FINAL REPORT

on implementation of measures determined

IN THE ENVIRONMENTAL MANAGEMENT PLAN

for the Contract 3A.2

Odra – Vistula Flood Management Project

OVFMP Subcomponent	3A Flood protection of Upper Vistula Towns and Cracow
Contract / Works Contrakt	**3A.2 Flood protection in Serafa valley**
	3A.2/1 Flood protection in Serafa Valley – Malinówka 1 reservoir **3A.2/2 Flood protection in Serafa Valley – Malinówka 2 reservoir**
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 (PIU)	Project Implementation Office in Cracow 22. Marszałka J. Piłsudskiego Street, 31-109 Cracow, Poland
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TABLE OF CONTENTS

INTRODUCTION **4**

1 BASIC INFORMATION ON CONTRACT 3A.2 ..... **5**

2 BASIC INFORMATION ON THE EMP FOR CONTRACT **9**

2.1 MITIGATION MEASURES DETERMINED IN APPENDIX 1 TO THE EMP 9
2.2 MONITORING MEASURES DETERMINED IN APPENDIX 2 TO THE EMP 10

3 SYSTEM OF SUPERVISION OVER IMPLEMENTATION OF MEASURES DETERMINED IN THE EMP FOR CONTRACT 3A.2 ..... **11**

3.1 CONTRACTOR 11
3.2 ENGINEER 11
3.3 PROJECT IMPLEMENTATION OFFICE (PIU) 11
3.4 PROJECT COORDINATION UNIT (PCU) 12

4 IMPLEMENTATION STATUS FOR MITIGATION MEASURES UNDER APPENDIX 1 TO THE EMP **13**

4.1 CONTRACTOR'S MEASURES 13
4.2 ENGINEER'S 14
4.3 INVESTOR'S MEASURES 14
4.4 ISSUES REFERRING TO IMPLEMENTATION OF MITIGATION MEASURES LISTED IN APPENDIX 1 TO THE EMP 15

5 IMPLEMENTATION STATUS FOR MONITORING MEASURES UNDER APPENDIX 2 TO THE EMP **17**

5.1 CONTRACTOR'S MEASURES 17
5.2 ENGINEER'S MEASURES 17
5.3 INVESTOR'S MEASURES 18
5.4 ISSUES REFERRING TO IMPLEMENTATION OF MONITORING MEASURES LISTED IN APPENDIX 2 TO THE EMP 18

6 OTEHR ACTIONS AND EVENTS RELATED TO THE ENVIRONMENT, LOCAL SOCIETY, HEALTH AND SAFETY, SUMMARY **19**

6.1 ACTIONS OF THE CONTRACTOR 19
6.2 ACTIONS OF THE ENGINEER'S/ CONSULTANT'S 19
6.3 ACTIONS OF THE INVESTOR 19
6.4 OTHER ACTIONS 20
6.5 EXCEPTIONAL EVENTS, THREATS AND CATASTROPHES 20
6.6 ACCIDENTS 20
6.7 SECURING CONDITIONS OF PAYMENT AND WORK FOR THE PERSONNEL 21
6.8 PREVENTING CASES OF SEXUAL HARASSMENT AND MOBBING 21

7 SUMMARY **22**

8 SOURCE MATERIALS **24**

9 LIST OF APPENDICES **25**

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 *Flood protection in Serafa valley – Malinówka 1 reservoir, Malinówka 2 reservoir (3A.2/1 and 3A.2/2).*

The report covers the following period:

- from the Commencement Date for the Works under Contract 3A.2

  (i.e. from **September 27, 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 **September 27, 2023**).

The following was presented for the Contract:

- basic information on Contract 3A.2

  (including e.g. the scope of works and basic deadlines for the Contract);
- basic information on the Environmental Management Plan for Contract 3A.2;
- 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 ES;
- summary.

1 BASIC INFORMATION ON CONTRACT 3A.2

Works Contract *Flood protection in Serafa valley – Malinówka 1 reservoir, Malinówka 2 reservoir (3A.2/1 and 3A.2/2)* is implemented under *Odra-Vistula Flood Management Project* (OVFM Project), as a part of Component 1 *Flood protection of the Middle and Lower Odra* and Subcomponent 1B *Flood protection on the Middle and Lower Odra.*

An agreement with the Contractor for Contract 3A.2 has been signed on August 5, 2021. On September 22, 2021, the Investor handed over the construction site to the Contractor, and the commencement of works took place on September 27, 2021. The Time for Completion expired on September 27, 2023.

Basic information about the Contract is presented below.

Name of the Contract:

Flood protection in Serafa valley – Malinówka 1 reservoir, Malinówka 2 reservoir (3A.2/1 and 3A.2/2)

Contractor:

SKANSKA S.A.
173. Solidarności Av., 00-877 Cracow, Poland

Scope of Works:

Works Contract *Flood protection in Serafa valley – Malinówka 1 reservoir, Malinówka 2 reservoir (3A.2/1 and 3A.2/2)* concerns the construction of two dry small retention reservoirs in the Serafa river-basin:

- Works Contract 3A.2/1

Flood protection in Serafa Valley – Malinówka 1 reservoir;

- Works Contract 3A.2/2

Flood protection in Serafa Valley – Malinówka 2 reservoir.

The above-mentioned reservoirs, together with 3 others not covered by this Contract, shall operate as a part of cascade comprising five small dry flood storage reservoirs in the Serafa river-basin: two at the River Serafa (the existing Bieżanów Reservoir and completed Serafa 2 Reservoir) and three at the Malinówka Stream (reservoirs: Malinówka 1, Malinówka 2, and planed Malinówka 3 Reservoir).
The purpose of building these reservoirs is to directly improve flood protection of the areas below each of them, while the purpose of building the entire cascade of five reservoirs is to improve flood protection in the Serafa River valley, including the Złocień and Stary Bieżanów estates in Cracow.

Within the scope of the Works Contract 3A.2/1 the dry flood storage reservoir Malinówka 1 was built at chainage km 0+231 of the Malinówka Stream (with an earth-fill front dam, earth-fill side dams, spillway and discharge facilities, and a stilling basin), having the following parameters:

- hydraulic class of the structure – III
- damming height – 4.8 m
- maximum damming elevation (MaxSL) – 216.5 m a.s.l.
- capacity of the reservoir at MaxSL – 114 000 m^3
- flood area at MaxSL – about 6.2 ha
- flow $Q_{0.2\%}$ at the inlet to the reservoir – 14.35 m^3/s
- flow $Q_{0.5\%}$ at the inlet to the reservoir – 6.23 m^3/s
- flow $Q_{1\%}$ at the inlet to the reservoir – 4.18 m^3/s
- reduced flow $Q(reduced)_{0.2\%}$ – 8.0 m^3/s
- reduced flow $Q(reduced)_{0.5\%}$ – 2.56 m^3/s
- allowed flow $Q(allowed)_{1\%}$ – 1.93 m^3/s
- dam's crest elevation – 217.2 m a.s.l.
- crest width of the front dam – 4 m
- crest width of the side dams – 3 m
- length of the front dam – about 80 m
- length of the right dam's crest – about 340 m
- length of the left dam's crest – about 434 m
- riverside slope inclination – 1:3
- landside slope inclination – 1:2.5
- shutter in the body and in the subbase
- slopes protected with anti-erosive mat and sown with a mix of grass
- time of retention – up to 24 hours.

An island was made in the bowl of the dry reservoir, protecting environmentally valuable trees, with a total area of about 0.8 ha.
The existing infrastructure was rebuilt, i.e. storm drainage, water supply and sewage networks, and drainage ditches. High voltage overhead power lines (HV) were also subject to redevelopment.

Within the scope of the Works Contract 3A.2/1 the dry flood storage reservoir Malinówka 2 was built at chainage km 2+279 of the Malinówka Stream (with an earth-fill front dam, spillway and discharge facilities, and a stilling basin), having the following parameters:

- hydraulic class of the structure – III
- damming height – 3.8 m
- maximum damming elevation (MaxSL) – 229.5 m a.s.l.
- capacity of the reservoir at MaxSL – 49 000 m^3
- flood area at MaxSL – about 2.3 ha
- flow Q0.2% at the inlet to the reservoir – 14.74 m^3/s

- flow Q0.5% at the inlet to the reservoir – 6.02 m^3/s
- flow Q1% at the inlet to the reservoir – 3.44 m^3/s
- reduced flow $Q(reduced)_{0.2\%}$ – 13.27 m^3/s
- reduced flow $Q(reduced)_{0.5\%}$ – 3.86 m^3/s
- allowed flow $Q(allowed)_{1\%}$ – 2.28 m^3/s
- dam's crest elevation – 230.2 m a.s.l.
- crest width – 4 m
- length of the front dam – about 105 m
- riverside slope inclination – 1:3
- landside slope inclination – 1:2.5
- shutter in the body and in the subbase
- slopes protected with anti-erosive mat and sown with a mix of grass
- time of retention – up to 24 hours.

The existing infrastructure was rebuilt, i.e. the sanitary sewage system, ditches and elements of the drainage network with outlets. The overhead low-voltage power line (LV) was also subject to reconstruction. The closed water supply system was dismantled and three individual surface water intakes were liquidated.

Basic dates for the Contract:

Agreement signing date: August 5, 2021

Date of handing over the Construction Site: September 22, 2021

Commencement Date for the Works: September 27, 2021

Completion Date for the Works

- (according to the Time for Completion): 735 days from the date of handing over the Construction Site - September 27, 2023.

Date of signing Annex No. 1: September 20, 2021.

Date of signing Annex No. 2: February 25, 2022.

Date of signing Annex No. 3: April 28, 2022.

Date of signing Annex No. 4: August 2, 2022.

Date of signing Annex No. 5: October 31, 2022.

Date of signing Annex No. 6: November 29, 2022.

Date of signing Annex No. 7: February 17, 2023.

Date of signing Annex No. 8: May 29, 2023.

Date of signing Annex No. 9: August 29, 2023.

Date of signing Annex No. 10: October 3, 2023.

2 BASIC INFORMATION ON THE EMP FOR CONTRACT

The Environmental Management Plan for Contract 3A.2 has been developed in December 2020 (final version). On January 14, 2021 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.2 contains 101 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 and implementation of the EMP
(items no. 1-2 under Appendix 1 to the EMP);
b) requirements on purchase and compensation
(items no. 3-4 under Appendix 1 to the EMP);
c) requirements on road access to the *Contract area*
(items no. 5-12 under Appendix 1 to the EMP);
d) requirements on locations of site facilities and service roads and yards
(items no. 13-15 under Appendix 1 to the EMP);
e) requirements on removal of trees and shrubs
(items no. 16-17 under Appendix 1 to the EMP);
f) requirements on protection of trees and shrubs not to be logged
(items no. 18-23 under Appendix 1 to the EMP);
g) requirements on securing protected natural resources
(items no. 24-40 under Appendix 1 to the EMP);
h) requirements on ground management (including top-soil)
(items no. 41-44 under Appendix 1 to the EMP);
i) requirements on land reinstatement and use of reservoirs after the completion
(items no. 45-48 under Appendix 1 to the EMP);

j) requirements on prevention of pollution emission to the ground and water environment
(items no. 49-59 under Appendix 1 to the EMP);
k) requirements on prevention of pollution emission to the air
(items no. 60-62 under Appendix 1 to the EMP);
l) requirements on prevention of noise emission
(items no. 63-66 under Appendix 1 to the EMP);
m) requirements on waste management
(items no. 67-71 under Appendix 1 to the EMP);
n) requirements on protection of health and safety of people
(items no. 72-78 under Appendix 1 to the EMP);
o) requirements on exceptional hazards to the environment
(items no. 79-81 under Appendix 1 to the EMP);
p) requirements on the protection of cultural heritage
(items no. 82-83 under Appendix 1 to the EMP);
q) requirements on the Contractor's personnel implementing the EMP
(items no. 84-88 under Appendix 1 to the EMP);
r) requirements on implementation reports for the EMP
(items no. 89-90 under Appendix 1 to the EMP);
s) remaining ESHS requirements
(items no. 91-101 under Appendix 1 to the EMP);

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

2.2 MONITORING MEASURES DETERMINED IN APPENDIX 2 TO THE EMP

Appendix 2 to the EMP for Contract 3A.2 contains a set of 101 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 break-down 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.2

Supervision over implementation of mitigation measures and monitoring measures determined in the EMP for Contract 3A.2 was performed on the level of all of the organizational units participating in the Contract implementation, i.e. Contractors, Engineer, Project Implementation Office (PIU), 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. 84 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. 85, 86 and 87 under Appendix 1 to the EMP, the Contractor assured participation of expert teams of environmental, archaeological and sapper 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 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 (PIU)

Direct supervision over implementation of the EMP conditions by the Project Implementation Office (PIU) was done by the Environmental Specialist, who cooperated in that range with the PIU Manager, with other members of the PIU team, as well as with other organization units of

the RZGW in Cracow. The Environmental Specialist and the PIU 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 PIU Manager were verifying environmental documentation of the Contract, and subsequently quarter reports handed over to the Project Coordination Unit (in the scope compliant with the EMP conditions).

3.4 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 PIU Manager and with the Environmental Specialist of the PIU team. He was also cooperating with persons responsible for implementation of the EMP on the side of remaining organizational units of the construction 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 PIU, 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.2/1 and 3A.2/2, units responsible for implementation of mitigation measures determined under Appendix 1 to the EMP are as follows: **the Contractor** (**100 measures**: items no. 1-2, 4-101 under Appendix 1 to the EMP), **the Engineer** (**3 measures**: items no. 3, 4 and 99 under Appendix 1 to the EMP) and **the Investor** (**5 measures**: items no. 3, 4 and items no. 46, 47 and 48 after the Defects Notification Period ends under Appendix 1 to the EMP). In total, the EMP for Contract 3A.2/1 and 3A.2/2 envisages implementation of 101 mitigation measures, including at least 89 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 89 (ca. 89%) mitigation measures, including:
   - 84 (ca. 84%) measures were implemented in the scope required within the reporting period (items no. 1, 2, 4, 5, 6, 7, 8, 9, 11, 13, 14, 15, 16, 17, 18, 20, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 67, 68, 69, 70, 71, 72, 73, 76, 77, 78, 79, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 93, 94, 95, 96, 97, 98, 99, 100, 101 under Appendix 1 to the EMP);
   - in case of 5 measures issues and / or inconsistencies associated with their implementation – as discussed in chapter 4.4 (items no. 10, 19, 43, 75 i 92 under Appendix 1 to the EMP).

b) Within the reporting period the Contractor was not implementing 11 (ca. 11%) mitigation measures, including items no. 12, 21, 22, 23, 48, 59, 65, 66, 74, 80, 81 under Appendix 1 to the EMP.

c) 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, environmental experts team: botany - phytosociology expert, dendrologist, zoologist - invertebrate expert, zoologist - herpetologist, zoologist - ornithologist, zoologist - chiropterologist, zoologist – theriologist. An EMP Coordinator has been appointed to supervise the activities of a team of environmental experts, an archaeological supervision team, a sapper supervision team and an OHS 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, Environmental Management Expert, Senior Supporting Expert for Technical

Assistance and Real Estate, Key Expert - Real Estate Specialist, Senior Supporting Experts - Supervision Inspectors and Key Expert - Resident Engineer/Supervision Inspector.

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 (ca. 3%) mitigation measures, including:
   - 3 (ca. 3%) measure were implemented in the scope required within the reporting period (items no. 3[1], 4[2] and 99[3] under Appendix 1 to the EMP);
   - in case of none of the measures issues and / or inconsistencies associated with their implementation were identified.

b) In the reporting period, there were no mitigation measures that the Engineer would not implement.

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

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 3.1).

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 (ca. 2%) mitigation measures, including:
   - 2 (ca. 2%) measures were implemented in the scope required within the reporting period (items no. 3, 4 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 the Investor did not implement 3 (ca. 3%) mitigating measures, including:

[1] the action was carried out to the extent consistent with the Bank's requirements, before the commencement of construction works, however, during the implementation of the works, compensation was paid by the Investor after the final decision on determining the amount of compensation issued by the Voivode of Małopolska - the Engineer participated in correspondence with the authority issuing the decisions in question and obtained PAP statements about the account number for compensation payments

[2] the Engineer supervised the correctness of the regulation of contractual matters between the Contractor and PAP providing the real estate for temporary occupation.

[3] this action consisted in preparing by the Engineer and providing the Contractor with procedures for current information about problems in the field of ES, this action was implemented immediately after the commencement of the Contract

- the implementation of 3 (approx. 3%) measures did not concern the reporting period, these are measures to be taken only after the end of the Defects Notification Period (items no. 46, 47 and 48 under Appendix 1 to the EMP);
- cases of missing implementation for measures required within the reporting period were not identified.

Mitigation measures were implemented by the Investor at participation of selected members of the PIU's team: Environmental Specialist, Resettlement Specialist and Head of PIU.

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 5 mitigation measures from Appendix 1 to the EMP for Contract 3A.2 (in order compliant with numbers of items under Appendix 1 to the EMP) were identified:

1) Cases of pollution of access roads to the construction site with dirt
[related to item no. 10 under Appendix 1 to the EMP]:
In the third quarter of 2022, cases of pollution by the Contractor of access roads to the construction site with dirt were recorded. After the Engineer indicated cases of mud pollution of public roads, the Contractor increased supervision over regular cleaning of roads during wet periods and in the subsequent period, until the completion of the Works, no such events occurred. There was no threat to road traffic.

2) Cases of failure to protection of trees and shrubs not intended for felling
[related to item no. 19 under Appendix 1 to the EMP]:
In the fourth quarter of 2021, the Contractor carried out activities in the field of ongoing protection of trees not intended for felling (fencing the area in the projection of the tree crown), but these activities were not carried out to their full extent (some of the trees and shrubs growing in close proximity to the places currently carried out and planned works, technological roads, etc. were not properly secured). The Contractor's environmental supervision carried out ongoing inspections of the above-mentioned places and did not find that the described cases posed a threat to the health of trees and shrubs.

3) Cases of improper implementation of EMP recommendations/provisions regarding topsoil storage
[related to item no. 43 under Appendix 1 to the EMP]:
In the fourth quarter of 2021, the Contractor carried out Works related to the storage of collected top-soil, but there were problems with the proper marking of the piles. Once directed by the Engineer, the marking was completed and was properly maintained and corrected until completion of this activity. The Contractor's environmental supervision carried out ongoing inspections of the piles of stored topsoil and did not find that the described cases resulted in a threat to the topsoil.

4) Problems with implementing guidelines regarding occupational safety requirements [related to items no. 75 and 92 under Appendix 1 to the EMP]:
In the period from the fourth quarter of 2021 to the third quarter of 2023, the Engineer, conducting regular occupational health and safety inspections, noted individual cases of problems regarding work safety requirements, e.g. failure to use personal protective equipment, damaged excavation fencing, untidy workplaces or Construction Site, etc. After the Engineer's indication, the Contractor immediately took corrective actions.
In the fourth quarter of 2021, an Accident at Work occurred at the Construction Site - see description in section 6.6.1 of this report.

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.2/1 and 3A.2/2, units responsible for implementation of monitoring measures determined under Appendix 2 to the EMP are as follows: **the Contractor** (**100 measures**: items no. 1, 2, 4-101 under Appendix 2 to the EMP), **the Engineer** (**101 measures**: items no. 1-101 under Appendix 2 to the EMP) and **the Investor** (**3 measures**: items no. 46, 47 and 48 under Appendix 2 to the EMP). In total, the EMP for Contract 3A.2/1 and 3A.2/2 envisages implementation of 101 monitoring measures, of which all measures should be implemented in 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 100 (ok. 100%) monitoring measures, including:
   - 100 (ca. 100%) measures were implemented in the scope required within the reporting period (items no. 1, 2, 4-101 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.

a) Within the reporting period the Engineer was implementing 101 (100 %) monitoring measures, including:
   - 101 (100%) measures were implemented in the scope required within the reporting period (items no. 1-101 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 100 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 did not implement 3 (ca. 3%) monitoring measures assigned to the Investor in the EMP because there was no such need, these measures will be carried out only after the end of the Defects Notification Period (items no. 46, 47 and 48 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.

The supervising measures in the range referring to the EMP were implemented by the Investor at participation of members of the PIU's team listed in chapter 4.3.

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

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

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

6.1 ACTIONS OF THE CONTRACTOR

Within the reporting period the Contractor has been carrying out works within the framework of Contract 3A.2/1 and 3A.2/2, 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.2/1 and 3A.2/2 and related to the environment, local society, health and safety:

- in the third quarter of 2021, the Contractor informed the local community about the commencement of the Works and established contact and conducted talks with the Committee for the construction of Blacharska Street;
- due to a threat of spreading coronavirus infections causing COVID-19 disease, from the fourth 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.2;
- due to the situation regarding Russia's aggression against Ukraine, from the first quarter of 2022 to the first quarter of 2023, the Contractor was providing the Engineer with weekly special reports regarding the impact of the geopolitical situation on the pace of the Works and the completion date and cost.

6.2 ACTIONS OF THE ENGINEER / CONSULTANT

Within the reporting period the Engineer/Consultant was supervising works carried out within the framework of Contract 3A.2/1 and 3A.2/2, 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/Consultant was implementing the following other measures referring to Contract 3A.2/1 and 3A.2/2 and related to the environment, local society, health and safety:

- supporting the staff of the Małopolska Voivode in conducting administrative proceedings related to issuing decisions determining the amount of compensation;
- running an information point for interested residents and people who own real estate in the vicinity of the Contract construction site for the Contract 3A.2;
- due to a threat of spreading coronavirus infections causing COVID-19 disease, from the fourth quarter of 2021 to the first quarter of 2022 the Engineer monitored the situation under Contract 3A.2 in connection with the epidemiological threat and submitted reports to the Investor regarding the above-mentioned threats.

6.3 ACTIONS OF THE INVESTOR

Within the reporting period the Investor was carrying out its activities associated with implementation of Contract 3A.2/1 and 3A.2/2, 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/Consultant.

6.4 OTHER ACTIONS

Not applicable to reporting period.

6.5 EXCEPTIONAL EVENTS, THREATS AND CATASTROPHES

Not applicable to reporting period.

6.6 ACCIDENTS

6.6.1 Accidents with participation of Contractor's employees

In the fourth quarter of 2021, an Accident at Work occurred.

On December 13, 2021 at 1:30 p.m. an employee of a subcontractor of SKANSKA employed as a water and sewage fitter suffered an accident at work. On that day, work was carried out on the construction of a sanitary sewage system, and the excavation was drained using an electric deep-well pump. The pump was placed in a well, and the power cable ran along the fence of the neighboring property, suspended on a mesh with plastic clamps at a height of approx. 30-40 cm. In addition to the mesh fence, the property was also fenced with an electric fence stretched approximately 10 cm above the mesh. The employee approached the fence to make arrangements with the property owner who provided electricity. He remembers talking to the owner and the next moment he regained consciousness in the ambulance. The employee does not remember the moment of electric shock and could not answer the question whether he touched the electric fence. In the ambulance, he was informed by a paramedic and the police that he had been electrocuted. The employee was taken to hospital, from which he was discharged the same day. The employee was on sick leave from December 13, 2021 to December 24, 2012. For this period, he received remuneration in accordance with applicable regulations as a person employed under an employment contract for an indefinite period. He did not suffer any permanent damage to his health and returned to work after his dismissal. The commission for investigating the causes of the accident determined that the cause of the accident was insufficient concentration of attention on the activity being performed. On the day of the accident, the employee had full mental and physical fitness, also had current preventive medical examinations and completed appropriate occupational health and safety training. This employee was equipped with appropriate work clothes and footwear, and on the day of the accident he was properly dressed in the clothes assigned to him.

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

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

6.6.3 Accidents with participation of outsiders

No accidents involving outsiders were recorded within the reporting period.

6.7 SECURING CONDITIONS OF PAYMENT AND WORK FOR THE PERSONNEL

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

6.8 PREVENTING CASES OF SEXUAL HARASSMENT AND MOBBING

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

7 SUMMARY

This report presents a summary on implementation of the measures determined in the Environmental Management Plan (EMP) for Contract 3A.2 *Flood protection in Serafa valley – Malinówka 1 reservoir, Malinówka 2 reservoir (3A.2/1 and 3A.2/2)* 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.2

(i.e. **from September 27, 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 September 27, 2023**).

Within the reporting period the Contractor was carrying out the works in the range given in the Contract 3A.2 (see description in chapter 1). He implemented of 100 mitigation measures determined in the EMP (see: description in chapter 4.1). He monitored of implementation of 100 mitigation measures determined in the EMP (see: description in chapter 5.1), and he participated 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.2, 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 101 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 PIU was implementing measures assigned to it in the range of Contract 3A.2 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 the 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 measures implemented by the Contractor, by the Engineer, and by the Investor, it was identified within the reporting period that:

a) 90 out of 101 mitigation measures listed in Appendix 1 to the EMP were implemented, including:

– issues with implementation were not identified in case of 85 measures;

– issues and / or inconsistencies associated with implementation were identified in case of 5 measures, described in chapter 4.4 (in no case did they cause significant negative impacts on the environment).

b) 11 out of 101 mitigation measures listed in Appendix 1 to the EMP were not implemented, including:

– implementation of 11 measures was not necessary throughout the entire reporting period.

c) 101 out of 101 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.2 *Flood protection in Serafa valley – Malinówka 1 reservoir, Malinówka 2 reservoir (3A.2/1 and 3A.2/2).* State Water Holding Polish Waters, Regional Water Management Authority in Cracow.
2. *Progress Reports* provided by the Contractor for Contract 3A.2 in subsequent months of the reporting period.
3. *Monthly Reports* and *Quarterly Reports on EMP Implementation* for Contract 3A.2, as provided by the Engineer in subsequent months / quarters of the reporting period.

9 LIST OF APPENDICES

1. Check List for implementation of the measures listed in Appendix 1 and 2 to the EMP for Contract 3A.2 (3A.2/1 and 3A.2/2).
2. Photo documentation.