



# FINAL REPORT



**ODRA-VISTULA  
FLOOD MANAGEMENT PROJECT  
CO-FINANCED BY:**

REPUBLIC OF POLAND

WORLD BANK – LOAN NO. 8524-POL

COUNCIL OF EUROPE DEVELOPMENT BANK – LOAN NO. LD  
1866

EUROPEAN UNION COHESION FUND  
NFOŚIGW

**JANUARY 2025**

**FINAL REPORT**  
**ON THE IMPLEMENTATION OF MEASURES SPECIFIED IN THE ENVIRONMENTAL MANAGEMENT**  
**PLAN**  
**FOR CONTRACT 1B.8**

Odra-Vistula Flood Management Project

Subcomponent	1B Flood protection of Middle and Lower Odra River
Contract Task	1B.8 - Flood protection of Krosno Odrzańskie.
Investor / Project Implementation Unit	State Water Holding Polish Waters in Warsaw represented by the Director of the Regional Water Management Authority in Wrocław
Works Contractor	Budimex S.A. ul. Siedmiogrodzka 9 01-204 Warsaw
Contract Engineer	SWECO Polska Sp. z o.o. ul. Franklina Roosevelta 22, 60-829 Poznań

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## INTRODUCTION

The final report on the implementation of measures specified in the Environmental Management Plan describes the status of implementation of mitigation and monitoring measures for Contract 1B.8 throughout the term of the Contract.

The report presents activities and incidents on the construction site and the site's impact with regards to the ESHS issues (environmental, social, health and safety), which took place in the reporting period during the implementation of the Works Contract, in the following arrangement:

- state of implementation of mitigation measures, specified in Annex 1 to the EMP, carried out by individual participants in the investment process; a detailed list of measures is included as Appendix 1 to the Report (Checklist for the implementation of measures listed in Annex 1 to the EMP for Contract 1B.8);
- state of implementation of monitoring measures, specified in Annex 2 to the EMP, carried out by individual participants in the investment process; a detailed list of measures is included as Annex 2 to the EMP Report (Checklist for the implementation of measures listed in Annex 2 to the EMP for Contract 1B.8);
- summary.

## 1. SUMMARY

This document is a report on the implementation of measures specified in the Environmental Management Plan (EMP) for the project: Works Contract 1B.8 *Flood protection of Krosno Odrzańskie* as part of the *Odra-Vistula Flood Management Project* (OVFMP).

The report covers the period of implementation of the activities specified in the Environmental Management Plan, implemented on the key dates of the Contract:

- commencement of Construction Works under the Contract 1B.8 (i.e. January 2021);
- completion of the works considered as essential, resulting from the Time for Completion (i.e. December 29, 2023);
- Defects Notification Period/Guarantee Period, i.e. 60 months from the issue of the Taking-Over Certificate;
- issuing the Performance Certificate on January 15, 2025.

During the reporting period, the Contractor carried out works in the scope covered by the Contract (see the description in Section 2), including implementing the mitigation measures specified in Annex 1 to the EMP, and monitoring of the items specified in Annex 2 to the EMP. In addition, the Contractor participated in other activities related to the environment, local community, health and safety.

Under the Contract 1B.8, the Engineer monitored the Contractor's works related to the implementation of individual measures covered by the Environmental Management Plan. In addition, the Engineer participated in all activities related to the environment, local community, health and safety as required by the provisions of the Contract.

As a result of the measures carried out, it was determined that during the Contract term:

- a) The Contractor implemented 91 out of 96 mitigation measures specified in Annex 1 to the EMP. In the case of 5 measures, there was no necessity to implement them during the reporting period. These include activities related to the implementation of procedures in the event of the detection of mobbing or sexual harassment.
- b) The Contractor continued the implementation of 1 mitigation measure regarding raising awareness in the field of preventing sexual harassment and mobbing during the Defects Reporting Period.
- c) The Contractor implemented 99 out of 99 monitoring measures from Annex 2 to the EMP. No irregularities related to their implementation were found.

## 2. BASIC INFORMATION ABOUT CONTRACT 1B.8

On December 1, 2020, the Investor signed a contract with the Contractor Budimex S.A. for the implementation of construction works under Contract 1B.8 "Flood protection of Krosno Odrzańskie". This Report presents a report on the implementation of activities planned in the EMP for Contract 1B.8 "Flood protection of Krosno Odrzańskie".

Key dates of Contract 1B.8 implementation:

- |    |  |                    |
|----|--|--------------------|
| 1. | Date of signing the 1B.8 contract agreement:     | December 1, 2020;  |
| 2. | Date of handing over the 1B.8 construction site: | January 8, 2021;   |
| 3. | Date of commencement of works:                   | January 25, 2021;  |
| 4. | Works completion date:                           | December 29, 2023; |
| 5. | Defects Notification Period end date:            | December 29, 2024; |

As part of the Contract, a total of 13 facilities were built/rebuilt for flood protection purposes (9 flood embankments and 4 flood relief channels) protecting against flooding or inundation of the areas located within the Krosno Odrzańskie municipality and the Dąbie commune.

I. Construction of new flood embankments with a total length of 5926.3 m:

1. Embankment I at km 0+000 ÷ 1+279 – from the bridge on the left bank of the Odra River, in the course of Ariańska Street in the downstream direction, then along the right bank of the By-pass Channel No. 1 up to the bridge N-2 in Bohaterów Wojska Polskiego Street.
2. Embankment II - 0+000 ÷ 1+387.6– from the bridge on the left bank of the Odra River, in the course of Ariańska Street upstream and then along the western edge of the Połupin Polder, further along the right bank of the By-pass Channel No. 1 to the bridge N-2 in Bohaterów Wojska Polskiego Street.
3. Embankment III - in km 0+000 - 0+454.3 - the embankments route is located on the left bank of By-pass Channel No. 1, from the bridge N-2 in Bohaterów Wojska Polskiego Street upstream of the Channel, further on the eastern edge of the city from the Połupin Polder, and then along

the right bank of the By-pass Channel No. 2 to the bridge N-3 in Bohaterów Wojska Polskiego Street.

4. Embankment IV - in km 0+000 - 0+757 - the route starts on the left bank of the By-pass Channel No. 3, runs down from the bridge N-4 in Bohaterów Wojska Polskiego Street, further along the bank of the left-hand side of the By-pass Channel No. 2, and then runs up the right edge of the new route of the By-pass Channel No. 4 and reaches the road's body - of Bohaterów Wojska Polskiego Street.
5. Embankment V - in km 0+000 - 0+123.9 - the route runs on the left bank of the By-pass Channel No. 2 from the bridge N-3 in Bohaterów Wojska Polskiego Street upstream the Channel, then the west bank of the Połupin Polder, further along the right bank of the By-pass Channel No. 3 - to the bridge N-4 which is also situated in Bohaterów Wojska Polskiego Street.
6. Embankment VI - in km 0+000 - 0+352.7 - starts on the left bank of By-pass Channel No. 3 from bridge N-4 in Bohaterów Wojska Polskiego Street upstream the Channel, then the west bank of the Połupin Polder, further along the right bank of the By-pass Channel No. 4 - to road's body in Bohaterów Wojska Polskiego Street.
7. Embankment VII - in km 0+000 ÷ 1+304.7 – the route runs from the arched river bridge within the crossing of Bohaterów Wojska Polskiego (county road) with the national road No. 29, further along the edge of the embankment of the county road ( Bohaterów Wojska Polskiego Street) to a crossroads with the road to Raduszec, then along the road to Raduszec, then changes direction and runs along the eastern edge of the town towards By-pass Channel No. 4 to change direction again along the left bank of the By-pass Channel No. 4 up the channel and reaches the bridge N-5 located in the course of Bohaterów Wojska Polskiego Street.
8. Embankments VIII - in km 0+000 - 0+190.3 - start of embankments at left bank of By-pass Channel No. 4 from bridge N-5 in Bohaterów Wojska Polskiego Street (national road no. 29), upstream the By-pass Channel No. 4, then changes direction to the south and runs along the western bank the Połupin Polder and changes direction again to the main national road's body - Bohaterów Wojska Polskiego Street.
9. Embankments IX - in km 0+034.5 - 0+076.8 - is located on the western side of the national road No. 32 in Bohaterów Wojska Polskiego Street. It starts on the left bank and from the lower water of the N-2 bridge and runs southwards on plot 232 and reaches the building at the border of plot 231/1.

II. Reconstruction, extension and construction of By-pass Channels with a total length of 2536 m:

1. The By-pass Channel No. 1: Km 0+072 ÷ 1+257 - also called the City Channel - the reconstruction covers its section from the inflow into the Odra river mainly on the left bank below the bridge in Ariańska Street upstream above N-2 bridge to the Połupin Polder.
2. The By-pass Channel No. 2: Km 0+169.3 ÷ 0+551.9 – flows into the valley of the river Odra and through the short connecting Channel 2a, it is also the left-bank tributary to the By-pass Channel No. 1. It starts in the Odra River valley and on the left side of the By-pass Channel No. 1, below N-2 bridge, ends from the side of the Połupin Polder above the N-3 bridge. The reconstruction is carried out on the middle and upper sections of the Channel. Cleaning and maintenance is planned up to km 0+169.3 and rebuilding with reinforcement is planned for the remaining part.

3. By-pass Channel No. 2a: is a short connecting channel between Channel No. 2 and Channel No. 1 of approximately 60m in length. The entire section of the Channel is covered by the reconstruction.
4. The By-pass Channel No. 3: Km 0+000-0+165 - serves as a flood route from the Połupin Polder to N-4 bridge. Below the bridge N-4, it flows into the By-pass Channel No. 2.
5. The By-pass Channel No. 4: Km 0+000-0+792.8 - serves as a flood route from the Połupin Polder to N-5 bridge. Below the bridge N-5, it flows into the By-pass Channel No. 2.

### 3. MITIGATION AND MONITORING MEASURES SPECIFIED IN THE EMP FOR THE CONTRACT 1B.8

#### 3.1. CONDITIONS SPECIFIED IN ANNEX 1 TO THE EMP

To limit the negative impact of the planned Task on the environment, a list of mitigation measures [from 1 to 96] binding the Contractor was set out in Annex 1 to the EMP. These measures were developed on the basis of the conditions contained in applicable administrative decisions regarding environmental protection issued for the Task (including the construction works notification documents), supplemented with additional conditions established at the stage of preparation of the EMP. A selection of characteristic mitigation measures is presented below, broken down into individual environmental components. The complete list of mitigation measures is listed in Annex 1 to the EMP, and grouped into the following categories:

TABLE 1. THEMATIC CATEGORIES OF MEASURES SPECIFIED IN ANNEX 1 TO THE EMP FOR THE CONTRACT 1B.8.

Cat.	Category name	Item position in the table
01	REQUIREMENTS RELATED TO THE LOCATION AND LIMITATION OF THE AREA OF TEMPORARY OCCUPATIONS	1 - 5
02	REQUIREMENTS CONCERNING THE COMMUNICATION SERVICE OF THE TASK IMPLEMENTATION AREA	6 - 7
03	ORGANIZATION OF THE CONSTRUCTION SITE, CONSTRUCTION SITE FACILITIES, WAREHOUSES AND STORAGE YARDS	8 – 15
04	REQUIREMENTS CONCERNING SECURING THE PROTECTED NATURAL RESOURCES	16 - 23
05	RULES FOR LAND RECLAMATION AND HANDLING TOPSOIL	24 - 26
06	REQUIREMENTS FOR FELLING AND PROTECTION OF TREES AND SHRUBS	27 - 32
07	REQUIREMENTS FOR WASTE MANAGEMENT	33 - 41
08	REQUIREMENTS FOR PREVENTING THE SPREAD AND FOR THE ERADICATION OF INVASIVE PLANT SPECIES	42 - 43
09	RULES FOR CONDUCTING WORKS IN WATERCOURSE BEDS	44 - 49

10	REQUIREMENTS FOR PREVENTING ENVIRONMENTAL POLLUTION	50 - 57
11	REQUIREMENTS FOR PROTECTION OF CULTURAL MONUMENTS	58 - 62
12	REQUIREMENTS FOR PROTECTION OF HUMAN HEALTH AND SAFETY	63 - 74
13	REQUIREMENTS FOR THE CONTRACTOR'S PERSONNEL INVOLVED IN THE IMPLEMENTATION OF THE EMP	75 - 81
14	REQUIREMENTS RESULTING FROM A PERMIT REQUIRED BY THE WATER LAW ACT	82 - 85
15	PARTICULAR REQUIREMENTS OF THE ES WORLD BANK POLICIES	86 - 95
16	GUIDELINES ON HOW TO ACT DURING THE STATE OF EPIDEMIC OR EPIDEMIC EMERGENCY DURING WORKS IMPLEMENTATION	96
17	REQUIREMENTS FOR ENVIRONMENTAL MONITORING	97 - 99

The content of individual mitigation measures from Annex 1 to the EMP is cited in *the Checklist*, constituting Appendix No. 1 to this Report.

### 3.2. CONDITIONS SPECIFIED IN ANNEX 2 TO THE EMP

Annex 2 to the EMP sets out a set of monitoring measures obligating the Task Contractor. These measures were developed on the basis of the conditions contained in the construction works notification and applicable administrative decisions issued for the Task, supplemented with additional conditions established at the stage of preparation of the EMP. Monitoring measures listed in Annex 2 to the EMP in items 1-99 cover monitoring of the implementation of mitigation measures listed in Annex 1 to the EMP. Monitoring measures specified in Annex 2 to the EMP are assigned to individual groups of measures in the manner indicated above.

Additionally, in pos. 1–17, 19-28, 30-32, 35, 36, 38-47, 49-60, 62-71, 73, 74, 82-88, 92-99 the requirements for conducting environmental monitoring during the Task implementation are set out. Whereas in items 18, 29, 33, 34, 37, 48, 61, 72, 75-81, 89-91, the obligations in the scope of ongoing checks of compliance with the rules set out in the Contractor's documents, developed for the purpose of the Task implementation, were specified.

### 4. SUPERVISION SYSTEM FOR THE IMPLEMENTATION OF MEASURES SPECIFIED IN THE EMP

Supervision over the implementation of mitigation measures and monitoring measures specified in the EMP for Contract 1B.8 was carried out by Contractor's EMP Coordinator. Information on the scope of the Contractor's activity is presented below. The Contractor regularly, once a month, participated in working meetings held during the implementation of the Contract and devoted to the discussion and control of mitigation and monitoring measures specified in the EMP (item 79 of Annex No. 1 and Annex No. 2 to the EMP).



#### 4.1. CONTRACTOR

The person directly responsible for the implementation of the activities specified in the EMP on behalf of the Contractor was the Site Manager. To provide support to the Site Manager in the scope of the EMP implementation, an EMP Coordinator and an environmental supervision team (hereinafter referred to as the Contractor's Environmental Supervision Team - CEST) were appointed. The team was composed of experts in the field of natural sciences. The CEST included representatives of the following specializations: botanist-phytosociologist (natural habitats and protected plant species), dendrologist (principles of tree care and protection), zoologist-ichthyologist (fish), zoologist-herpetologist (amphibians and reptiles), zoologist-ornithologist (birds), zoologist-terriologist (non-flying mammals), zoologist-chiropterologist (bats), zoologist-entomologist (insects). Experts were involved in the implementation of selected mitigation and monitoring measures specified in the EMP.

The task of the EMP Coordinator was continuous cooperation with the Site Manager, the remaining part of the Contractor's personnel and the Environmental Management Expert in the Engineer's team, as well as conducting regular reporting in the above scope.

In addition, the Contractor ensured the participation of a team of archaeological (if necessary) and sapper supervision experts (during the entire Contract term), to the extent consistent with the requirements of the EMP.

After the end of each month, the EMP Coordinator prepared a report on the implementation of measures specified in the EMP, together with a *Checklist* describing the actual state of implementation of individual EMP conditions in a given month. The report was submitted to the Experts in the Engineer's team, along with relevant appendices (including, among others, applications, opinions issued by the environmental supervision team, etc.).

#### 4.2. ENGINEER

Direct supervision over the implementation of the Environmental Management Plan conditions on behalf of the Engineer's team was performed by Experts, i.e. EMP Coordinator, EMP Inspector, and Greenery Inspector, who also carried out field environmental inspections. All Experts actively cooperated with the Contract Engineer, Supervision Inspectors of other industries and all members of the Engineer's team responsible for the investor's supervision over the implementation of the Task. They stayed in constant contact with the Site Manager and the Contractor's EMP Coordinator, determining the scope of environmental requirements necessary to be met at a given stage of works. Their activities included supervision over the implementation of individual conditions of the EMP, participation in solving current problems and conducting inspections at the site of works. After the end of each reporting period, the Environmental Management Expert verified the environmental documentation prepared by the Contractor, and then prepared their own reports (monthly and quarterly), which were submitted to the Project Implementation Office.

#### 4.3. EMPLOYER/ PROJECT IMPLEMENTATION OFFICE [OVFMP PIO]

Direct supervision over the implementation of the Environmental Management Plan on behalf of the Project Implementation Office (OVFMP PIO) was performed by the Environmental Specialist, who cooperated in this respect with the Head of the PIO, other members of the OVFMP PIO team, and other organizational units of PGW WP RZGW in Wrocław. The environmental specialist and the Head of the

OVFMP PIO kept in constant contact with the environmental management expert in the Engineer's team, while monitoring the implementation of individual conditions of the EMP and actively engaging in solving current problems. After the end of each reporting period (monthly and quarterly), the Environmental Specialist and the Head of the OVFMP PIO verified the current environmental documentation of the Contract. On this basis, quarterly reports were prepared and submitted to the Project Coordination Unit.

#### 4.4. PROJECT COORDINATION UNIT [PCU]

Direct supervision over the implementation of the EMP conditions on behalf of the Project Coordination Unit was performed by the Environmental Management Expert, cooperating in this respect with other members of the PCU team. The expert stayed in constant contact with the Head of the OVFMP PIO and the Environmental Specialist in the PIO team. After the end of each reporting period (quarter), they verified the environmental documentation provided by the OVFMP PIO and prepared contributions to the PCU reports submitted afterwards to the World Bank. The expert took part in regular EMP meetings and Site Meetings. They participated in solving problems with the implementation of mitigation and monitoring measures during the entire period of the Contract implementation on an ongoing basis.

#### 5. STATE OF IMPLEMENTATION OF MITIGATION MEASURES FROM ANNEX 1 TO THE EMP

This section describes the state of implementation of 96 mitigation measures aimed at preventing and limiting the negative impacts of the project on the state of environmental resources, listed in Annex 1 to the EMP for Contract 1B.8. Information on the implementation of these measures is also provided in *the Checklist*, constituting *Appendix No. 1* to this report. The implementation of the measures specified in the EMP began on the date of issue of the instruction to commence the Construction Works – on January 25, 2021, and was carried out until June 30, 2024.

Pursuant to the content of Annex 1 to the EMP for the Contract 1B.8, the Contractor is responsible for the implementation of mitigation measures specified in items 1 to 96. Under the Investment project, there was no necessity to implement 5 measures:

- **measure No. 29 "Conditions substantiating the felling of trees populated by valuable beetle species".**  
The Environmental Supervision Team did not find any trees intended for felling, which would constitute a habitat for valuable beetle species.
- **measure No. 30 "Rules of conduct for felling trees inhabited by bat species".**  
No trees intended for felling and populated by bat species were found by the Environmental Supervision Team.
- **measure No. 83 "Flood protection".**  
No instances of flood risk were recorded during the implementation of works.
- **measure No. 90 "Reporting sexual harassment and mobbing cases".**

No cases of mobbing or sexual harassment were recorded, so there was no need to implement the provisions of the subject item.

- **measure No. 93 "Conditions of employing juvenile employees".**

No cases of employment of juvenile employees were recorded during the term of the Contract. Therefore, there were no circumstances requiring the implementation of the conditions specified for the employment of this group of workforce members.

## 5.1. ACTIVITIES OF THE CONTRACTOR

In accordance with the information submitted in individual monthly reports of the Contractor, the activities carried out by the Contractor, contained in Annex 1, i.e. the mitigation measures, according to the quantitative list below, were as follows.

TABLE 2. QUANTITATIVE LIST OF MITIGATION MEASURES IMPLEMENTED BY THE CONTRACTOR IN INDIVIDUAL MONTHS DURING THE IMPLEMENTATION OF THE CONTRACT

Reporting period	Implemented measures [I]	Partially implemented measures [PI]	Measures not carried out due to the lack of necessity [N/NN]	Measures not implemented [N/N]	Not applicable [NA]	Measures completed [N/C]
01-02.2021	44	1	51	0	0	0
03.2021	56	1	39	0	0	0
04.2021	65	2	29	0	0	0
05.2021	34	1	31	0	0	0
06.2021	72	1	23	0	0	0
07.2021	72	1	20	0	0	3
08.2021	66	3	24	0	0	3
09.2021	68	5	20	0	0	3
10.2021	72	2	18	0	0	4
11.2021	71	1	20	0	0	4
12.2021	70	0	22	0	0	4
01.2022	69	0	23	0	0	4
02.2022	69	1	22	0	0	4
03.2022	69	1	22	0	0	4
04.2022	64	0	28	0	0	4
05.2022	68	1	23	0	0	4

06.2022	71	1	20	0	0	4
07.2022	63	4	25	0	0	4
08.2022	66	2	24	0	0	4
09.2022	67	2	23	0	0	4
10.2022	65	3	24	0	0	4
11.2022	64	4	20	0	0	4
12.2022	64	1	27	0	0	4
01.2023	64	3	25	0	0	4
02.2023	65	2	25	0	0	4
03.2023	63	5	24	0	0	4
04.2023	62	6	24	0	0	4
05.2023	67	4	20	0	0	5
06.2023	61	6	24	0	0	5
07.2023	58	11	22	0	0	5
08.2023	59	9	23	0	0	5
09.2023	65	6	20	0	0	5
10.2023	59	8	24	0	0	5
11.2023	61	5	25	0	0	5
12.2023	63	0	28	0	0	5
01.2024	52	1	26	0	0	17
02.2024	35	1	11	0	0	49
03.2024	34	1	11	0	0	50
04.2024	34	1	11	0	0	50
05.2024	34	1	11	0	0	50
06.2024	23	1	6	0	5	61

Mitigation measures were carried out by the Contractor with the participation of specialists from the Contractor's environmental team. In the reporting period, this team consisted of the following members: EMP Coordinator, botanist, dendrologist, ichthyologist, herpetologist, teriologist, chiropterologist, entomologist and ornithologist. The Contractor's resources also included: sapper and archaeological supervision teams. Archaeological and sapper supervision was provided for the duration of the Contract.

## 5.2. ACTIVITIES OF THE ENGINEER

According to the information presented in the monthly and quarterly reports on the implementation of the measures specified in the EMP, during the reporting period, the Engineer implemented 1 (1.04%) mitigation measure (in cooperation with the Contractor and the Employer - item No. 80 regarding monthly EMP meetings).

## 5.3. ACTIVITIES OF THE EMPLOYER

According to the information presented in the monthly and quarterly reports on the implementation of measures specified in the EMP, in the reporting period, the Employer implemented 1 (1.04%) mitigation measure (in cooperation with the Contractor and the Engineer - item No. 80 regarding monthly EMP meetings).

## 5.4. ISSUES WITH REGARD TO THE IMPLEMENTATION OF MITIGATION MEASURES FROM ANNEX 1 TO THE EMP

According to information presented in the monthly and quarterly reports on the implementation of measures specified in the EMP, during the reporting period, the following problems and/or irregularities related to the implementation of mitigation measures from Annex 1 to the EMP for the Contract 1B.8 (in the order consistent with the item numbers in Annex 1 to the EMP) were found.

Individual items from Annex 1 to the EMP, in which irregularities/deficiencies were found by the Contract Engineer, are listed below:

1. Measures classified as not implemented N/N [measures not implemented are presented in the order assigned to individual EMP items]:
  - No measures classified as not implemented N/N
2. Measures partially implemented - PI [measures partially implemented are presented in the order assigned to individual EMP items]:
  - **measure No. 1 (August 2021, June – August 2022) – "Limitation of land occupation and land surface transformation".**

A minor deficiency in the implementation of the subject item was found. The Contractor was obliged to limit land occupation as well as land surface transformation during works to the necessary minimum. In the implementation of the measure, deficiencies were found due to the fact that in August 2021, in connection with the works, there was an interference in the habitat in the area of the Embankment No. VII, and from June to August 2022, there was an interference in the part of the plot that directly borders the construction site. The area has been restored to its original condition. There was no negative impact on the environment.

- **measures Nos. 3, 4 (August – September 2021) – "Preservation of natural assets beyond the places required to be occupied for the purpose of Task execution", "Reducing the area of damage within natural habitats and habitats of species".**

Minor deficiencies in the implementation of the subject item regarding the preservation of protected natural habitats and the limitation of their area of damage were found. In August 2021, the Contractor insufficiently secured the natural habitat in the area of the embankments Nos. II and III, while in September 2021 it did not fully mark the habitat. According to the memo of the EMP coordinator attached to the Report for September, the works carried out in the given location did not affect the habitat. No negative impact on the environment was found.

- **measure No. 5 (August 2021) – "Conditions for location of technological routes, back-up facilities, sites".**

Minor deficiencies in the implementation of the item including the detailed location of site facilities, roads, and storage yards were found. In August 2021, the Contractor did not make an agreement regarding the locations for storing sludge by the By-pass Channel No. 3/Embankment No. III. The deficiency was corrected by designating storage yards, allowing for the preservation of natural values. There was no negative impact on the environment.

- **measure No. 7 (January – February 2021, January – June 2024) "Conditions for use of access roads to the Task implementation area along with their surroundings".**

A minor deficiency in the implementation of the subject item was found. In accordance with the requirements of the Contract, the Contractor was obliged to develop a Temporary Road Traffic Organization Design and obtain approvals. In the period from January to February 2021, arrangements between the Contractor and the road administrator were underway. Until the final acceptance of the document by the Engineer, the item was classified as partially implemented.

**Measure No. 9 (July 2021, July – August 2023, October 2023) "Repair of possible damages to fencing of work implementation areas".**

A minor deficiency in the implementation of the subject item regarding the repair of possible damages to fencing of work implementation areas was found. In the months specified above, the inspection showed discontinuities and damage to the fence. After being given notice by the Supervision, the Contractor remedied the deficiencies.

- **Measure No. 11 (September 2021, February – March 2022, May 2022, March – April 2023, June – October 2023); Measure No. 12 (April 2021, August – September 2022, March – April 2023, June – October 2023); Measure No. 14 (March – April 2021, April – November 2023) "Organization of the construction site, construction site facilities, warehouses and storage yards"**

Minor deficiencies in the implementation of the above items were found due to the insufficient supply of storage yards with sorbent and the failure to properly secure the site facilities against the spread of contaminants. Stations equipped with sorbent were located in such a way as to enable quick liquidation of the effects of possible leakage of fuel and petroleum derivatives. After notification, the Contractor provided sorbent for the construction site facilities, technological roads and storage yards on an ongoing basis, as well as secured machinery parking locations. There was no negative impact on the environment.

- **Measure No. 17 (August – September 2021) "Marking the boundaries of natural habitats"**

A minor deficiency in the implementation of the subject item regarding the marking of the boundaries of natural habitats was found. Contractor marked the area before the commencement of works. From August to September 2021, it was necessary to improve the protection of the habitat in the vicinity of Embankments II and III. Marking was carried out in accordance with the recommendations of the environmental supervision expert.

- **Measure No. 24 (August – November 2021) "Removal and protection of topsoil before commencing works"**

A minor deficiency in the implementation of the subject item was found. Before commencing the works, the Contractor was obliged to remove and secure the topsoil layer. The location of topsoil storage was agreed with the environmental supervision. In the implementation of the measure, in the area of the Embankments No. II and III, deficiencies were found regarding the storage of topsoil piles. Bearing in mind that the works were carried out with the consent and under the supervision of the Environmental Supervision Team, there was no negative impact on the environment.

- **Measure No. 27 (July 2022) "Conditions and permitted dates for felling trees and shrubs"**

Minor deficiencies in the implementation of the subject item were found in connection with the exposure of the root mass of a tree. The environmental supervision did not find the presence of nests. In accordance with the decision of LWKZ, the Contractor removed the tree.

- **Measure No. 31 (October 2021, July 2022 – January 2023, March – November 2023); Measure No. 32 (September 2021, September – November 2022) "Requirements for felling and protection of trees and shrubs"**

Minor deficiencies in the implementation of the subject items related to tree damage were found. During the implementation of the works, the covers around the shrubs and trees were damaged. The Contractor proceeded with repairs of the covers, damage to the branches on an ongoing basis and took care not to store the materials in places not intended for this purpose. There was no negative impact on the environment.

- **Measure No. 33 ( May – June 2021 ) "Development of a Waste Management Plan"**

Minor deficiencies in the implementation of the subject item were found, however, the allocation of the PI status was not related to a significant negligence of the Contractor. The Contractor carried out activities related to the development of the Waste Management Plan. Until the final acceptance of the document by the Engineer, the item was classified as partially implemented.

- **Measure No. 35 (July 2021, October 2022 – November 2023) "Principles of waste management"**

A minor deficiency in the implementation of the subject item was found. Waste generated during the implementation of the works should be stored appropriately and protected against being released into the environment. During the works, the Contractor occasionally collected waste in places not intended for this purpose. The removal of deficiencies was carried out on an ongoing basis under the supervision of the Environmental Supervision Team. There was no negative impact on the environment.

- **Measure No. 39 (January 2023) "Prevention of illegal dumps"**

Minor deficiencies in the implementation of the subject item regarding the creation of illegal landfills were found. The Contractor was obliged to secure the investment area against the emergence of such trash sites. In January 2023, waste accumulation outside the designated areas was noticed. In order to liquidate it, the Contractor marked the construction site with signs informing about the prohibition of entry for third parties, as well as carried out regular inspections of the cleanliness of the area together with environmental and health and safety supervision.



- **Measure No. 42 (July 2023); Measure No. 43 (July 2022, July 2023) "Requirements for preventing the spread and for the eradication of invasive plant species"**

Minor deficiencies in the implementation of the subject items was found. The Contractor is obliged to prevent the spread of sites of invasive plant species. In July 2023, specimens of Manitoba maple, a knotweed habitat, and the presence of red ash were found during the inspection. In accordance with the recommendations of the environmental supervision and the expert phytosociologist, the Contractor removed and disposed of the invasive species.

- **Measure No. 48 (November 2022) "Protection of ichthyofauna - evaluation of the effectiveness of measures"**

Minor deficiencies in the implementation of the item covering the protection of ichthyofauna were found. The Contractor did not ensure the presence of an ichthyologist expert during the works. Based on the data provided by the Contractor, the Environmental Supervision Team did not find that the suspension limits were exceeded, so the works did not pose a threat to ichthyofauna.

- **Measure No. 50 (February 2023, July 2023, November 2023) "Limiting dusting from means of transport"**

A minor deficiency in the implementation of the subject item regarding the reduction of dusting during construction works was found. In July 2023, the Supervision drew attention to the insufficient frequency of surface spraying in the summer months, and in February and November 2023 to the inaccurate pre-treatment of technological routes. The Contractor systematically cleaned the vehicle wheels before entering the public roads and cleaned the surfaces of the internal technological roads. Bearing in mind that the works were carried out with the consent of the Environmental Supervision Team, no negative impact on the environment was noted.

- **Measure No. 54 (June – August 2023, October 2023) "Prevention and measures related to the penetration of pollutants into the soil and water environment"**

A minor deficiency in the use of sorbents was found (see measures 11, 12, 14 "Organization of the construction site, construction site facilities, warehouses and storage yards"). After notification, the Contractor provided sorbent for the construction site facilities, technological roads and storage yards on an ongoing basis, as well as secured machinery parking locations. Trainings for construction workers on the Spill Procedure were also conducted.

- **Measure No. 64 (March – November 2023) "Appropriate storage of building materials"**

A minor deficiency in the storage of materials was found. The Contractor stored the material in the tree crown projection area. This deficiency has been corrected, as well as training for employees in the field of correct material storage that does not threaten the safety of property, the environment, and people was conducted. There was no negative impact on the environment.

The remaining measures were carried out correctly, or there was no need to carry them out.

## 6. STATE OF IMPLEMENTATION OF MONITORING MEASURES FROM ANNEX 2 TO THE EMP

In accordance with the content of Annex 2 to the EMP for the Contract 1B.8, the entities responsible for the implementation of the monitoring measures listed in Annex 2 to the EMP are: **the Contractor** (99 measures: items 1-99 in Annex 2 to the EMP).



In total, the EMP for the Contract 1B.8 provides for the implementation of 99 monitoring measures, of which all measures were implemented in the reporting period.

### 6.1. ACTIVITIES OF THE CONTRACTOR

During the reporting period, the Contractor carried out measures related to monitoring the implementation of mitigation measures, described in Annex 2 to the EMP. Monitoring was carried out by the following:

- verification of the requirements specified in the EMP for the current stage of works;
- verification of the Contractor's documents regarding the implementation of the EMP conditions;
- ongoing inspections in the work area;
- measures indicated in Annex 2 to the EMP;
- ongoing arrangements with the Contractor's representatives.

The Contractor carried out 99 (100%) monitoring measures in the reporting period. The Engineer did not find any failure to implement the monitoring measures entrusted to the Contractor.

Monitoring measures were carried out by the Contractor with the participation of specialists from the Contractor's environmental team, including the EMP Coordinator, the OHS Coordinator, the sapper and archaeological supervision teams.

### 6.2. ACTIVITIES OF THE ENGINEER

During the reporting period, the Engineer monitored the implementation of mitigation measures, in accordance with the provisions of Annex 2 to the Environmental Management Plan (EMP). Monitoring was carried out by:

- verification of the requirements specified in the EMP for the current stage of works,
- analysis of the Contractor's documentation regarding the implementation of the conditions arising from the EMP,
- regular field inspections in the area of works,
- ongoing arrangements with the representatives of the Contractor and the Investor.

In the reporting period, the Engineer carried out 99 monitoring measures, which equals 100% of the planned measures. Monitoring works were carried out by the EMP Coordinator, EMP Supervision Inspector, and Greenery Inspector of the Engineer's team, who cooperated in this respect with other members of the Engineer's team.

### 6.3. ISSUES WITH REGARD TO IMPLEMENTATION OF MONITORING MEASURES FROM ANNEX 2 TO THE EMP

According to the information presented in the monthly reports on the implementation of measures specified in the EMP, there were no problems with the implementation of the monitoring measures described in Annex 2 to the EMP for Contract 1B.8 in the reporting period.

## 7. OTHER ACTIVITIES AND INCIDENTS CONCERNING ENVIRONMENT, LOCAL COMMUNITY, HEALTH AND SAFETY

During the implementation of the tasks, the Contractor complied comprehensively with the requirements in the field of environmental protection, occupational health and safety (OHS), in accordance with national regulations. All activities were conducted in accordance with the conditions of the Contract - no violations of environmental protection and health and safety regulations were noted.

There have also been no complaints regarding employment rights, discrimination, or inappropriate behavior, including sexual harassment or mobbing. During the implementation of the Contract, several PAPs' complaints were received, regarding the potential damage to buildings located in the vicinity of the works carried out. The complaints were forwarded to the Contractor's insurer and processed in accordance with the provisions of the LA&RAP.

During the term of the Contract, there were two deaths at the construction site (bystander and subcontractor's employee). In both cases, immediate action was taken in accordance with the applicable procedures, as a result of which two Special Reports were developed, approved by the World Bank. The Contractor has implemented additional preventive measures aimed at preventing similar situations from happening in the future.

### 7.1. EXTRAORDINARY EVENTS, THREATS AND CATASTROPHES

The Contractor undertook to secure the construction site in the event of a flood risk. The works were carried out only during low water levels in order to minimize the risk to the life and health of the Contractor's and Subcontractors' personnel. To ensure safety at the construction site, the Contractor also provided sapper supervision, to minimize the risk related to the possibility of encountering dangerous objects of military origin, such as unexploded ordnance. During the implementation of the Investment, the following situations were noted, which were classified as extraordinary events, threats or catastrophes:

- **Incidents related to unexploded ordnance.**
  - On June 28, 2022, during the execution of test excavations in the By-pass Channel No. 2, and on August 1, 2022, during the preparatory works for driving sheet piling in the By-pass Channel No. 3, unexploded ordnance was found. The sapper supervision conducted a reconnaissance and instructed the Site Manager to notify the Police. The construction works were immediately interrupted, and the place of the incident was fenced off and properly marked. Police secured the area near the unexploded ordnance. The sapper patrol retrieved the unexploded ordnance, removed it from the construction site and took care of its disposal. After the end of the sapper operations, a reconnaissance of the area was carried out, which did not show the presence of other dangerous explosives.
- **Finding corpse at the Construction Site.**
  - On January 2, 2023, a man's corpse was found on the Construction Site. In the course of investigation, it was confirmed that the death was not related to the implemented Investment. In connection with the incident, a separate Special Report was developed and

submitted to the World Bank, containing detailed information on the incident, actions taken, and preventive measures implemented.

– **Archaeological findings**

- On June 23, 2021, a group of people representing the local organization "Stowarzyszenie 515", during a tour of the work area within the Old Odra riverbed, came across a monument that was identified as a chainmail garment. The discovery was reported to the Lubuskie Voivodeship Conservator of Monuments (LWKZ) in Zielona Góra and to the archaeological supervision team. The works within the site were suspended, and archaeological research consisting in a detailed reconnaissance of the area was carried out in the indicated area. As a result of consultations with LWKZ, the Director of the Archaeology Museum of the Central Odra Basin in Świdnica and the archaeological research manager, it was decided to transfer the artifact to the aforementioned museum.
- During the supervision of earthworks on 05-11 July 2021, several wooden elements were discovered in the old Odra riverbed, which were identified as fragments of the historical bridge structure (By-pass Channel No. 1 – approx. at km 0+900). Therefore, the works within the By-pass Channel No. 1 were suspended until the completion of the surveys commissioned by LWKZ. As a result of underwater surveys, the route of a wooden bridge from the 16th century located at approx. km 0+950 was confirmed, and no wooden structures were found on the remaining sections.

– **Ecological disaster on the Odra river**

- During the implementation of the Contract, an ecological disaster occurred, which was related to the contamination of the Odra River. Beginning on August 10, 2022, dead fish floating with the current of the Odra River were seen near the construction site near Krosno Odrzańskie. This phenomenon concerned all common fish species present in the Odra River and was widely described in the notifications of the Regional Water Management Authority in Wrocław, as well as in the alerts of the Government Security Centre of August 12, 2022. Due to information about a potential threat to human health and life, on August 12, 2022, the Contractor suspended any works carried out in the bed of the By-pass Channel No. I on the construction site adjacent to the Odra River. This decision was in accordance with the principles of environmental protection and safety, and the Contractor remained in constant contact with the competent authorities in order to monitor the situation.

## 7.2. ACCIDENTS

During the implementation of the investment, an accident on the Construction Site was recorded:

- On May 16, 2023, on the Construction Site, an incident resulting in the death of one of the employees of the subcontractor company took place. The employee was performing works on a vessel deepening the Odra Canal. During the execution of this work, he fell from the platform into the water, which led to his death in a hospital.

According to the information provided by the Experts, the injured employee was properly introduced to his duties at the construction site. He was familiar with the implemented Health and

Safety Plan (BIOZ), had undergone all the required training related to the work carried out, and held valid medical examination certificates. In connection with the incident, a separate Special Report was developed and submitted to the World Bank, containing detailed information on the incident, actions taken, and preventive measures implemented.

As part of the implementation of the Investment, the Contractor, in accordance with the provisions of the BIOZ plan, implemented and ensured the operation of the first aid system at the construction site. First aid stations were appropriately equipped and designated to allow quick assistance to persons who suffered an injury as a result of accidents at the construction site. This system operated throughout the entire Contract implementation period, providing support in emergency situations.

### **7.3. ENSURING PROPER WAGE AND WORKING CONDITIONS FOR PERSONNEL**

The Contractor fully complied with the labor law provisions in force in Poland, including all provisions of the Labor Code, ensuring appropriate wage and working conditions for all personnel. Under the Contract, an equal remuneration was guaranteed for employees performing the same work, regardless of their gender, sexual orientation or age. The Contractor also ensured that all persons employed under the Contract were protected against any form of discrimination or harassment, including against their gender, sexual orientation or age. Particular attention was paid to creating a working environment based on the principles of equality and respect for the dignity of each employee.

The Contractor did not employ juveniles under the Contract. All employed persons met the age requirements specified in the labor law.

During the Covid-19 pandemic, the Contractor took measures to protect the health and safety of employees and other persons at the Construction Site. The necessary precautions, including personal protective equipment and hygiene procedures, have been provided in accordance with the applicable guidelines.

### **7.4. PREVENTION OF SEXUAL HARASSMENT AND MOBBING**

In accordance with the requirements of the Contract, the Contractor conducted periodic trainings on counteracting sexual harassment and mobbing throughout the entire duration of the Investment. No cases of mobbing or sexual harassment were reported, and therefore no reporting or remedial measures were taken against such cases.

## **8. LIST OF APPENDICES**

Appendix 1 – Checklist on the implementation of measures listed in Annex 1 and Annex 2 to the EMP for Contract 1B.8

Appendix 2 – Photographic documentation.