

**ANNEX TO ENVIRONMENTAL
MANAGEMENT PLAN**
for
**Odra River Basin Flood Protection Project
Component B
Modernization of Wroclaw Floodway System**

WORKS CONTRACT
*Odra – Widawa Weir – to the railway bridge
(Krzywoustego Street)*
B3-1
resulting from Annex no. 2 to Contract B3-1

**ENVIRONMENTAL CATEGORY A - according to
OP 4.01 WB**

ODRA RIVER BASIN FLOOD PROTECTION PROJECT

Co-financed by:

World Bank, Loan No. 7436-POL

Council of Europe Development Bank, Framework Loan Agreement F/P 1535 (2005)

Grant from the EU Cohesion Fund

State budget

Wroclaw – July 2017

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ANNEX TO ENVIRONMENTAL MANAGEMENT PLAN

Component B

Modernization of Wrocław Floodway System

WORKS CONTRACT B3-1

Annex No. 2 to WORKS CONTRACT B3-1

Section: Odra – Widawa Weir – to the railway bridge (Krzywoustego Street)

The Annex to the Environmental Management Plan is prepared for Works Contract B3-1 in connection with Annex no. 2 to the Contract, which is broadening the scope of works to include the renovation of the Kietczówek Weir and the sealing of the left-bank flood protection embankment of the Widawa River "Przerowa L".

The Annex to the EMP is prepared by the Technical Support Consultant, i.e. the Joint Venture of SWECO Consulting Sp. z o.o./ SWECO Nederland B.V./ Artelia Ville & Transport SAS/ Artelia Sp. z o.o./ Ekocentrum Sp. z o.o. The Annex concerns the activities related to the modernization of Wrocław Floodway System in scope of flood relief through the Widawa Transfer (Component B3).

Prepared by:

Joint Venture of SWECO Consulting Sp. z o.o./ SWECO Nederland B.V./ Artelia Ville & Transport SAS/ Artelia Sp. z o.o./ Ekocentrum Sp. z o.o.

Project Implementation Unit of Odra River Flood Protection Project in Lower Silesia Board of Amelioration and Water Structures in Wrocław

Wrocław – July 2017

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1 INTRODUCTION

The Works Contract B3-1 was signed with the Contractor on 23 September 2014. The EMP, which obliges the Contractor to implement the mitigating, monitoring and compensating measures defined therein, is also part of the Contract. Contract B3-1 is still being implemented, until all the necessary works and measures are completed, including those resulting from the EMP. Therefore, the EMP for the Contract B3-1 is valid in taking into account of this Annex. Supervision of its implementation perform the Technical Support Consultant / Engineer the Joint Venture of SWECO Consulting Sp. z o.o./ SWECO Nederland B.V./ Artelia Ville & Transport SAS/ Artelia Sp. z o.o./ Ekocentrum Sp. z o.o.

DZMiUW found it necessary in 2017 to urgently perform additional works consisting of the sealing the left-bank flood protection embankment of the Widawa River "Przerowa L" and of the renovation of the Kielczówek weir. The left-bank embankment of the Widawa River at km 27+200 to 29+100 – "Przerowa L" is running along the Przerowa watercourse on its left side. The embankment plays an important role in flow control in this region. Seepages from the outer-embankment zone were seen during the flow of flood water, which may threaten the structure's safety, and, consequently, destroy it, resulting in an increased flood hazard for the local developed areas. The construction of an anti-filtering membrane will protect the embankment against being potentially washed away during flood water flows. The technical condition of the Kielczówek Weir (Widawa River km 25+635) is poor and does not allow for the structure's correct functioning. Its gates cannot be operated in particular and, for example, the weir cannot be fully opened. If flood flows occur, this makes it impossible to control the runoff of flood water so that local flooding is avoided.

Description of works

The works included in the Annex to the EMP, for the Works Contract B3-1, include the renovation of two structures making part of the WFS flood protection system:

- 1) Kielczówek weir located on Widawa River, the following will be done as part of the works:
 - renovation of the weir's concrete structure, including renovation of abutments, pillars and weir, and a footbridge with stairs;
 - renovation of a steel structure of the main closures of the weir with hoisting mechanisms;
 - renovation of the stilling basin and the downstream apron, situated downstream of the structure;
 - demolition works of the existing bank reinforcements;

- execution of slope revetments in the near-the-weir zone from the headwater and tailwater side;
 - the necessary felling and grubbing of trees and bushes together with grubbing, clearing and tidying up the area of the facility;
- 2) left-bank flood embankment of the Widawa River "Przerowa L", the following will be done as part of the works:
- the flood embankment body and the subgrade are planned to be sealed with a vertical anti-filtering membrane,
 - the anti-filtering membrane is designed as suspended, which means that the bottom of the membrane will not reach a layer of non-permeable soils.

Location

The existing structure – the Kielczówek flap weir, managed by the Lower Silesia Board of Amelioration and Water Structures in Wrocław – is situated on the Widawa River at km 25+635 of the river course, 30 m downstream of the inlet to the left-side course Młynówka Kielczowska. The implementation area of the weir renovation is within a geodesic precinct of Śliwice, Długołęka Commune in Wrocław District, in Lower Silesia Province, in the neighborhood of the city limits of Wrocław.

The existing flood embankment "Przerowa L" is situated along the Przerowa watercourse and is a left-bank embankment of the Widawa River (km 27+200 – 29+000). The implementation area of the works within the section of the embankment is situated in the geodesic precinct of: Dobrzykowice, Krzyków and Nadolice Wielkie, Czernica Commune in Wrocław District, in Lower Silesia Province, approx. 2.5 km east of the city limits of Wrocław.

The location of the structures forming part of the Annex No. 2 to the Contract B3-1 is presented in detail in Appendix No. 1 to the Annex to EMP.

The nature of such works is the same as the basic scope of the works covered by Contract B3-1. The undertaken analysis of legal and environmental conditions has revealed that an environmental impact report does not have to be prepared, either, and that an additional decision on the investment's environmental impact does not have to be obtained. All the provisions of the EMP for Contract 3-1 are valid; the relevant mitigating, monitoring and compensating measures included in the Environmental Management Plan for the Contract, prepared in December 2012, are continued. The mitigating and monitoring measures necessary for implementation under the renovation of the Kielczówek Weir and under the sealing of the left-side embankment of the Widawa River "Przerowa L", are listed, as relevant, in the catalogue of the measures described in the EMP for Contract B3-1.

2 ENVIRONMENTAL CONDITIONS OF IMPLEMENTATION

The works covering the Kiełczówek weir and flood protection embankment "Przerowa L" encompass only and exclusively the renovation of the existing building structures, as a result of which no procedure is required of presenting the intention of conducting actions to RDOŚ. For this reason, as well as due to the lack of a risk of occurrence of substantial adverse impacts on Natura 2000 sites, no legal basis exists for initiating an environmental impact assessment procedure¹. In the period since preparing an EMP for Contract B3-1 until preparing an Annex for this EMP, some of legal acts on environmental protection have been amended. For the Contract and for the EMP, however, the Contractor is required to apply measures consistent with the current legal conditions. The current list of legal acts is presented in App. 3 to the Annex to the EMP for Contract B3-1.

According to the results of a natural inventory made in 2016 and 2017 in the place where renovation works are carried out, no protected species of plants, fungi and animals exist, the destruction of which would require to obtain relevant permits for performing prohibited activities in relation to wild species (pursuant to Article 51(1), Article 52(1) and Article 56(1) of the Nature Protection Act of 16 April 2004). In case the current natural situation changes in the place of performing works (the occurrence of species of plants, fungi or animals under protection), the Contractor is obliged to obtain relevant administrative decisions.

The Widawa valley section along which the renovated structures are situated, is located within the limits of two surface water bodies (JCWP): Widawa from Oleśnica to Dobra, code PLRW60001913679 and Kanał Graniczny, code PLRW600023136769. The works, due to the lack of impact on the current condition of water and its potential improvement in the future, do not cause hazards of failure to reach the established environmental goals for the JCWP.

In the direct area of works, 2 types of natural habitats occur, as listed in Appendix I of the Habitat Directive²:

- Alluvial meadows of river valleys (*Cnidion dubii*) 6440;
- Willow-poplar-alder-ash forests (*Salicetum albo-fragilis*, *Populetum albae*, *Alnenion glutinoso-incanae*, *Cardamino-Alnetum glutinosae*) 91E0.

¹ In accordance with the Regulation of the Council of Ministers dated 9 November 2010 on investments that may have considerable impact on environment (consolidated text, Journal of Laws no. 2016, item 71), the Act of 3 October 2008 on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments (consolidated text, Journal of Laws of 2017, no. 0 item 1405).

² The Directive of the Council no. 92/43/EEC of 21st May 1992 on conservation of natural habitats as well as wild fauna and flora

The works do not cause interference to the surrounding areas of natural habitats. The necessary felling of trees and bushes relates to single trees and bushes in the adjacency of the Kielczówek weir, which do not form patches of riparian forests. In the area of the investment implementation and its direct surrounding no protected plant and fungi species have been confirmed.

29 species of protected animals were found altogether in the surrounding of the works performance area. The objects are not directly significant, however, as breeding or resting sites of such species. The Widawa River plays an important function as a regional ecological corridor. The performance of works causes only small impacts at the stage of works performance (startling and disturbing of animals). The impact will disappear once renovation works are finished.

A Natura 2000 site, Grędzińskie Forests PLH020081, exists in the neighborhood of the works implementation area. The Kielczówek Weir is located within approx. 50 m from the limits of the Natura 2000 site, the "Przerowa L" embankment adjoins the Natura 2000 site along approx. 1 km of its length (App. 2 to the Annex to the EMP for Contract B3-1). For the both structures, works are not associated with land occupancy within the Natura 2000 site, they do not change the character of the area or ecological relations within its area, either. Mitigating measures (I.2.1.5, I.2.1.27) have been modified to secure the areas within the Natura 2000 site, by indicating this area.

During the performance of works, the Contractor is obliged to conduct appropriate material and waste and ensure adherence to OHS rules and ensure safety and health protection of people (the obligations are given in chap. 6.3 of the EMP of Works Contract B3-1).

Acoustic impacts related to weir renovation will be small and resulting most of all from the traffic of building site service vehicles and machinery. Works performed within the Annex No. 2 to Contract B3-1 shall be located outside of the areas of cultural assets and monuments legally protected by an entry to the register of monuments and/or commune register of monuments. The nearest such facilities are located within approx. 1 km from the works performance places (measures connected with protection of such facilities are included also in chap. 6.3 of the EMP for Contract for works B3-1, measures are also included connected with protection of archaeological values).

After the completion of works, the area will be ordered, and places of temporary occupancy will be reclaimed - covered with humus layer and sown with grass. The renovated structures will supplement the existing flood protection system; thus, they do not generate new, lasting, adverse impacts on the environment.

As regards the protection of tangible assets, the execution of the Contract will improve flood safety to the Widawa valley, Czernica Commune and Długoleka Commune.

3 MITIGATING AND MONITORING MEASURES – CORRECTING AND SUPPLEMENTING THE MEASURES

This Annex to the EMP for Contract B3-1 only details out requirements for the Contractor for performance of works for the structures introduced to Contract B3-1 with Annex no. 2, i.e. the Kielczówek Weir and embankment "Przerowa L", as the measures specific to the character and location of such works. For the existing works resulting from the original content of Contract B3-1, the requirements resulting from the content of the EMP (and its annexes) remain unchanged.

It was found - considering the scope of the expected environmental impacts resulting from the scope and character of works (renovation works on the existing structures) - that, for sealing the left-bank flood embankment of the Widawa River "Przerowa L" and for renovating the Kielczówek Weir, it is not necessary to implement the measures listed in the following EMP items (appendix no. 1 and appendix no. 2) for Works Contract B3-1 (numbers acc. to the column "Mitigation measures" in appendix no. 1 to the EMP and acc. to the column "Monitoring subject" in Appendix no. 2 to the EMP): I.2.1.7, I.2.1.14, I.2.1.18, I.2.1.19, I.2.1.28÷I.2.1.32, I.2.1.46, I.2.1.47, I.2.1.54÷I.2.1.58.

Due to the specified location of the structures and character of the designed works, the description of the following mitigating measures from the EMP for Contract B3-1, which is valid in taking into account of this Annex, has to be adapted (numbers acc. to the column "Mitigation measures" in appendix no. 1 to the EMP and acc. to the column "Monitoring subject" in Appendix no. 2 to the EMP; a new, modified content is given after the hyphen for the description of mitigating and monitoring measures for the sealing of the left-bank flood embankment of the Widawa River "Przerowa L" and Kielczówek Weir renovation):

- I.2.1.5 - The stage of conducting construction works must be preceded by preliminary works involving preparing the area for works. i.e. preparing the places for storing building materials, for site facilities, etc. and allocating and preparing (and consulting with the road administrators) of traffic routes for machines and vehicles. The location of temporary occupation sites such as: technological roads, sites, building site back-up facilities, construction material deposits, parking, etc.) must be situated outside the areas of a natural value indicated by Contractor's environmental team, including outside the limits of the Natura 2000 site Grędzińskie Forests PLH020081. The locations should be equipped with sorbents enabling fast elimination of results of leaks of fuel and oil derivatives. Places of work, where the border of the Natura 2000 site Grędzińskie Forests is less than 3 meters, should be separated with a barrier, for the duration of the work in these places;
- I.2.1.16 - The environmental team prepares required materials and motions for obtaining permission for departure from the prohibitions connected with protected species of plants, fungi and animals under conditions and procedure specified in the Act of 16 April 2004 on environmental protection;
- I.2.1.20 – If species of plants, fungi or animals under protection are found in the place of performing construction works, the Contractor will obtain required permits for departures from prohibitions in relation to protected species issued by RDOŚ/GDOŚ (Article 56 section 1 and 2 of the Act of 16 April 2004 on environmental protection);

- I.2.1.27 – During construction works it is not allowed to destroy plants within the area of the Natura 2000 site Grędzińskie Forests PLH020081. Works related to the sealing of the "Przerowa L" embankment will be conducted from the embankment crest and from the dry side;
- I.2.1.33 – All works relating to the performance of measures mitigating the project's negative environmental impact to be pursued under constant nature supervision conducted by relevant specialists provided by the Contractor. The Contractor's Nature supervision shall include the following team of experts: botanist/phytosociologist, expert for fauna protection and expert ichthyologist. The Contractor's Nature supervision will be responsible for the proper implementation of mitigation measures for the environment during works construction. The experts of Contractor's Nature supervision must be accepted by the Engineer before civil works execution. The Contractor's Nature supervision conducts the inspection of the area of works construction prior to their implementation and during such works;

Two additional sub-clauses detailing the above measures are also added:

- I.2.1.33.3 – The Contractor's Nature supervision, implemented by team experts, includes:
 - inspection and current inspection of area covered by construction and tailing works prior to their commencement and inspections during construction along with preparing relevant reports, constituting documentation of proper performance of environmental team and at the same time informing about due implementation of minimizing measures,
 - formulating and reporting to the Engineer requests with regard to the need of minimizing actions (along with their execution) necessary to alleviate unfavorable effects of Investment on natural habitats and species being the object of interest of the Community and subject to national legal protection (species protection) that were unforeseeable and/or impossible to disclose at the stage of agreeing on implementation terms of the concerned Investment under the procedure aimed at issuance of the decision on environmental conditions, the activities may be implemented only after the Engineer's acceptance;
- I.2.1.33.4 – The Contractor's Nature supervision performs reporting in the form of periodic reports (monthly, quarterly and final reports) submitted to the Engineer and requiring its approval.

The remaining content of the EMP for Contract B3-1 in the scope of objects entered into the Contract by Annex No. 2 remains without changes.

4 APPENDICES TO ANNEX NO. 2 TO EMP FOR B3-2

APPENDIX 1 - LOCATION MAP

APPENDIX 2 - LOCATION MAP OF THE INVESTMENT ON THE BACKGROUND OF THE NATURA 2000 NETWORK

APPENDIX 3 - LIST OF NATIONAL LEGAL ACTS