 1 to the EMP) and the **Investor (2 measures:** items 20 and 21 under Appendix 1 to the EMP). The EMP for Contract 3D.2/2 envisages the implementation of 124 mitigation measures in total, including the implementation of at least 105 measures within the reporting period (for the remaining 19 measures, no implementation was necessary – see below).¹

4.1 CONTRACTOR'S MEASURES

In line with the information provided in monthly and quarterly reports on the implementation of the measures specified in the EMP:

- a) the Contractor implemented 105 (84.6%) mitigation measures within the reporting period, including:
 - 83 (66.9%) measures were implemented in the scope required within the reporting period (items no. 1-2, 4-8, 11, 13-14, 17-19, 21-26, 28-29, 31-33, 38, 42-43, 46, 51-53, 56, 59-61, 63-64, 67-76, 78-79, 82-88, 90, 93-100, 105-107, 109-121, 123-124 under Appendix 1 to the EMP);
 - in case of 22 (17.7%) measures, problems and/or irregularities were identified in their implementation, as described in chapter 4.4
(items no. 3, 9-10, 15-16, 27, 30, 34-37, 40-41, 45, 50, 62, 65, 91-92, 102, 108, 122 under Appendix 1 to the EMP).
- b) The Contractor did not implement 19 (15.3%) mitigation measures within the reporting period, including:
 - the implementation of 19 (15.3%) measures was not necessary for the entire period covered by this report (items no. 12, 20, 39, 44, 47-49, 54-55, 57-58, 66, 77, 80-81, 89, 101, 103-104 under Appendix 1 to the EMP);
 - no cases were identified of lack of implementation of the measure required within the reporting period.

Mitigating measures were implemented by the Contractor with the participation of, inter alia, Site Manager, EMP Implementation Coordinator, team of environmental experts (including: team coordinator, botanist - phytosociologist, dendrologist, entomologist, herpetologist, ornithologist, theriologist, chiropterologist), archaeological supervision team, sapper supervision team, and H&S specialist. Mitigation measures were agreed with (if required by the conditions of Contract and/or the EMP) and supervised by the Engineer's team, with participation of the following persons: Project Manager, Senior Supporting Expert for Environmental

¹ The content of the individual mitigation measures in Appendix 1 of the EMP is provided in the *Checklist* attached as *Appendix no. 1* to this report.

Management, key expert – Real estate Specialist, senior supporting experts – Supervision Inspectors, and key expert – Resident Engineer/supervision inspector.

4.2 ENGINEER'S MEASURES

In line with the information provided in monthly and quarterly reports on the implementation of the measures specified in the EMP:

- a) the Engineer implemented 2 (1.6%) mitigation measure within the reporting period, including:
 - 2 (1.6%) measures were implemented in the scope required within the present reporting period (items no. 21, 123 under Appendix 1 to the EMP).
- a) the Engineer did not implement 1 (0.8%) mitigation measure within the reporting period, including:
 - 1 (0.8%) measure finally completed within previous periods (item no. 20 under Appendix 1 to the EMP);
 - no cases were identified of lack of implementation of the measure required within the reporting period.

Mitigation measures were implemented by the Engineer with participation of the selected experts from the Engineer's team (composition of the team is given in Chapter 4.1).

4.3 INVESTOR'S MEASURES

In line with the information provided in monthly and quarterly reports on the implementation of the measures specified in the EMP:

- a) the Investor implemented 1 (0.8%) mitigation measure within the reporting period, including:
 - 1 (0.8%) measure implemented in the scope required within the present reporting period (item no. 21 under Appendix 1 to the EMP).
- a) the Investor did not implement 1 (0.8%) mitigation measure within the present reporting period, including:
 - 1 (0.8%) measure was finally completed within previous periods (item no. 20 under Appendix 1 to the EMP);
 - no cases were identified of lack of implementation of the measure required within the reporting period.

Mitigation measures will be implemented by the Investor with participation of the following persons from the PIO's team: Environmental Specialist, Resettlement Specialists, and Head of PIO.

4.4 PROBLEMS WITH IMPLEMENTATION OF MITIGATION MEASURES UNDER APPENDIX 1 TO THE EMP

In line with the information provided in monthly and quarterly reports on the implementation of the measures specified in the EMP, the following issues and/or inconsistencies associated with implementation of 22 mitigation measures listed under Appendix 1 to the EMP for Contract 3D.2/2 were identified (in the order according to the item numbers under Appendix 1 to the EMP):

1) Items no. 3, 9 and 10 under Appendix 1 to the EMP

Problems with fulfilling the conditions for the use of access roads to the Contract execution area

[from the 3rd quarter of 2021 to the 4th quarter of 2021]:

Incomplete markings on access roads were found between the 3rd quarter of 2021 and the 4th quarter of 2021. In addition, during the reporting period, the Contractor was late in executing the complete photographic documentation of the Contract execution area (delayed documentation of the technical condition of the buildings). All documentation was completed in December 2021. Moreover, the Contractor was late to carry out the site inspections in the presence of Road managers, which was followed by protocols on the condition of access roads to the Contract execution area. The Contractor was late in preparing and submitting a traffic organisation and works protection plan for the Engineer's approval.

Failure to fully implement the measures did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

2) Items no. 15, 16 and 65 under Appendix 1 to the EMP

Problems with fulfilling the conditions of the storage of construction materials and waste in the Contract execution area

[3rd quarter of 2021, from the 1st quarter of 2022 to the 3rd quarter of 2023]:

In the period of the 3rd quarter of 2021, the Contractor agreed with the team of environmental experts on the planned locations intended for site facilities and other components of the construction site, as well as the Site Facilities Plan and locations intended for technological roads. At the same time, the above-mentioned arrangements were belatedly submitted to the Engineer for approval. In addition, between the 1st quarter of 2022 and 3rd quarter of 2023, construction materials and waste were found to be stored in the Biala River's embanked area, approx. 60 m from the riverbed (right embankment, km approx. 3+150). The Contractor was instructed to limit the space and minimise the time for keeping the above materials at the indicated distance. The stored materials did not pose a threat to the Biala River ecosystem or the surrounding vegetation. The Contractor took measures to limit the space for storage of materials and, in conjunction with the landowner, sought to dispose of the materials progressively until they are completely disposed of at the end of the Contract implementation period.

Failure to fully implement the measures did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

3) Items no. 27, 30 and 35 under Appendix 1 to the EMP

Cases of inadequate storage of humus, including failure to maintain adequate protection for trees left outside felling

[from the 3rd quarter of 2021 to the 3rd quarter of 2023]:

In the period from the 3rd quarter of 2021 to the 3rd quarter of 2022, instances of inappropriate storage and formation of humus heaps were found, including storage in the form of high heaps as well as storage of these masses under the crown projection of trees, in close proximity to the trunks. The above-mentioned issue of storing masses of mineral soil was identified in the period of the 1st quarter of 2022. In the period from the 3rd quarter of 2021 to the 3rd quarter of 2023, instances of inappropriate storage of other earth masses and building materials were found, under the crown projection of trees, in close proximity to the trunks. The Contractor made efforts to ensure that the earth masses were stored appropriately, including adjusting the heights of the piles as well as gradually reducing the storage of earth masses in the vicinity of trees (due to space constraints, the storage of earth masses in the vicinity of trees was done in a way that was least harmful to the trees and shrubs left outside the felling). In addition, the storage of earth masses did not cause the degradation of natural habitats and protected species, nor did it adversely affect the condition of trees and shrubs

Failure to fully implement the measures did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

4) Items no. 34, 36, 37, 40 and 41 under Appendix 1 to the EMP

Cases of insufficient measures with regard to the protection of greenery in the area of the works performed

[from the 3rd quarter of 2021 to the 3rd quarter of 2023]:

The Contractor performed the works for securing the trunks of trees not to be felled as well as made efforts to ensure all requirements and standards for the proper protection of greenery in the vicinity of the works. However, sometimes, due to spatial constraints as well as the impact of adverse weather conditions, there were instances of incomplete greenery fencing between the 3rd quarter of 2021 and the 3rd quarter of 2023, potentially subject to mechanical damage as well as local abrasion of trunks and branches. Moreover, between the 4th quarter of 2021 and the 3rd quarter of 2023, isolated instances of tree branches and boughs being exposed to mechanical damage by moving construction vehicles (zones of accessible crossings in close proximity to dense tree plantings) were found, with inadequate protection and lack of needed preventive pruning against some of the greenery requiring it. Between the 1st quarter of 2023 and 3rd quarter of 2023, incidental cases of missing markings of work areas were identified, leading to cases of damage to vegetation outside the designated work area. However, the damage did not affect valuable communities of tree stands, natural habitats or protected species of vascular plants, mosses, fungi and lichens. The Contractor responded on an ongoing basis to reported gaps in the implementation of the above-mentioned measures and made efforts to implement them.

Failure to fully implement the measures did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

5) Item no. 45 in Appendix 1 to the EMP

Cases of insufficient protection of manholes - potential anthropogenic traps for small fauna [from the 1st quarter of 2023 to the 3rd quarter of 2023]:

In the period from the 1st quarter of 2023 to the 3rd quarter of 2023, cases of inadequate (not fully sealed) protection of the top inlet to the manholes were identified, which could result in anthropogenic traps for small animals. However, no cases of animals being trapped in such anthropogenic traps were identified. The Contractor responded on an ongoing basis to reported gaps in the implementation of the above-mentioned measures and made efforts to implement them in all locations where shortcomings were found.

Failure to fully implement the measure did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

6) Item no. 50 in Appendix 1 to EMP

Problems with removal of invasive plants

[from the 2nd quarter of 2023 to the 3rd quarter of 2023]:

Between the 2nd quarter of 2023 and the 3rd quarter of 2023, the Contractor took measures to eradicate knotweed stands in accordance with the developed invasive species eradication programme, but in the case of this species, eradication would have to be carried out for whole patches of the plant, which in many places of the Contract extended far beyond the Contract boundaries, into plots located in the neighbourhood, also into the floodplain of the Biala River. Due to the difficulty in removing the knotweed and the effect of these measures, it was not possible to fully achieve effective removal of the plant and fully limit its further growth in the Contract area. However, the knotweed removal measures undertaken have eliminated the largest outbreaks of this species and thus inhibited its further growth during the period of the works.

Failure to fully implement the measure did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

7) Item no. 62 in Appendix 1 to EMP

Problems with the implementation of grassland surface care measures

[3rd quarter of 2023]:

In the period of July 2023, the Contractor failed to perform all necessary maintenance measures for grassed areas, including delayed mowing activities of high grass growth. These activities were fully completed by the Contractor in the second half of August 2023.

Failure to fully implement the measure did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

8) Item no. 91 in Appendix 1 to EMP

Problems with preventing illegal dumping of litter and waste

[from the 3rd quarter of 2021 to the 3rd quarter of 2022]:

From the 3rd quarter of 2021 to the 3rd quarter of 2022, the Contractor took efforts to protect the Contract execution area from the occurrence of wild (illegal) waste dumping sites. Signs were erected at the site of the illegal dumping site (left embankment, OD Jaskółka zone) in the 1st quarter of 2022 informing the public of the ban on dumping the waste as well as regarding the monitoring of the site. However, these activities did not bring a measurable effect – new masses of waste were found to be appearing at the site. In

addition, other sites where waste was abandoned in the form of wild dumping were shown in later periods. The Contractor undertook to make efforts to fully implement item 91 in Appendix 1 of the EMP in the entire Contract implementation area.

Failure to fully implement the measure did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

9) Item no. 92 in Appendix 1 to EMP

Problems with development of documents related to safety in the Contract execution area [from the 3rd quarter of 2021 to the 4th quarter of 2021]:

From the 3rd quarter of 2021 to the 4th quarter of 2021, problems were identified with the approval of the Building site organisation design (delay in implementation of amendments to the document by the Contractor). This document was approved by the Engineer in November 2021.

Failure to fully implement the measures did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

10) Items no. 102 and 108 in Appendix 1 to EMP

Problems with ensuring the archaeological supervision [3rd quarter of 2021]:

In the 3rd quarter of 2021 (August 2021), the Contractor was proceeding with the appointment of archaeological supervision for the duration of the earthworks and preparing an action plan in this regard. At the same time, the Contractor did not provide the QAP of sapper's supervision document as well as its staff composition. The QAP document was completed by the Contractor and accepted by the Engineer in September 2021.

Failure to fully implement the measures did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

11) Item no. 122 in Appendix 1 to EMP

Problems with the implementation of educational actions related to the filing of claims referring to the conditions of work and pay

[from the 3rd quarter of 2021 to the 4th quarter of 2021]:

From the 3rd quarter of 2021 to the 4th quarter of 2021, according to the information obtained from the Contractor, persons employed for the purpose of Contract implementation were informed on an ongoing basis about the possibility of filing claims referring to the conditions of works and pay, according to the conditions given under item no. 122 of Appendix 1 to the EMP. At the same time, the Contractor did not submit for the Engineer's agreement a leaflet with necessary data on provision of claims and applications, in which it would assure about e.g. the absence of repercussion for a person notifying about an issue. The document was also completed by the Contractor and accepted by the Engineer in December 2021.

Failure to fully implement the measures did not have a significant negative impact on the condition of the natural environment of the works area and its surroundings.

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

In accordance with the contents of Appendix 2 to the EMP for Contract 3D.2/2, units responsible for implementation of monitoring measures determined under Appendix 2 to the EMP are as follows: **the Contractor (123 measures:** items 1-105, 107-124 under Appendix 2 to the EMP), **Engineer (124 measures:** items 1-124 under Appendix 2 to the EMP) and **Investor (2 measures:** items 20-21 under Appendix 2 to the EMP). The EMP for Contract 3D.2/2 envisages the implementation of 124 monitoring measures¹, in total, including the implementation of all measures within the reporting period.

5.1 CONTRACTOR'S MEASURES

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 carried out by: (i) verification of requirements determined under the EMP for the current stage of works; (ii) verification of the Contractor's documents related to implementation of the conditions under the EMP; (iii) ongoing inspections on site; (iv) measures listed under Appendix 2 to the EMP; and (v) ongoing establishments with representatives of the Engineer and of the Investor.

- a) The Contractor implemented 123 (99.2%) monitoring measures within the reporting period, including:
 - 123 (99.2%) measures were implemented in the scope required within the reporting period (items no. 1-105, 107-124 under Appendix 2 to the EMP).
 - none of the measures (0%) was implemented partially.
- b) Cases of lack of implementation for any of the monitoring measures attributable to the Contractor were not identified within the reporting period, including:
 - for any of the measures, no problems and/or irregularities were identified in their implementation.

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

5.2 ENGINEER'S MEASURES

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 carried out by: (i) verification of requirements determined under the EMP for the current stage of works; (ii) verification of the Contractor's and Investor's documents related to implementation of the conditions under the EMP; (iii) ongoing inspections on the work site; (iv) measures listed under Appendix 2 to the EMP; and (v) ongoing establishments with representatives of the Contractor and of the Investor.

¹ The measures relate to the monitoring of implementation of the individual mitigation measures under Appendix 1 to the EMP, the content of which is provided in the *Checklist* attached as *Appendix no. 1* to this report.

- a) the Engineer implemented 124 (100.0%) monitoring measures within the reporting period, including:
- 124 (100.0%) measures were implemented in the scope required within the reporting period (items no. 1-99 under Appendix 2 to the EMP).
 - for any of the measures, no problems and/or irregularities were identified in their implementation.
- b) cases of lack of implementation for monitoring measures attributable to the Engineer were not identified within the reporting period.

Furthermore, within the reporting period, the Engineer was supervising the implementation of 123 monitoring measures attributable to the Contractor, in accordance with Appendix 2 to the EMP.

Monitoring measures and supervision measures for implementation of the EMP were implemented by the Engineer with participation of the selected experts from the Engineer's team (composition of the team is given in Chapter 4.1).

5.3 INVESTOR'S MEASURES

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 carried out by: (i) verification of requirements determined under the EMP for the current stage of works; (ii) verification of the Contractor's and Engineer's documents related to implementation of the conditions under the EMP; (iii) ongoing inspections on site; (iv) measures listed under Appendix 2 to the EMP; and (v) ongoing establishments with representatives of the Contractor and of the Engineer.

- a) the Investor implemented 2 (1.6%) monitoring measures within the reporting period, including:
- these measures were implemented in the scope required within the reporting period (items no. 20-21 under Appendix 2 to the EMP).
 - for any of the measures, no problems and/or irregularities were identified in their implementation.
- b) cases of lack of implementation for monitoring measures attributable to the Investor were not identified within the present reporting period.

Furthermore, within the reporting period, the Investor was supervising the implementation of 123 monitoring measures attributable to the Contractor, in accordance with Appendix 2 to the EMP and 124 monitoring measures attributable to the Engineer, in accordance with Appendix 2 to the EMP.

The above-mentioned measures, to the extent relating to the EMP, were implemented by the Investor with participation of the PIO's team members listed in Chapter 4.1.

5.4 PROBLEMS WITH IMPLEMENTATION OF MITIGATION MEASURES UNDER APPENDIX 2 TO THE EMP

In line with the information provided in monthly and quarterly reports on the implementation of the measures specified in the EMP, no problems or inconsistencies associated with implementation were found in implementation of the monitoring measures specified in Appendix 2 of the EMP for Contract 3D.2/2.

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

6.1 CONTRACTOR'S MEASURES

Within the reporting period, the Contractor performed construction works under Contract 3D.2/2 and implemented the particular measures determined in the Environmental Management Plan within the scope attributable to the Contractor.

Furthermore, within the reporting period, the Contractor performed, in particular, the following measures related to the environment, local society, health and safety, in reference to implementation of Contract 3D.2/2:

- due to a risk of spreading coronavirus infections causing COVID-19 disease, in the period of the 3rd quarter of 2021 to the first quarter of 2022, the Contractor's activities were aligned with the applicable sanitary requirements related to the prevention of the spread of the SARS-CoV-2 virus.

6.2 ENGINEER'S MEASURES

Within the reporting period, the Engineer supervised the construction works conducted under Contract 3D.2/2 and implemented particular measures determined in the Environmental Management Plan within the scope attributable to the Engineer.

Furthermore, within the reporting period, the Engineer performed, in particular, the following measures related to the environment, local society, health and safety, in reference to implementation of Contract 3D.2/2:

- due to a risk of spreading coronavirus infections causing COVID-19 disease, in the period of the third quarter of 2021 to the first quarter of 2022, the Engineer's activities were aligned with the applicable sanitary requirements related to the prevention of the spread of the SARS-CoV-2 virus.

6.3 INVESTOR'S MEASURES

Within the reporting period, the Investor performed its actions associated with implementation of Contract 3D.2/2, including, notably, implemented particular measures determined in the Environmental Management Plan within the scope attributable to the Investor, and supervised actions of the Contractor and of the Engineer.

6.4 OTHER MEASURES

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 the Contractor's employees

An accident situation involving the Contractor's employee occurred on 08/22/2022 (third quarter of 2022). The injury occurred when removing a formwork of the wall formworked with the PERI system (300x100cm DOMINO board). At the time of the incident, the worker used disproportionate force in pulling the formwork top back towards the wall. He made a sudden movement and put weight on his forearm which resulted in an injury. The injured person was taken to hospital in the ED in Tarnów. After an ultrasound was performed, an injury to the area of the right forearm was diagnosed - "fibre damage in the proximal projection of the flexors on the ulnar side, without disruption of the muscle structure". The injured person was on sick leave. The injured person received appropriate remuneration related to absence from work due to the work accident. The injured person returned to work after the end of his sick leave.

An accident situation involving the Contractor's employee occurred on 11/02/2022 (fourth quarter of 2022). A worker moving around a construction site tripped over a wire sticking out of the ground. As a result of the fall, the victim hit the ground with his hand and felt pain in his right hand. The incident was reported to the Contractor's supervisor, the injured person was sent to hospital, but did not go there (he went home). On the second day, the injured worker felt a lot of pain in his hand and went to the ED in Jasło. Following the ultrasound, the injured person was hospitalised. "Injury to the right wrist and right hand, fracture of the distal epiphysis of the ulnar and radial bones" was found. The worker stayed on sick leave. The injured person returned to work after the end of his sick leave.

An accident situation involving the Contractor's employee occurred on 01/26/2023 (first quarter of 2023). A drill pipe was damaged during the injection works. Two of the Contractor's workers drove a transport vehicle to the back of the site to bring in a drill pipe (approximately 30 kg) to be replaced with a working one. When carrying the line by hand together (two workers) holding both ends while attempting to lay it on the truss (flat terrain) the drilling element slipped from the hands of one of them hitting him on the fingers of his left hand. At first, the worker felt a lot of pain and reported this to the employer. The worker did not want to go to hospital. On the second day, the worker went to the doctor where an x-ray of his finger was taken. The finger turned out to be broken. The hospital record read: "Fracture of the distal phalanx of finger IV of the left hand". The worker stayed on sick leave. The injured person returned to work after the end of his sick leave.

6.6.2 Accidents with participation of people authorised to access the site

In the reporting period, no accidents involving other persons authorised to be present on the Contract area were recorded.

6.6.3 Accidents with participation of outsiders

In the reporting period, no accidents involving the outsiders were recorded.

6.7 ENSURING THE CONDITIONS OF WORK AND PAY FOR THE PERSONNEL

Within the reporting period, the Contractor ensured the appropriate conditions of work and pay for the personnel in connection with the provisions of the labour law binding in Poland.

6.8 PREVENTING THE CASES OF SEXUAL HARASSMENT AND MOBBING

Within the reporting period, no cases of sexual harassment and mobbing occurred.

7 SUMMARY

This report presents an account of the implementation of the measures specified in the Environmental Management Plan (EMP) for the project: Works Contract 3D.2/2 *Expansion of the left and right embankment of the Biala River in the Tarnow Municipality and the City of Tarnow* under the *Odra-Vistula Flood Management Project (OVFMP)*.

The report pertains to the measures conducted:

- from the Commencement Date of Works under Contract 3D.2/2
(i.e. **from August 3, 2021**);
- to the date of completion of the works considered to be essential works, resulting from the Time for Completion for the above-mentioned Contract
(i.e. **until October 16, 2023**).

Within the reporting period, the Contractor conducted works within the scope covered by the Contract 3D.2/2 (see description in Chapter 1), has implemented 124 mitigation measures specified in the EMP (see description in Chapter 4.1), was monitoring the implementation status of 123 mitigation measures specified in the EMP (see description in Chapter 5.1) and was attending other events related to the environment, local community, health and safety (listed in Chapter 6.1).

Within the reporting period, the Engineer supervised the works conducted under Contract 3D.2/2, has implemented the particular measures specified in the Environmental Management Plan in the scope attributable to the Engineer (see description in Chapter 4.2), was monitoring the implementation status of all 124 mitigation measures specified in the EMP (see description in Chapter 5.2) and was attending other events related to the environment, local community, health and safety (listed in Chapter 6.2).

Within the reporting period, the Investor performed its actions associated with implementation of Contract 3D.2/2, including, notably, has implemented the particular measures determined in the Environmental Management Plan within the scope attributable to the Investor (see description in Chapter 4.3) and supervised actions of the Contractor and of the Engineer.

As a result of the monitoring and/or supervisory measures conducted by the Contractor, the Engineer and the Investor, the following was confirmed within the reporting period:

- (a) 105 of the 124 mitigation measures specified in Appendix 1 of the EMP were implemented, including:
 - in case of 83 measures, no problems were identified with their implementation;
 - in case of 22 measures, problems and/or irregularities were identified in their implementation, as described in chapter 4.4
(in no case did they result in significant negative environmental impacts).
- (b) 19 of the 124 mitigation measures specified in Appendix 1 of the EMP were not implemented, including:
 - implementation of 19 measures was not necessary for the entire reporting period.

- (c) 124 of the 124 monitoring measures from Appendix 2 of the EMP were implemented, including:
- for any of the measures, no problems and/or irregularities were identified in their implementation.

A checklist for implementation of mitigation and monitoring measures listed under Appendix 1 and 2 to the EMP in the reporting period is presented in Appendix no. 1 to this *Report*.

8 REFERENCE DOCUMENTS

1. *Environmental Management Plan for Contract 3D.2/2 Expansion of the left and right embankment of the Biala River in the Tarnow Municipality and the City of Tarnow.* State Water Holding Polish Waters Regional Water Management Authority in Cracow, Cracow, January 2020.
2. *Progress Reports* submitted by the Contractor of Contract 3D.2/2 in the following months of the reporting period.
3. *Monthly and quarterly reports on the implementation of measures determined under the Environmental Management Plan for Contract 3D.2/2*, submitted by the Engineer in the following months/quarters of the reporting period (prepared 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 in the implementation of the Odra-Vistula Flood Management Project*).

9 LIST OF APPENDICES

Appendix no. 1. Checklist for implementation of measures listed under Appendix 1 and Appendix 2 to the EMP for Contract 3D.2/2.

Appendix no. 2. Photographic documentation.