

FINAL REPORT
ON IMPLEMENTATION OF MEASURES
DETERMINED IN THE ENVIRONMENTAL MANAGEMENT PLAN
for the Contract 3A.1
Works Contract 3A.1/1

Odra-Vistula Flood Management Project

OVFMP Subcomponent	3A Flood Protection of Upper Vistula Towns and Cracow
Works Contract Task	3A. 1/1 Modernization of Vistula embankments in Cracow – Section 1, Section 2
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
Contractor of Works	SKANSKA S.A. 173. Solidarności Avenue, 80-877 Warsaw, Poland
Engineer	AECOM Polska Sp. z o.o. Project Office: 1. Pokoju Avenue, 31-548 Cracow, 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 3A.1/1 *Modernization of Vistula embankments in Cracow – Section 1, Section 2*¹.

The report covers the following period:

- from the Commencement Date for the Works under Contract 3A.1/1 (i.e. **from February 15, 2021**);
- 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 27, 2022**).

The following was presented for the Contract:

- basic information on Contract 3A.1/1 (including e.g. the scope of works and basic deadlines for the Contract);
- basic information on the Environmental Management Plan for Contract 3A.1/1;
- organizational system for supervision over implementation of the EMP;
- status of implementation for mitigation measures listed in Appendix 1 to the EMP;
- status of implementation for monitoring measures listed in Appendix 2 to the EMP;
- description of other measures and events associated with the ESHS;
- summary.

¹ Environmental Management Plan for the Works Contract 3A.1/1 has been developed as a joint document for two Works Contracts implemented under Contract 3A.1 *Modernization of Vistula embankments in Cracow*, i.e. for the Works Contract 3A.1/1 *Modernization of Vistula embankments in Cracow – Section 1, Section 2* (remaining a subject of this report), and for the Works Contract 3A.1/2 *Modernization of Vistula embankments in Cracow – Section 3* (covered by a separate report on implementation of the EMP).

Therefore, the term: **Environmental Management Plan for Contract / Works Contract 3A.1/1** applied in this report shall be each time considered as: *Environmental Management Plan for Contract 3A.1, in the range referring to the Works Contract 3A.1/1*.

1 BASIC INFORMATION ON CONTRACT 3A.1/1

Works Contract 3A.1/1 *Modernization of Vistula embankments in Cracow – Section 1, Section 2* was implemented under *Odra-Vistula Flood Management Project* (OVFM Project), as a part of Component 3 *Flood Protection of the Upper Vistula* and Subcomponent 3A *Flood Protection of Upper Vistula Towns and Cracow*.

An agreement with the Contractor for Contract 3A.1/1 was signed on January 19, 2021. The works were commenced on February 15, 2021. The Time for Completion (680 days from the Commencement Date) expired on December 27, 2022.

Basic information about the Contract is presented below.

Name of the Contract:

Modernization of Vistula embankments in Cracow – Section 1, Section 2.

Contractor:

SKANSKA S.A.

173. Solidarności Avenue, 80-877 Warsaw, Poland

Scope of Works:

Contract 3A.1/1 concerns:

- (i) redevelopment of the left flood embankment at the River Vistula in Cracow, and
- (ii) redevelopment and development of the backwater embankments at the River Dłubnia, within seven sections¹, over a total length of about 9.7 km.

¹ According to the adopted schedule, the Works Contract 3A.1/1 has been broken down into seven sections:

- *Section 1.1* – section of the left Vistula embankment over a length of 1 142 m, from the Wandy Bridge to the estuary of Dłubnia (i.e. from km 0+000 to km 1+142, according to the working chainage of the embankment);
- *Section 1.2* – section of the left Vistula embankment over a length of 970 m, from the estuary of Dłubnia to the Kujawy port channel (i.e. from km 1+142 to km 2+097, according to the working chainage of the embankment, including a joining section for the embankment over a length of 15 m);
- *Section 1.3* – section of the left Vistula embankment over a length of 1 271 m, from the Kujawy port channel to the Przewóz water barrage at Vistula (i.e. from km 2+097 to km 3+317, according to the working chainage of the embankment, including two joining sections for the embankment over a length of 14 m and 37 m);
- *Section 1.4* – section of the right backwater Dłubnia embankment over a length of 1 830 m, from the estuary of Dłubnia to the bridge in the artery of national road no. 79 (T. Ptaszyckiego Street) in Cracow (i.e. from km 0+000 to km 1+830, according to the working chainage of the embankment);
- *Section 1.5* – section of the left backwater Dłubnia embankment over a length of 1 158 m, from the estuary of Dłubnia to the end of the existing backwater embankment at the crossing of Bardosa Street and Powiatowa Street in Cracow (i.e. from km 0+000 to km 1+136, according to the working chainage of the embankment, including two joining sections for the embankment over a length of 14 m and 8 m);

Basic dates for the Contract:

Agreement signing date:	January 19, 2021
Date of handing over the construction site:	February 15, 2021
Commencement Date for the Works:	February 15, 2021
Time for Completion:	680 days from the Commencement Date
Signing date for Annex no. 1:	December 14, 2021
Signing date for Annex no. 2:	August 24, 2022
Completion Date for the Works (according to the Time for Completion):	December 27, 2022
Date of issue of the Taking-Over Certificate:	February 8, 2023

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- *Section 1.6* – new section of the left backwater Dłubnia embankment over a length of 476 m, remaining an extension of the existing backwater embankment running north-west and west, at estates located along Bardosa Street in Cracow (i.e. from km 1+136 to km 1+612, according to the working chainage of the embankment);
 - *Section 2* – section of the left Vistula embankment over a length of 2890 m, from the Przewóz Barrage at Vistula to Suchy Jar (i.e. from km 0+000 to km 2+875, according to the working chainage of the embankment, including two joining sections for the embankment over a length of 3 m and 12 m).

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

Environmental Management Plan for the Works Contract 3A.1/1 has been developed as a joint document for two Works Contracts implemented under Contract 3A.1 *Modernization of Vistula embankments in Cracow*, i.e. for the Works Contract 3A.1/1 *Modernization of Vistula embankments in Cracow – Section 1, Section 2* (remaining a subject of this report), and for the Works Contract 3A.1/2 *Modernization of Vistula embankments in Cracow – Section 3* (covered by a separate report on implementation of the EMP). Therefore, the term: **Environmental Management Plan for Contract / Works Contract 3A.1/1** applied in this report shall be each time considered as: *Environmental Management Plan for Contract 3A.1, in the range referring to the Works Contract 3A.1/1*.

The Environmental Management Plan for Contract 3A.1/1 was developed in March 2020 (final version). On March 24, 2020 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 3A.1/1 contains 124 mitigation measures, which are to prevent and limit adverse impact of the contract on the environment. Those measures result from contents of the decisions 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 19 categories:

- a) requirements on schedule of works
(items no. 1-2 under Appendix 1 to the EMP);
- b) requirements on road access to the Contract area
(items no. 3-12 under Appendix 1 to the EMP);
- c) requirements on locations of site facilities and service roads and yards
(items no. 13-23 under Appendix 1 to the EMP);
- d) requirements on the quality and management of soils
(items no. 24-25 under Appendix 1 to the EMP);
- e) requirements on proceeding with topsoil/mineral soil
(items no. 26-31 under Appendix 1 to the EMP);

- f) requirements on removing (felling) trees and shrubs
(items no. 32-34 under Appendix 1 to the EMP);
- g) requirements on protecting trees and shrubs not intended for removal (felling)
(items no. 35-41 under Appendix 1 to the EMP);
- h) requirements on securing protected natural resources
(items no. 42-55 under Appendix 1 to the EMP);
- i) requirements on reinstatement of the site after the completion of construction works
(items no. 56-57 under Appendix 1 to the EMP);
- j) requirements on the prevention of the environmental pollution
(items no. 58-83 under Appendix 1 to the EMP);
- k) requirements on waste management
(items no. 84-88 under Appendix 1 to the EMP);
- l) requirements on health and safety protection
(items no. 89-93 under Appendix 1 to the EMP);
- m) requirements on extraordinary threats to the environment
(items no. 94-96 under Appendix 1 to the EMP);
- n) requirements on protection of cultural heritage
(items no. 97-101 under Appendix 1 to the EMP);
- o) requirements on the Contractor's staff engaged in the implementation of the EMP
(items no. 102-107 under Appendix 1 to the EMP);
- p) requirements on reporting
(item no. 108 under Appendix 1 to the EMP);
- q) requirements after completion of works
(items no. 109-111 under Appendix 1 to the EMP);
- r) remaining ESHS requirements
(items no. 112-121 under Appendix 1 to the EMP);
- s) requirements related to demolition of engineering objects and fences
(items no. 122-124 under Appendix 1 to the EMP).

The majority of the above-mentioned mitigation measures relate to both Works Contracts covered by a common EMP for Contract 3A.1 (114 out of 124 items under Appendix 1 to the EMP). Six mitigation measures (items 15, 16, 19, 36, 75, and 97 under Appendix 1 to the EMP) apply exclusively to Contract 3A.1/1, and four mitigation actions (items 17, 33, 98, and 99 under Appendix 1 to the EMP) apply exclusively to Contract 3A.1/2.

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 3A.1/1 contains a set of 124 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 3A.1/1

Supervision over implementation of mitigation measures and monitoring measures determined in the EMP for Contract 3A.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 accordance with item no. 103 in Appendix 1 to the EMP, in order to provide support to the Site Manager in the implementation of the EMP, the EMP Coordinator has been appointed in the Contractor's team. 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. 104, 105, and 106 under Appendix 1 to the EMP, the Contractor assured participation of expert teams of environmental, archaeological and sap-per supervision, in the scope compliant with the EMP requirements.

After completing each month, the EMP 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 appropriate attachments (including notes, opinions, environmental supervision reports, 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 contract. The Environmental Management Expert was in an ongoing contact with the Site Manager and with the EMP 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 Environmental Specialist, 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 Environmental Specialist 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 Environmental Specialist 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 ODRA-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 Environmental Specialist 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 EMP Coordinator of the Contractor's team. 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 3A.1/1, units responsible for implementation of mitigation measures determined under Appendix 1 to the EMP are as follows: **the Contractor (124 measures:** items no. 1-124 under Appendix 1 to the EMP), **Engineer (3 measures:** items no. 22, 23, 120 under Appendix 1 to the EMP) and **the Investor (2 measures:** items no. 22, 23 under Appendix 1 to the EMP). In total, the EMP for Contract 3A.1/1 envisages implementation of 124 mitigation measures^{1,2}, including at least 113 measures to be implemented within the reporting period (in case of remaining 11 measures it was not necessary to implement them – see: below).

4.1 CONTRACTOR'S MEASURES

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 113 (91.1%) mitigation measures, including:
 - 89 (71.8%) measures were implemented in the scope required within the reporting period
(items no. 1, 6, 7, 8, 10, 11, 13, 18, 19, 20, 21, 22, 23, 25, 26, 28, 29, 31, 32, 34, 36, 38, 40, 41, 42, 43, 44, 45, 46, 47, 49, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 74, 75, 76, 77, 78, 79, 80, 81, 83, 86, 87, 88, 90, 91, 93, 95, 97, 100, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 114, 115, 116, 117, 118, 119, 120, 121, 123, 124 under Appendix 1 to the EMP);
 - in case of 24 (19.3%) measures issues and / or inconsistencies associated with their implementation – as discussed in chapter 4.4 – were identified
(items no. 2, 3, 4, 5, 9, 14, 16, 24, 27, 30, 35, 37, 39, 48, 60, 82, 84, 85, 89, 92, 94, 112, 113, 122 under Appendix 1 to the EMP).
- b) Within the reporting period the Contractor was not implementing 11 (8.9%) mitigation measures, including:
 - implementation of 7 (5.6%) measures was not necessary throughout the entire period included in this report
(items no. 12, 15, 50, 51, 73, 96, 101 under Appendix 1 to the EMP);
 - 4 (3.2%) measures were not related to the scope of Contract 3A.1/1³
(items no. 17, 33, 98, 99 under Appendix 1 to the EMP);

¹ Including 120 mitigation measures forming the factual scope of Contract 3A.1/1, and 4 measures referring to the Contract 3A.1/2 only (items 17, 33, 98, 99 under Appendix 1 to the EMP) – see: description referring to the EMP for Contract 3A.1/1, as given in a footnote to the introduction to this *Report*.

² 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.

³ These are mitigation measures referring only to the Contract 3A.1/2, which are not included in the scope of Contract 3A.1/1 (see also: description in Chapters 2 and 2.1 in this *Report*).

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

Mitigation measures were implemented by the Contractor with the participation of, among others, Site Manager, EMP Coordinator, environmental supervision team, 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: Senior Environmental Management Expert, Senior Real Estate Specialist, senior supporting experts – Supervising Inspectors, key expert – Resident Engineer, and Project Manager), and by the Investor's team (with participation of the following persons: Environmental Specialist, Resettlement Specialists, and PIO Manager).

4.2 ENGINEER'S MEASURES

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 3 (2.4%) mitigation measures, including:
 - 3 (2.4%) measures were implemented in the scope required within the reporting period (items no. 22, 23, 120 under Appendix 1 to the EMP).
 - in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.
- b) Within the reporting period there was no case of missing implementation of mitigation measures assigned to the Engineer.

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

4.3 INVESTOR'S MEASURES

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 2 (1.6%) mitigation measures, including:
 - 2 (1.6%) measures were implemented in the scope required within the reporting period (items no. 22, 23 under Appendix 1 to the EMP).
 - in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.
- b) Within the reporting period there was no case of missing implementation of mitigation measures assigned to the Investor.

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 24 mitigation measures from Appendix 1 to the EMP for Contract 3A.1/1 (in order compliant with numbers of items under Appendix 1 to the EMP) were identified:

- 1) Items no. 2, 3, 4, 9, 112, 122 under Appendix 1 to the EMP
Delay in finalizing agreements with Road Administrators regarding the marking of access roads to the construction site [from the 1st quarter of 2021 to the 2nd quarter of 2021]:

In the first and second quarter of 2021, the Contractor was conducting negotiations with Road Administrators regarding the use and final marking of access roads to the construction site. Until the aforementioned agreements were concluded (in the second quarter of 2021), the movement of construction vehicles on access roads in the municipality of Kraków was carried out on the basis of temporary permits issued by the Road Administration of the City of Kraków. The complete set of agreed *Traffic Organization Plans* was handed over by the Contractor to the Engineer in June and July 2021.

- 2) Items no. 5, 82, 112, 122 under Appendix 1 to the EMP
Pollution of access roads to the construction site [in the 2nd quarter of 2021]:

In the reporting period, the Contractor implemented ongoing activities aimed at protecting access roads to the construction site from pollution. Despite the measures taken, in the second quarter of 2021, cases of pollution of access roads to the construction site with sand and mud moved by vehicles were observed. Upon Engineer's request, the Contractor immediately restored the road surface to the proper condition.

- 3) Items no. 14, 16, 60, 2, 112, 122 under Appendix 1 to the EMP
Partial implementation of the EMP conditions regarding the location of equipment and material bases and social facilities. [from the 1st quarter of 2021 to the 4th quarter of 2022]:

In March 2021, the Contractor submitted the planned locations of equipment and material bases and social facilities for the Engineer's approval. Some of the proposed locations did not meet some of the conditions referred to in item no. 14, 16, and 60 under Appendix 1 to the EMP (including failure to maintain the required distance from water reservoirs and/or residential buildings, location outside the places referred to in item no. 16 under Appendix 1 to the EMP, etc.). The Contractor presented to the Engineer a detailed justification for the impossibility of organizing equipment and material bases in the places indicated in the EMP and presented the opinions of the environmental supervision regarding the locations proposed by him. As can be seen from the opinions presented, thanks to the implementation of appropriate mitigating actions, the designation of the location of the above-mentioned elements of the construction site in the places proposed by the Contractor will not pose a threat to protected natural environment resources. In April 2021, the Engineer

accepted the proposed locations, provided that additional mitigating actions specified by the Engineer in the acceptance letter were effectively implemented. In the period from the second quarter of 2021 to the fourth quarter of 2022, the Contractor ensured the implementation of the above-mentioned mitigating actions in the locations concerned. During the reporting period, there were no significant environmental impacts resulting from the presence of the above-mentioned construction site elements in approved locations.

- 4) Items no. 24, 84, 89, 94, 2, 112, 122 under Appendix 1 to the EMP
Delays in editing and agreeing of contract documents required in the EMP
[from the 1st quarter of 2021 to the 2nd quarter of 2021]:

In the first quarter of 2021, the Contractor did not complete the editing and/or did not obtain the Engineer's approval for some of the documents referred to in item 24, 84, 89, and 94 under Appendix 1 to the EMP. Activities related to the development and approval of the documents in question were completed in the second quarter of 2021.

- 5) Items no. 35, 2, 112, 122 under Appendix 1 to the EMP
Cases of failure to secure trees and shrubs not intended for felling,
as well as cases of damage to the ground parts of trees and shrubs not intended
for removal at the stage of felling works
[from the 1st quarter of 2021 to the 4th quarter of 2022]:

In the period from the first quarter of 2021 to the fourth quarter of 2022, cases of lack or insufficient protection of trees and shrubs growing in places currently exposed to damage were found. The Contractor supplemented the above-mentioned protection on an ongoing basis, and in case of damage to trunks or branches necessary maintenance activities were carried out in accordance with the EMP conditions.

- 6) Items no. 37, 39, 85, as well as 27, 30, and 2, 112, 122 under Appendix 1 to the EMP
Cases of failure to maintain the required distance from trees and shrubs
not intended for felling.
[from the 1st quarter of 2021 to the 4th quarter of 2022]:

In the period from the first quarter of 2021 to the fourth quarter of 2022, due to the spatial limitations of the construction site, cases of failure to maintain the required distance from the boundary of the tree and shrub crown projection were found (including the location of vehicles and machines traffic routes, storage places of building materials and earth masses, etc.). The Contractor's environmental supervision carried out ongoing inspections of the above-mentioned places and in no case did he find that the described situations posed a threat to the health of trees and shrubs.

- 7) Items no. 48, 112, 122 under Appendix 1 to the EMP
Issues with removal of water pits at the construction site
[from the 3rd quarter of 2021 to the 4th quarter of 2021]:

From the second quarter of 2020 to the fourth quarter of 2021, the presence of water pits, which may potentially be inhabited by protected species of amphibians, was identified within the site of works. Due to the local configuration of the site, the removal of those water pits was difficult and – despite the measures undertaken by the Contractor – it has not been efficiently done in all locations. The Contractor's environmental supervision

provided ongoing inspections for the aforementioned sites, and has not identified the presence of protected amphibian species.

- 8) Items no. 92, 112, 113 under Appendix 1 to the EMP
Problems with ensuring safety at the construction site
[in the 2nd quarter of 2022]:

In the second quarter of 2022, an accident involving a Contractor's employee occurred on the construction site of Contract 3A.1/1. On 05/30/2022, while entering the crane cabin to retrieve a protective helmet, the Contractor's employee failed to maintain balance and fell, hitting the ground with the back of his head. The employee notified the work manager about the incident and was immediately taken to the Hospital Emergency Department in Krakow. After the head was treated, the employee was discharged from the Emergency Department. Medical examinations did not indicate the need for sick leave – the employee returned to work the next day. The Contractor's occupational health and safety services carried out the necessary training activities related to the accident. The Contractor informed the Engineer about the above-mentioned incident on 05/30/2022 and sent a written health and safety note regarding the incident on the same day. On the same day, the Engineer forwarded the received information to the Employer, in accordance with applicable contract procedures.

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

In accordance with contents of Appendix 2 to the EMP for Contract 3A.1/1, units responsible for implementation of monitoring measures determined under Appendix 2 to the EMP are as follows: **the Contractor (124 measures:** items 1-124 under Appendix 2 to the EMP), **the Engineer (124 measures:** items 1-124 under Appendix 2 to the EMP), and **the Investor (2 measures:** items 22, 23 under Appendix 2 to the EMP). In total, the EMP for Contract 3A.1/1 envisages implementation of 124 monitoring measures¹, and all of the measures shall be implemented 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 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 was implementing 124 (100.0%) monitoring measures, including:
 - 124 (100.0%) measures were implemented in the scope required within the reporting period (items no. 1-124 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 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 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 was implementing 124 (100.0%) monitoring measures, including:
- 124 (100.0%) measures were implemented in the scope required within the reporting period (items no. 1-124 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 124 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 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 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 was implementing 2 (1.6%) monitoring measures, including:
- 2 (1.6%) measures were implemented in the scope required within the reporting period (items no. 22, 23 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 supervising implementation of 124 monitoring measures assigned, in accordance with Appendix 2 to the EMP, to the Contractor and to the Engineer.

Above-mentioned activities 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 for Contract 3A.1/1, within the reporting period no issues nor inconsistencies with implementation of the monitoring measures listed in Appendix 2 to the EMP were identified.

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 was carrying out works within the framework of Contract 3A.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 3A.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 first quarter of 2021 to the first quarter of 2022 the Contractor was providing the Engineer with weekly reports on situation referring to that threat for Contract 3A.1/1.

6.2 ACTIONS OF THE ENGINEER

Within the reporting period the Engineer was supervising works carried out within the framework of Contract 3A.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 3A.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 first quarter of 2021 to the first quarter of 2022 the Engineer was monitoring the situation on Contract 3A.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 3A.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.

6.4 OTHER ACTIONS

Not applicable to the present reporting period.

6.5 EXCEPTIONAL EVENTS, THREATS AND CATASTROPHES

Not applicable to the present reporting period.

6.6 ACCIDENTS

6.6.1 Accidents with participation of Contractor's employees

In the second quarter of 2022, an accident involving a Contractor's employee occurred on the construction site of Contract 3A.1/1. On 05/30/2022, while entering the crane cabin to retrieve a protective helmet, the Contractor's employee failed to maintain balance and fell, hitting the ground with the back of his head. The employee notified the work manager about the incident and was immediately taken to the Hospital Emergency Department in Krakow. After the head was treated, the employee was discharged from the Emergency Department. Medical examinations did not indicate the need for sick leave – the employee returned to work the next day. The Contractor's occupational health and safety services carried out the necessary training activities related to the accident. The Contractor informed the Engineer about the above-mentioned incident on 05/30/2022 and sent a written health and safety note regarding the incident on the same day. On the same day, the Engineer forwarded the received information to the Employer, in accordance with applicable contract procedures. The Contractor's letter with information about the above-mentioned event is presented in Appendix no. 3 to the *Monthly Report on EMP Implementation* for May 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

No events associated with cases of sexual harassment and mobbing were recorded 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 3A.1/1 *Modernization of Vistula embankments in Cracow – Section 1, Section 2* 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 Contract 3A.1/1 (i.e. **from February 15, 2021**);
- 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 27, 2022**).

Within the reporting period the Contractor was carrying out the works in the range given in the Contract 3A.1/1 (see: description in chapter 1), including e.g. implementation of 113 mitigation measures determined in the EMP (see: description in chapter 4.1), monitoring of implementation for all of the 124 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 works in progress within the framework of Contract 3A.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 all 124 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 3A.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 2 mitigation measures determined in the EMP (see: description in chapter 5.3), and supervision over actions of the Contractor and of the Engineer.

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

- a) 113 out of 124 mitigation measures listed in Appendix 1 to the EMP were implemented, including:
 - issues with implementation were not identified in case of 89 measures;
 - issues and / or inconsistencies associated with implementation were identified in case of 24 measures, described in chapter 4.4
(in no case did they cause significant negative impacts on the environment).

- b) 11 out of 124 mitigation measures listed in Appendix 1 to the EMP were not implemented, including:
 - implementation of 7 measures was not necessary throughout the entire reporting period;
 - 4 measures were not related to the scope of Contract 3A.1/1.
- c) 124 out of 124 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 3A.1 Modernization of Vistula embankments in Cracow.*
State Water Holding Polish Waters, Regional Water Management Authority in Cracow. Cracow, March 2020.
2. *Progress Reports* provided by the Contractor for Contract 3A.1/1 in subsequent months of the reporting period.
3. *Monthly Reports and Quarterly Reports on EMP Implementation* for Contract 3A.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*).

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 3A.1/1.

Appendix no. 2. Photo documentation.