

# ENVIRONMENTAL MANAGEMENT PLAN

## ODRA-VISTULA FLOOD MANAGEMENT PROJECT – 8524 PL

*Environmental category B – according to OP 4.01 of WB*

### **Component 2:**

*Flood Protection of the Nysa Kłodzka Valley*

### **Sub-component 2A:**

*Active protection*

### **Contract for works 2A.2:**

*Construction of “Szalejów Górny” –  
a dry flood control reservoir on Bystrzyca Dusznicka River  
and  
Construction of “Krosnowice” –  
a dry flood control reservoir on Duna stream*

### **Task 2A.2/1:**

*Construction of “Szalejów Górny” –  
a dry flood control reservoir on Bystrzyca Dusznicka River*

**FINAL VERSION**

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FLOOD MANAGEMENT PROJECT

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## **ENVIRONMENTAL MANAGEMENT PLAN**

**Component:** *2 – Flood Protection of the Nysa Kłodzka Valley*

**Sub-component:** *2A – Active protection*

**Contract:** *2A.2 – Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River and Construction of “Krosnowice” – a dry flood control reservoir on Duna stream*

**Part of Contract:** *Implementation of Task 2A.2/1 – Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River*

**Project Implementation Unit:**

**Regional Water Management Authority in Wrocław**

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Joint Venture of *AECOM I&E UK Ltd, Halcrow Group Ltd, BRL Ingerierie and AECOM Polska Sp. z o.o.*

Wrocław, July 2017

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**List of basic definitions and abbreviations used in the EMP**

Name	Description
BGW	Body of Ground Water
BP	Bank Procedure <sup>1</sup>
BSW	Body of Surface Water
Consultant / Engineer / Contract Engineer	A company or a legal person providing the service of a Technical Assistance Consultant for the Regional Water Management Authority in Wrocław as part of OVFMP
Contract / Contract for works	Contract for works 2A.2 Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River and Construction of “Krosnowice” – a dry flood control reservoir on Duna stream
Contractor / Task Contractor / Contract Part Contractor	A company or a legal person implementing the Part of Contract for works 2A.2 Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River and Construction of “Krosnowice” – a dry flood control reservoir on Duna stream concerning Task 2A.2/1 Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
Environmental decision / DEC	Decision on the environmental conditions
ESMF	Environmental and Social Management Framework for OVFMP <sup>2</sup>
EU	European Union
GDOŚ	General Directorate for Environmental Protection
IEOP	Infrastructure and Environment Operational Programme
IMGW	Institute of Meteorology and Water Management
Investor / Employer / PIU	Regional Water Management Authority in Wrocław / OVFMP Project Implementation Unit
LA&RAP	Land Acquisition and Resettlement Action Plan
LSMP	Local spatial management plan
OP	Operational Policy (of the World Bank) <sup>3</sup>

<sup>1</sup> The World Bank’s Operational Policies and Procedures are presented in the document entitled *The World Bank Operational Manual*, available on the following website:  
<https://policies.worldbank.org/sites/PPF3/Pages/Manuals/Operational%20Manual.aspx>.

<sup>2</sup> The document is available on the website of OVFMP PCU, at the following address:  
[http://www.odrapcu.pl/popdow\\_dokumenty\\_RPZSiSS.html](http://www.odrapcu.pl/popdow_dokumenty_RPZSiSS.html).  
and on the World Bank’s website, at the following address:  
<http://documents.worldbank.org/curated/en/717671468333613779/Poland-Odra-Vistula-Flood-Management-Project-environmental-and-social-management-framework>.

<sup>3</sup> See the footnote for BP (Bank Procedure)

ORBMP	Odra River Basin District Management Plan
PAD	Project Appraisal Document <sup>4</sup> for OVFMP
Part of Contract / Part of Contract for works	Part of Contract for works 2A.2 <i>Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River and Construction of “Krosnowice” – a dry flood control reservoir on Duna stream</i> concerning Task 2A.2/1 <i>Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River</i>
PCU / OVFM PCU	Project Coordination Unit / OVFM Project Coordination Unit
PIO	Project Implementation Office – an organisational unit allocated as part of PIU
POM	Project Operations Manual <sup>5</sup> for OVFMP
Project / OVFMP / OVFM Project	Odra-Vistula Flood Management Project
RDOŚ	Regional Directorate for Environmental Protection
Road manager	An organizational unit fulfilling the obligations of managing public roads as defined by the <i>Public Road Act</i> or the obligations of managing a non-public road
RZGW	Regional Water Management Authority
SHP Plan	Safety and health protection plan
Task	Task 2A.2/1 <i>Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River</i> , constituting a Part of Contract for works 2A.2
UBSW	Unified Body of Surface Water
WMP	Waste Management Programme
World Bank / WB	International Bank for Reconstruction and Development / World Bank
ZMiUW	Board of Amelioration and Hydraulic Structures

<sup>4</sup> The document is available on the World Bank’s website, at the following address:  
<http://documents.worldbank.org/curated/en/320251467986305800/Poland-Odra-Vistula-Flood-Management-Project>.

<sup>5</sup> The document is available on the website of OVFM PCU, at the following address:  
[www.odrapcu.pl/lp.php?plik=doc/POM\\_PL.pdf](http://www.odrapcu.pl/lp.php?plik=doc/POM_PL.pdf).

## List of abbreviated names of legal acts used in the EMP

The names of legal acts cited in the text of this EMP are provided in abbreviated versions. Full names of those legal acts are stated on the list below.

Name in the text	Full name (with publication reference)
<i>Birds Directive</i>	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (EU OJ L 288 of 06.11.2007)
<i>Construction Law</i>	Act of July 7 <sup>th</sup> , 1994 Construction Law (consolidated text: Journal of Laws of 2016, item 290)
<i>Environmental Protection Law</i>	Act of April 27 <sup>th</sup> , 2001 Environmental Protection Law (consolidated text: Journal of Laws of 2016, item 672)
<i>EIA Regulation</i>	Regulation of the Council of Ministers of November 9 <sup>th</sup> , 2010 on projects likely to have significant effects on the environment (consolidated text: Journal of Laws of 2016, item 71)
<i>Habitats Directive</i>	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (EU OJ L 206 of 22.07.1992, as amended)
<i>Inland Fishing Act</i>	Act of April 18 <sup>th</sup> , 1985 on inland fisheries (consolidated text: Journal of Laws of 2015, item 652)
<i>Nature Conservation Act</i>	Act of April 16 <sup>th</sup> , 2004 on nature conservation (consolidated text: Journal of Laws of 2015, item 1651 as amended)
<i>Public Road Act</i>	Act of March 21 <sup>st</sup> , 1985 on public roads (consolidated text: Journal of Laws of 2015, item 460 as amended)
<i>Waste Act</i>	Act of December 14 <sup>th</sup> , 2012 on waste (consolidated text: Journal of Laws of 2013, item 21 as amended)
<i>Water Framework Directive (WFD)</i>	Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (EU OJ L 327 of 22.12.2000, as amended)
<i>Water Law</i>	Act of July 18 <sup>th</sup> , 2001 Water Law Act (consolidated text: Journal of Laws of 2015, item 469 as amended)

## EXECUTIVE SUMMARY

This Environmental Management Plan (EMP) concerns Task *2A.2/1 Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River*, which constitutes a part of Sub-component 2A within the Odra-Vistula Flood Management Project (OVFMP) and is implemented as the Part of Contract for works 2A.2.

The EMP presents i.a. the following information:

- a short description of the OVFM Project and its Component 2, which includes the Task in question (chapter 1.1 and 1.2);
- a description of the Task constituting the subject of this EMP (chapter 2);
- characterization of institutional, legal and administrative conditions of Task implementation, including the current status of EIA procedures for the Task (chapter 3);
- a description of individual elements of the environment in the surroundings of the Task (chapter 4);
- a summary of the Environmental Impact Assessment for the Task (chapter 5);
- a description of mitigation measures aimed at eliminating or limiting the potential negative environmental impact of the Task (chapter 6) together with tables presenting those measures (Appendix 1);
- a description of environmental monitoring measures binding on the Task (chapter 7) together with tables presenting those measures (Appendix 2);
- a description of the course of public consultations conducted at particular stages of developing the environmental documentation for the Task (chapter 8);
- a description of the organizational structure of EMP implementation (chapter 9);
- an EMP implementation schedule and a description of reporting procedures (chapter 10);
- a list of source materials cited in the EMP (chapter 11);
- copies of administrative decisions in the scope of environmental protection issued for the Task (Appendix 4).

### Characterization of the Task

The subject of the Task discussed in this EMP is the construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka river, with a maximum flooding area of 119 ha and a maximum retention volume of approx. 10.7 mln m<sup>3</sup>. The reservoir dam shall cross the Bystrzyca Dusznicka river valley at chainage km 8+910 of the river, south of Szalejów Górny and Szalejów Dolny villages (Lower Silesian Province, Kłodzko district, Kłodzko Municipality). The reservoir shall control a basin with a surface area of 128.6 km<sup>2</sup>, which constitutes approx. 64% of the Bystrzyca Dusznicka river basin surface area.

### Scope of the Task

The scope of Task *2A.2/1 Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River* includes the following elements:

- construction of a dam for a dry flood control reservoir (approx. 780 m long and maximally approx. 19 m high) with relief devices and instrumentation;
- relocation and regulation of the Bystrzyca Dusznicka river bed as well as regulation of the estuary section of the Cicha stream;
- construction of a rubble settling tank;



- construction of a side embankment;
- construction of a utility building;
- execution of road infrastructure and lighting;
- reconstruction of power networks;
- construction of a telecommunication network;
- reconstruction of the water network and the gas network;
- demolition of utility buildings downstream of the dam;
- performance of additional activities in the scope of environmental protection.

### **Institutional, legal and administrative conditions**

The Task is implemented in accordance with relevant national provisions of environmental protection in the scope of its characteristics, anticipated potential environmental impact and location in relation to protected areas.

### **The status of EIA administrative procedures**

The following administrative decisions in the scope of environmental protection are among the ones issued for the Task in question in the years of 2015-2016:

- a decision on the environmental conditions for the construction of “Szalejów Górny” dry flood control reservoir;
- a decision changing the decision on the environmental conditions for the construction of “Szalejów Górny” dry flood control reservoir;
- a decision exempting from provisions related to protection of plant species
- a decision exempting from provisions related to protection of animal species.

### **The status of elements of the environment in the surroundings of the undertaking**

As a result of works related to identifying the values of the natural and cultural environment it has been established that the Task implementation area and its surroundings are characterized by i.a. the following environmental conditions:

- the planned reservoir is located within the boundaries of a Body of Surface Water (BSW) named PLRW6000512188 *Bystrzyca Dusznicka od Kamiennego Potoku do Wielisławki* and Body of Ground Water (BGW) No. 125;
- the presence of the following was established in the Task implementation area and its immediate surroundings: 15 protected species of plants, 79 protected animal species and 5 types of natural habitats listed in Annex I to EU *Habitats Directive*;
- in the Task implementation area and its immediate surroundings, there are no Natura 2000 sites nor other areas or objects protected by the *Nature Conservation Act*;
- in the Task implementation area, there is 1 object of high cultural value and 5 archaeological sites.

### **Summary of the Environmental Impact Assessment**

#### *Earth surface and landscape*

Task implementation is related to permanent transformation of the earth surface for the construction of the reservoir dam, which shall also influence the landscape on a local scale.

#### *Climate*

Task implementation has no influence on the climate status.

### *Atmospheric air*

The influence of Task implementation on the sanitary status of the air is limited in time to the construction stage and is not significant.

### *Soils and grounds*

Task implementation is related to permanent transformation of the earth surface (including soil and grounds) for the construction of the reservoir dam, as well as to the possibility of polluting the substrate at the construction stage. At the operation stage, Task implementation has no influence on the soil and ground status.

### *Surface waters*

At the construction stage, Task implementation shall have an influence on the surface water status (by influencing the biological, hydromorphological and physical-chemical elements of water quality), but the influence shall be local and partially reversible, so it shall not be significant or constitute a hazard to the achievement of the environmental objective for the Body of Surface Water (BSW). At the operation stage, Task implementation has no influence on surface waters, except the planned reduction of increased flows of the Bystrzyca Dusznicka river downstream of the reservoir.

### *Groundwater*

Instances of short-term, transient, local lowering of the groundwater table may take place at the construction stage in relation to performing the necessary excavation drainages. At the operation stage, in the periods when the reservoir is filled with water, the groundwater level in its surroundings may increase, but that impact shall be short-term and transient due to the short time of water damming in the reservoir.

### *Acoustic climate*

The influence of Task implementation on the acoustic climate is limited in time to the construction stage and is not significant.

### *Biotic nature*

Task implementation shall have a negative impact on 5 types of natural habitats, 11 protected plant species and several dozen protected animal species (including: 2 species of fish, 6 species of amphibians and reptiles, 61 bird species, 2 species of flightless mammals and 8 bat species) present in the designed reservoir area. That impact stems first and foremost from the necessary scope of land occupation, tree felling and river regulation, and shall be significantly reduced owing to planned mitigation measures. Task implementation does not influence the status of Natura 2000 sites nor other protected areas or natural objects.

### *Cultural monuments and material goods*

Task implementation has no negative influence on cultural monuments.

The influence of Task implementation on the status of the remaining material goods is related to the necessity of introducing changes to the existing infrastructural objects (medium and low voltage power lines, water and gas networks, residential and utility buildings) and changes to the use of the lands located within Task boundaries. Additional impacts related to using the existing road network as access roads to the construction site may occur at the construction stage.

### *Human health and safety*

Task implementation does not generate significant hazards to human health and safety. These may only occur in the case of breakdowns, catastrophes and other random incidents (e.g. pollutant leak, fire, finding unexploded bombs or unfired rounds, flood). The EMP defines appropriate conditions aimed at preventing such events and minimizing their potential effects.

### **Mitigation and monitoring measures**

Chapter 6 and 7 of and Appendix 1 and 2 to the EMP describe and present in tables a set of mitigation and monitoring measures aimed at eliminating or limiting the negative environmental impact of the Task and ensuring effective implementation of EMP conditions. Those measures contain conditions defined in the issued administrative decisions in the scope of environmental protection and additional conditions established when developing the EMP.

### **Public consultations**

Chapter 8 of the EMP contains a report of public consultations conducted as part of EIA procedures for the planned Task, including:

- public consultations for the document entitled *Environmental and Social Management Framework (ESMF)* for OVFMP Project (2015);
- public consultations conducted at the stage of issuing environmental decisions for the Task (2013-2016);
- public consultations for this Environmental Management Plan (2017).

## 1. INTRODUCTION

This Environmental Management Plan (EMP) concerns Task 2A.2/1 *Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River*, which constitutes a part of Sub-component 2A within the Odra-Vistula Flood Management Project (OVFMP) and is implemented as the Part of Contract for works 2A.2.

### 1.1. ODRA-VISTULA FLOOD MANAGEMENT PROJECT (OVFMP)

The Odra-Vistula Flood Management Project (OVFMP) is aimed at increasing the flood protection level of people living in selected areas of the Odra river basin and the Upper Vistula river basin as well as institutional strengthening of governmental administration in the scope of ensuring more effective protection against summer floods, winter floods and flash floods.

The project has five components (including three investment components and two institutional/organizational components):

**Component 1 – Flood Protection of the Middle and Lower Odra**, including:

- Sub-component 1A – Flood protection of areas in Zachodniopomorskie Voivodship;
- Sub-component 1B – Flood Protection of Middle and Lower Odra;
- Sub-component 1C – Flood protection of Słubice city.

**Component 2 – Flood Protection of the Nysa Kłodzka Valley**, including:

- Sub-component 2A – Active protection;
- Sub-component 2B – Passive protection.

**Component 3 – Flood Protection of the Upper Vistula**, including:

- Sub-component 3A – Flood protection of Upper Vistula towns and Kraków;
- Sub-component 3B – Protection of Sandomierz and Tarnobrzeg;
- Sub-component 3C – Passive and active protection in Raba Sub-basin;
- Sub-component 3D – Passive and active protection in San basin.

**Component 4 – Institutional Strengthening and Enhanced Forecasting**

**Component 5 – Project Management and Studies**

Detailed information and additional documents concerning the OVFM Project are available on the website of the Odra-Vistula Flood Management Project Coordination Unit (<http://www.odrapcu.pl>) and on the website of the World Bank (<http://documents.worldbank.org/curated/en/docsearch/projects/P147460>).

## **1.2. FLOOD PROTECTION OF THE NYSA KŁODZKA VALLEY (COMPONENT 2 OF THE OVFMP)**

Component 2 of the OVFMP Project entitled *Flood Protection of the Nysa Kłodzka Valley* is aimed at providing flood protection for Kłodzko and other smaller towns and villages of the Kłodzko Valley as far as to the city of Bardo, located at the inlet to the Valley from the side of Wrocław.

Two Sub-components shall be implemented within the Component:

### **Sub-component 2A – Active protection**

This Sub-component concerns construction of dry flood control reservoirs located on the Nysa Kłodzka river and its tributaries in the Kłodzko Valley, and includes the following four investment Tasks:

- 2A.1/1 – Construction of “Boboszów”
  - a dry flood control reservoir on Nysa Kłodzka River;
- 2A.1/2 – Construction of “Roztoki Bystrzyckie”
  - a dry flood control reservoir on Goworówka stream;
- 2A.2/1 – Construction of „Szalejów Górny”
  - a dry flood control reservoir on Bystrzyca Dusznicka River;
- 2A.2/2 – Construction of „Krosnowice”
  - a dry flood control reservoir on Duna stream.

### **Sub-component 2B – Passive protection**

This Sub-component concerns protection of the areas along the Nysa Kłodzka river and its tributaries in the Kłodzko Valley using measures of passive flood protection, and includes the following four investment Tasks:

- 2B.1/1 – Flood protection of Nysa Kłodzka River Valley;
- 2B.1/2 – Flood protection of Ścinawka River Valley;
- 2B.2/1 – Flood protection of Biała Łądecka River Valley and Morawka River;
- 2B.2/2 – Flood protection of Bystrzyca Dusznicka River Valley and Kamienny Potok River.

## 2. DESCRIPTION OF THE TASK

The Task constituting the subject of this EMP concerns the construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka river. The Project Implementation Unit (PIU) for the Task is the Regional Water Management Authority in Wrocław.

### 2.1. LOCATION OF THE TASK

The Task shall be implemented in the Lower Silesian Province, Kłodzko district, Kłodzko Municipality, in two village administration units: Szalejów Górny and Szalejów Dolny.

The dry flood control reservoir shall be constructed south of Szalejów Górny and Szalejów Dolny (approx. 80 m from the edge of the built-up areas of Szalejów Dolny), approx. 5 km west of Kłodzko and approx. 15 km north-west of Bystrzyca Kłodzka. The reservoir was designed in the middle part of the Bystrzyca Dusznicka river basin (the reservoir dam is located at chainage km 8+910 of that river, approx. 200 m upstream of the Cicha stream estuary to the Bystrzyca Dusznicka river).

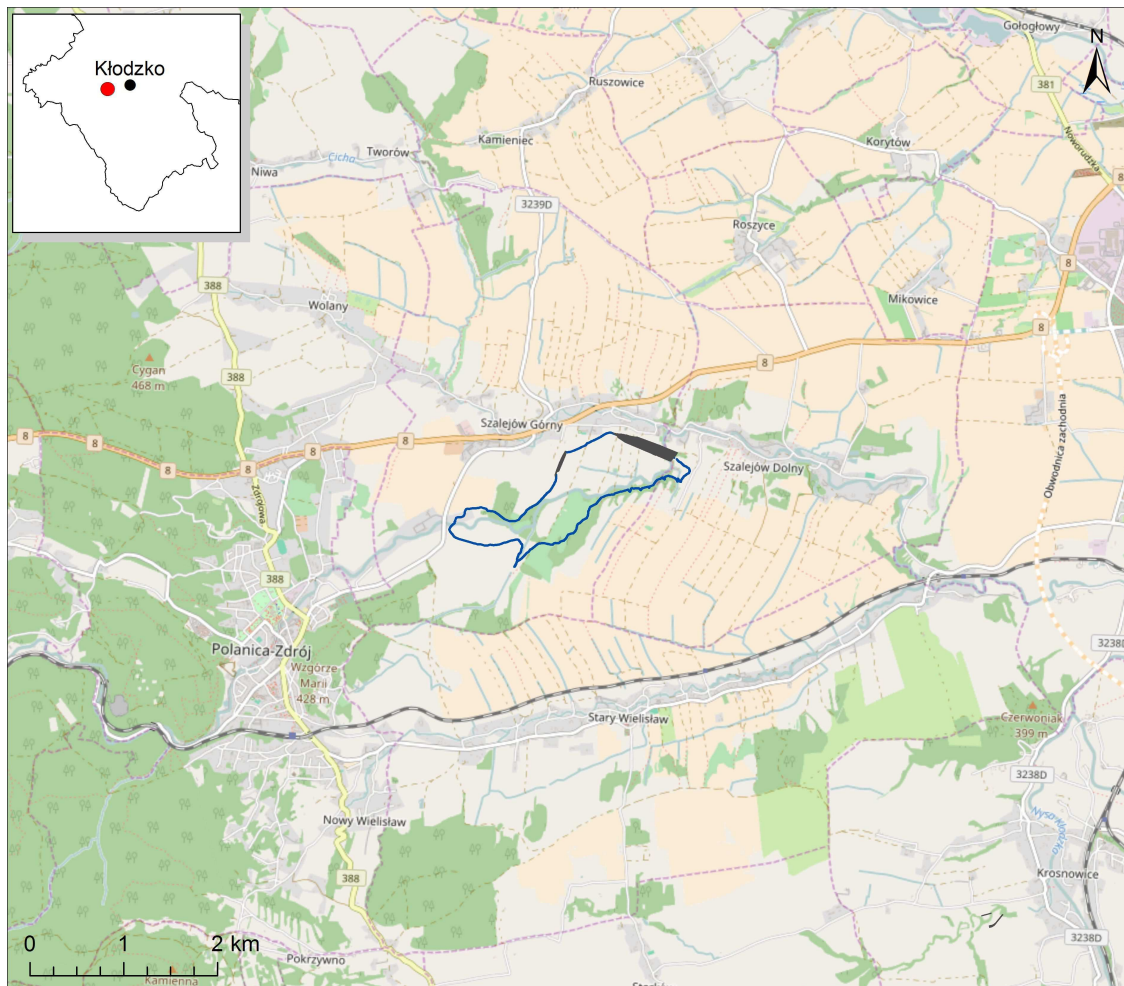


Figure 1. Task location – an overview map  
(source: © authors of OpenStreetMap; licence: <http://www.openstreetmap.org/copyright>)

## **2.2. CHARACTERIZATION OF THE TASK**

The “Szalejów Górny” dry flood control reservoir shall have a maximum flooding area of 119 ha and a maximum retention volume of approx. 10.7 mln m<sup>3</sup>. The main elements included in the Task scope are listed below.

### **Construction of a reservoir dam**

The reservoir dam is located at chainage km 8+910 of the Bystrzyca Dusznicka river, with the crest at an elevation of 342.3 m AMSL. It is designed as an earth-fill dam.

The basic technical parameters of the designed dam are as follows:

- maximal dam height – approx. 19 m;
- dam length – approx. 780 m;
- dam crest width – 5 m;
- inclination of the upstream and downstream slope – 1:3.

The reservoir relief devices are designed in the form of two independent systems: sluice devices and spillway devices.

The sluice devices shall pass water during normal reservoir operation as well as flood waters. They are designed in the form of two reinforced concrete pipes (length – approx. 150 m). The inlet to one of the pipes is located at a lower level, while to the other one – at a higher level. In normal conditions, the waters in the river shall flow through the first of a/m pipes, while in flood conditions they shall flow through both pipes. The sluice devices shall be equipped with gates in the form of valves with an electrical drive.

The spillway devices are designed in the form of a sloped spillway with an outflow bed leading to the Bystrzyca Dusznicka river, located at the eastern edge of the dam.

The reservoir shall be equipped with instrumentation.

### **Relocation and regulation of watercourse beds**

The planned works related to the existing watercourse beds include i.a. the following:

- relocation of the present bed of the Bystrzyca Dusznicka river on the section upstream and downstream of the dam to the new bed (total length: approx. 450 m, including the sluice pipe in the dam body);
- reconstruction of the Bystrzyca Dusznicka river bed and the estuary section of the Cicha stream downstream of the dam (total length: approx. 450 m);
- sectional regulation of the Bystrzyca Dusznicka river bed upstream of the dam (total length: approx. 1,700 m).

### **Construction of a rubble settling tank**

A rubble settling tank shall be constructed on the right bank of the Bystrzyca Dusznicka river bed (approx. 2.5 km upstream of the dam) in the reservoir basin. In spring and summer, the settling tank shall be filled with water with a minimal depth of 13-30 cm.

### **Construction of a side embankment**

An approx. 300 m long side embankment shall be constructed on the northern slope of the Bystrzyca Dusznicka river valley (approx. 1 km upstream of the dam). The embankment shall protect the area of a new housing estate which is being built north-west of the reservoir basin (approx. 50 m from the side embankment).

### **Construction of a utility building**

The utility building was designed at the western end of the dam.

### **Performance of road infrastructure and lighting**

The designed works include i.a.:

- construction of access and service roads;
- execution of lighting systems.

### **Reconstruction of the network infrastructure and demolition of residential and utility buildings**

The designed works include i.a.:

- reconstruction of a medium voltage 20 kV power line;
- reconstruction of low voltage power lines;
- construction of a telecommunication network;
- reconstruction of the water network and the gas network;
- demolition of utility buildings downstream of the dam.

### **Performance of additional activities in the scope of environmental protection**

Additional activities in the scope of environmental protection include i.a.:

- performance of plantings (including i.a. natural habitats \*91E0<sup>1</sup> and \*9180<sup>2</sup>) with the minimal surface area of 9 ha;
- installation of 96 nest boxes and 4 platforms for birds as well as 50 boxes for bats.

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<sup>1</sup> \*91E0 – Riparian mixed forests of willow, poplar, alder and ash tree (*Salicetum albo-fragilis*, *Populetum albae*, *Alnenion glutinoso-incanae*) as well as alder forests on percolating mires.

<sup>2</sup> \*9180 – Tilio-Acerion forests of slopes, screes and ravines (*Tilio-platyphyllis-Acerion pseudoplatani*).



### **3. INSTITUTIONAL, LEGAL AND ADMINISTRATIVE CONDITIONS**

#### **3.1. INSTITUTIONS INVOLVED IN TASK IMPLEMENTATION**

The Task Investor is the Regional Water Management Authority in Wrocław, which acts in the name and on behalf of the State Treasury. Moreover, at the construction and operation stages, Task implementation may require involving public administration bodies on the central, regional and local level. For the purposes of the current coordination of the Project implementation, an organizational unit named Odra-Vistula Flood Management Project Coordination Unit was established.

#### **3.2. BINDING NATIONAL LEGAL ACTS CONCERNING THE ENVIRONMENT**

Under Polish law, the investment process in the scope concerning the environment is governed by about a dozen of acts and regulations. Appendix 3 presents a list of selected primary legal acts related to the abovementioned thematic scope and binding in the period of the works on the EMP. The number and content of the legal acts listed there may change when the national provisions in the scope of environmental protection are amended. In each case, the Contractor is obliged to observe all legal regulations binding in Poland throughout the Contract term.

#### **3.3. THE EIA PROCEDURE IN POLAND**

A description of the Environmental Impact Assessment procedure binding under Polish law is included in the *Environmental and Social Management Framework (ESMF)*, published i.a. on the website of the Odra-Vistula Flood Management Project Coordination Unit<sup>1</sup> and of the World Bank<sup>2</sup>.

#### **3.4. GUIDELINES OF THE WORLD BANK**

The Task in question is co-financed by the World Bank and its implementation conditions in the scope of environmental protection comply with WB *Operational Policies* and *Bank Procedures* in the scope of environmental protection, including i.a. the following policies and procedures: *OP/BP 4.01* (concerning the Environmental Impact Assessment), *OP/BP 4.04* (concerning natural habitats) and *OP/BP 4.11* (concerning cultural resources).

The source texts of the abovementioned policies and procedures are included in a document entitled *The World Bank Operational Manual*<sup>3</sup> and their descriptions are presented i.a. in the *Environmental and Social Management Framework (ESMF)*.

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<sup>1</sup> On the website: [http://www.odrapcu.pl/popdow\\_dokumenty\\_RPZSiSS.html](http://www.odrapcu.pl/popdow_dokumenty_RPZSiSS.html).

<sup>2</sup> On the website: <http://documents.worldbank.org/curated/en/717671468333613779/Poland-Odra-Vistula-Flood-Management-Project-environmental-and-social-management-framework>.

<sup>3</sup> On the website: <https://policies.worldbank.org/sites/PPF3/Pages/Manuals/Operational%20Manual.aspx>.

### 3.5. CURRENT STATUS OF EIA PROCEDURES FOR THE TASK

The following decisions in the scope of environmental protection have been obtained for the Task in question:

#### A) A decision on the environmental conditions for reservoir construction

According to the classification included in the *EIA Regulation*, the undertaking concerning construction of a dry flood control reservoir belongs to group I, i.e. to undertakings which might always have a significant impact on the environment and for which conducting an Environmental Impact Assessment is required before issuing a decision on the environmental conditions.

The proceedings concerning issuing a decision on the environmental conditions for reservoir construction, during which the Environmental Impact Assessment was carried out, were concluded by issuing a decision of the Regional Director for Environmental Protection in Wrocław of September 30<sup>th</sup>, 2015 on the environmental conditions (ref. No.: WOOŚ.4233.8.2013.ŁCK.54 – Appendix 4a to the EMP). Since an appeal was lodged against the abovementioned decision, the General Director for Environmental Protection in Warsaw examined the case and, on May 16<sup>th</sup>, 2016, issued a decision partially changing the abovementioned decision of the Regional Director for Environmental Protection in Wrocław (ref. No.: DOOŚoaII.4200.24.2015.EK.7 – Appendix 4b to the EMP).

#### B) Decisions exempting from provisions related to protection of species

Scaring and disturbing as well as destruction of specimens and habitats of protected plant and animal species may take place during Task implementation, so the Regional Water Management Authority in Wrocław, as the Investor, submitted applications for issuing a decision exempting from bans related to specimens of plants and animals covered by species protection to the Regional Directorate for Environmental Protection in Wrocław. The administrative proceedings concerning that case were concluded by issuing a decision of the Regional Director for Environmental Protection in Wrocław of August 26<sup>th</sup>, 2016 exempting from bans related to plants covered by species protection (ref. No.: WPN.6400.47.2016.IL – Appendix 4c to the EMP) and a decision of the Regional Director for Environmental Protection in Wrocław of August 26<sup>th</sup>, 2016 exempting from bans related to animals covered by species protection (ref. No.: WPN.6401.268.2016.IL – Appendix 4d to the EMP).

Copies of the abovementioned administrative decisions issued in the years of 2015-2016 are shown in Appendix 4 to the EMP.

Regardless of the above, the Contractor is obliged to obtain all further administrative decisions if it becomes necessary during Task implementation.

## **4. DESCRIPTION OF ELEMENTS OF THE ENVIRONMENT IN THE SURROUNDINGS OF THE TASK**

This chapter describes the status of elements of the environment in the surroundings of the Task on the basis of the information contained in the EIA Report (2014) with supplementations.

### **4.1. EARTH SURFACE AND LANDSCAPE**

Considering the physical-geographical division of Poland, the planned investment is located within the Kłodzko Valley mesoregion, which borders on the Ścinawka Depression in the north and on the Stołowe Mountains and the Bystrzyckie Mountains in the west. That mesoregion belongs to the Middle Sudety macroregion.

The landscape surrounding the area of the planned Task is dominated by wavy relief of the upland type. The upland areas located on two sides of the Kłodzko Valley are small, slightly wavy uplifts with an average height of approx. 500 m AMSL, crossed by shallow valleys of numerous streams. This area has the nature of a denuded upland with local hills and, due to surrounding mountain massifs, is a typical mid-mountainous depression.

The area has a cultural-cultivation landscape. Most of the area is occupied by spacious farmlands as well as meadows and tree covers (the latter are situated especially along the watercourse beds).

### **4.2. CLIMATE**

There is moderate Central European mid-mountainous climate in the area of the Task in question. It is determined by two factors: the altitude above mean sea level and the orographic system. Seasons of the year are easily recognizable and identified by temperature changes (warm and humid spring, warm and often dry summer, cool and humid autumn and frosty winter with significant snowfall). The cloud cover is medium in autumn and winter and is the smallest in summer.

### **4.3. ATMOSPHERIC AIR**

In the region of the planned reservoir construction, there are several facilities the functioning of which could deteriorate the sanitary status of the air. These are: a municipal wastewater treatment plant in Polanica Zdrój (approx. 1.5 km south-west of the dam), a liquid fuel warehouse (approx. 1.7 km west of the dam), “Syntetyka” industrial plant in Szalejów Dolny (approx. 1.4 km east of the dam) and Kłodzko – Polanica Zdrój national road No. 8 (running less than 1 km north of the reservoir basin). Emission from so-called low sources (mainly home furnaces) in Szalejów Górny and Szalejów Dolny may also determine air pollution in the discussed region.

### **4.4. SOILS AND GROUNDS**

The discussed area features mainly brown soils and acid brown soils, while the watercourse valleys feature mainly alluvial soils. Most of the soils are used as farmlands (pastures and meadows) in valuation class III and IV.

## 4.5. SURFACE WATERS

The planned reservoir lies on the Bystrzyca Dusznicka river – a left-hand side tributary of the Nysa Kłodzka river. Bystrzyca Dusznicka is 36 km long and its sources are located in the Orlickie Mountains near Zieleniec. The main tributaries of the Bystrzyca Dusznicka river flowing into it upstream of the reservoir are Kamienny Potok with Czerwona Woda. The Cicha and Wielisławka streams flow into the Bystrzyca Dusznicka river downstream of the reservoir. The length of Bystrzyca Dusznicka counted from the sources to the computational section in which the dam was located amounts to approx. 27 km. The dam shall close the basin with a surface area of 128.6 km<sup>2</sup>, which constitutes approx. 64% of the Bystrzyca Dusznicka river basin surface area.

The designed reservoir is located within the boundaries of a Body of Surface Water (BSW) named PLRW6000512188 *Bystrzyca Dusznicka from Kamienny Potok to Wielisławka*.

Bystrzyca Dusznicka is a controlled watercourse. The characteristic flows in the scope of average and low water levels calculated for the dam section are as follows:

Characteristic flow	Flow intensity Q [m <sup>3</sup> /s]
SNQ (average low flow)	0.53
SSQ (average annual flow)	1.61

Calculated maximum flows are as follows:

Probability [%]	Flow intensity Qp% [m <sup>3</sup> /s]
50	20.0
10	61.6
5	83.4
2	118.0
1	148.0
0.5	183.0
0.3	212.0
0.2	237.0
0.1	285.0
0.05	338.0

### Arrangements stemming from the *Odra River Basin District Management Plan (ORBDMP)*

The designed reservoir is located in the Middle Odra water region, in the Nysa Kłodzka balance basin, in the basin of a Body of Surface Water (BSW) named PLRW6000512188 *Bystrzyca Dusznicka from Kamienny Potok to Wielisławka*, which belongs to Unified Body of Surface Water (UBSW) code SO0904.

The length of watercourses in the BSW basin amounts to 71.2 km, while the basin surface area – 152.5 km.

According to the binding *Odra River Basin District Management Plan*, the BSW in question belongs to type 5 – an upland silicate stream with fine-grained substrate. *Bystrzyca Dusznicka*

from *Kamienny Potok to Wielisławka* BSW is a natural water body the status of which was assessed as bad. The environmental objective for this BSW is the achievement of a good water status by obtaining a good ecological status and a good chemical status. The BSW in question is threatened with a risk of failure to achieve the environmental objective according to the WFD, and therefore it received a derogation under Article 4(7) of the WFD with the following justification: “due to the planned activities in the scope of implementing investments which cause changes in BSW physical characteristics and are of higher public interest, i.e. flood protection, the implementation of those plans prevents the achievement of assumed environmental objectives by the BSW”.

Moreover, the area of *Bystrzyca Dusznicka from Kamienny Potok to Wielisławka* BSW features detailed environmental objectives, set out due to the presence of protected areas included in the lists referred to in Article 113 Par. 4 of the *Water Law*, such as:

- areas sensitive to eutrophication caused by pollution coming from municipal sources (the entire area of Poland),
- bodies of water intended for water uptake for the purposes of providing the population with water for consumption,
- areas intended for protection of natural habitats or species for which maintenance or improvement of water status is an important protection factor (the Bystrzyckie Mountains and the Orlickie Mountains protected landscape area (PLA); the Stołowe Mountains National Park; and Natura 2000 sites: Góry Stołowe (PLB020006, PLH020004), Piekielna Dolina koło Polanicy (PLH020010), Grodczyn i Homole koło Dusznik (PLH020039).

The planned Task, consisting in the construction of “Szalejów Górny” – a dry flood control reservoir on the Bystrzyca Dusznicka river, was included in a supplementary study for the *Odra River Basin District Management Plan (so-called MasterPlan)* under No. 1\_502\_O (Annex No. 2, List No. 1) and was classified there as an investment which does not have a negative impact on achieving a good water status or does not deteriorate water status.

#### 4.6. GROUNDWATER

Two aquifer levels can be distinguished in the area of the planned reservoir: the Cretaceous level and the Quaternary level. Taking into consideration the Cretaceous level, the major part of the reservoir is located within the Main Groundwater Reservoir No 341 (the intra-Sudety basin Kudowa Zdrój – Bystrzyca Kłodzka). It is a reservoir of fissure and pore water connected with occurrence of cracks and gaps in the upper Cretaceous formations (in marlstones and sandstones).

The Quaternary aquifer level occurs in turn in Holocene sand and gravel formations, in the bottom of the valley (in the middle part of the reservoir basin). It is a near-surface level, in which the water table is stabilized on a depth of 2.5-0.2 m. The near-surface level waters are in contact with the Bystrzyca Dusznicka river waters and are drained by ditches. The near-surface level is also in hydraulic contact with the Cretaceous level situated below. That contact depends on the isolation degree of the Cretaceous formations.

The area of the planned reservoir is located outside the water uptake areas. The south-western part of the reservoir basin is situated within the range of “Polanica Zdrój” mining site, established for a deposit of medicinal waters, but the nearest developed sources or boreholes of mineral waters are located approx. 2 km away from the reservoir basin boundaries.

The impact area of the planned reservoir is located within the boundaries of BGW code PLGW6220\_110, which belongs to the Middle Odra water region and to Odra river basin area code 6000. The groundwater quantitative status and chemical status was assessed as good and the groundwater is not threatened with a risk of failure to achieve the environmental objectives. According to a new division of bodies of ground water, the Task implementation area is located in the area of BGW No. 125.

#### **4.7. ACOUSTIC CLIMATE**

The acoustic climate in the area of the planned reservoir is shaped mainly by the communication network, i.e. Kłodzko – Polanica Zdrój national road No. 8 and Polanica Zdrój – Szalejów Górny road. Less significant sources of noise shaping the acoustic climate in this region are seasonal agricultural works.

The nearest residential building is building No 72, which is situated about 80 m north of the designed reservoir dam. The zone of up to 100 m from the dam includes a total of 3 residential buildings and 11 utility buildings, while the zone of up to 150 m from the dam includes a total of 12 residential buildings and 33 utility buildings.

#### **4.8. BIOTIC NATURE**

##### **4.8.1. Protected natural habitats and species**

###### **Natural habitats from Annex I to the *Habitats Directive***

5 types of natural habitats from Annex I to the *Habitats Directive* were determined in the area of the planned Task. They are:

- 3260 – watercourses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation. The communities cover the entire Bystrzyca Dusznicka river bed in the Task implementation area on an approx. 3.5 km long section with a surface area of 3.3 ha. The general conservation status was assessed as unfavourable bad (U2).
- 6430 – mountain herbs (*Adenostylin alliariae*) and riparian herb growths (*Convulvuletalia sepium*). 4 patches of habitat were determined (total surface area: 1.05 ha). The habitat occurs mainly on the Bystrzyca Dusznicka river and its conservation status was determined as unfavourable inadequate (U1).
- 9170 – *Galio-Carpinetum* and *Tilio-Carpinetum* oak-hornbeam forests. 3 patches of habitat were determined (total surface area: 2.43 ha). The habitat occurs in the eastern part of the Bystrzyca Dusznicka river valley. The general conservation status of the habitat was determined as unfavourable bad (U2).
- \*9180 – *Tilio-Acerion* forests of slopes, screes and ravines (*Tilio-platyphyllis-Acerion pseudoplatani*). 1 patch of habitat was determined (surface area: 7.27 ha). It is situated on a steep slope on the right bank of the Bystrzyca Dusznicka river. The general conservation status of the habitat was determined as unfavourable inadequate (U1).
- \*91E0 – riparian mixed forests of willow, poplar, alder and ash tree (*Salicetum albofragilis*, *Populetum albae*, *Alnenion glutinoso-incanae*) as well as alder forests on percolating mires. 1 patch of habitat was identified (surface area: 5.0 ha). The habitat occurs

along the Bystrzyca Dusznicka river bed. The general conservation status was determined as unfavourable bad (U2).

A detailed description of occurrence of the abovementioned natural habitats is presented in the EIA Report prepared in 2014 for the purposes of obtaining a decision on the environmental conditions. Location of the abovementioned natural habitats (based on data from EIA Report) is presented on the map in Appendix 8 to the EMP.

### **Protected species of plants**

Occurrence of 20 plant species considered as rare, including 15 species protected in Poland, was determined in the area of the planned Task.

A list of rare and protected plant species determined in the area of the designed reservoir is presented in Table 1 in Appendix 5. That table includes species protected under currently binding national provisions of law and the remaining rare species (those included in *Polish Plant Red Data Book* or put on the *Red List of Vascular Plants of Lower Silesia*). The table does not include species that lost their protected status in relation to changes to the list of species protected in Poland but were subject to protection in the EIA Report preparation period (and were listed in the Report as protected species).

### **Protected species of animals**

A total of 79 protected animal species was identified within the impact area of the planned Task.

4 species representing fish fauna were identified in the Bystrzyca Dusznicka waters flowing within the designed reservoir basin. Two of them are subject to species protection: Stone loach *Barbatula barbatula* and Brook lamprey *Lampetra planeri*.

Amphibians and reptiles in the Task implementation area are represented by 6 species subject to partial protection (2 frog species, 1 toad species, 1 newt species, 1 lizard species and 1 snake species).

The most numerous group of protected animals in the area in question is birds. 61 bird species covered by species protection were determined here, including 4 species from Annex I to the *Birds Directive*. The presence of birds in this area is favoured by habitat diversification within the planned reservoir: the presence of tree stands (including riparian and oak-hornbeam forests) and shrubs, as well as the closeness of the stream beds create good conditions for breeding, feeding and resting for many birds. Some of those species are open area birds: their mosaic is present in the agriculturally used area in the surroundings of tree-covered areas.

Flightless mammals constitute a relatively small percentage of species determined in the analysed area. 2 species subject to partial protection were identified here. Beside flightless mammals, 8 protected bat species were determined in the Task implementation area.

A list of protected species of animals determined in the area of the designed reservoir is presented in Tables 2-6 in Appendix 5 to the EMP. Detailed descriptions of occurrence of individual species are presented in the EIA Report (2014).

## 4.8.2. Protected areas and objects

### Natura 2000 sites

There are no Natura 2000 sites in the designed reservoir area or its immediate vicinity.

In the close vicinity of the reservoir (up to 3.5 km), there are three Natura 2000 sites, including two belonging to a category of so-called habitat areas: “Góry Stołowe” (PLH020004) – approx. 2.3 km W of the reservoir and “Piekielna Dolina koło Polanicy” (PLH020010) – approx. 3.3 km SW of the reservoir, as well as one belonging to a category of so-called bird areas: “Góry Stołowe” (PLB020006) – approx. 2.3 km W of the reservoir.

In the further vicinity of the reservoir (up to 10 km away), there are three Natura 2000 sites belonging to a category of so-called habitat areas:

- 1) “Pasma Krowiarki” (PLH020019) – 7.4 km SE of the reservoir;
- 2) “Dolina Bystrzycy Łomnickiej” (PLH020083) – 8.7 km SW of the reservoir;
- 3) “Przełom Nysy Kłodzkiej koło Morzyszowa” (PLH020043) – approx. 8.9 km NE of the reservoir.

Location of the Natura 2000 sites situated in the close vicinity of reservoir (up to 3.5 km) is presented on the map in Appendix 7 to the EMP.

### Other protected areas and objects

In the area of the designed reservoir and in its immediate vicinity, there are no area forms or spot forms of nature protection as defined by the *Nature Conservation Act*. In the close vicinity of the reservoir (up to 3.5 km), there is a buffer zone of the “Góry Stołowe” National Park (1.8 km W of the reservoir). The following protected areas are located in the further vicinity (up to 10 km): “Góry Bystrzyckie i Orlickie” Protected Landscape Area (3.8 km SW of the reservoir), “Góry Stołowe” National Park (7.2 km NW of the reservoir) and “Góry Bardzkie i Sowie” Protected Landscape Area (8.9 km NE of the reservoir).

Location of the protected areas situated in the close vicinity of reservoir (up to 3.5 km) is presented on the map in Appendix 7 to the EMP.

## 4.9. CULTURAL MONUMENTS

In the area of the designed reservoir, there is one object of high cultural value. It is a two-span stone road bridge over the Bystrzyca Dusznicka river. It is located in the reservoir basin, approx. 140 m south-west of the planned dam. This object is listed in the list of monuments of the Regional Office for the Protection of Monuments in Wrocław<sup>1</sup>. Moreover, there are five archaeological sites in the reservoir basin.

In the remaining area of the designed reservoir, there are no monuments, objects of high cultural value or cultural assets.

Location of the abovementioned objects of high cultural value and archaeological sites is presented on the map in Appendix 8 to the EMP.

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<sup>1</sup> On the website: <https://wsoz.ibip.wroc.pl/public/?id=92696>.



#### **4.10. POPULATION AND MATERIAL GOODS**

A large part of the area within in the designed “Szalejów Górny” reservoir boundaries and its immediate vicinity is occupied by spacious farmlands, damp meadows and small tree stand areas. In addition, a number of dirt roads run through the reservoir area, providing access to meadows and arable lands. In the Task area, there are four road bridges, bridge heads and two utility buildings anticipated for demolition.

There are two villages in the immediate vicinity of the reservoir: Szalejów Górny (approx. 860 residents) and Szalejów Dolny (approx. 650 residents). The nearest residential building is building No. 72, which is situated about 80 m north (downstream) of the reservoir dam. In the Task implementation area and its immediate vicinity, there are relatively numerous facilities of power, telecommunication and sanitary systems, which require reconstruction. Moreover, there is one monument in the Task area – a bridge over the Bystrzyca Dusznicka river (described in chapter 4.9).

## **5. SUMMARY OF THE ENVIRONMENTAL IMPACT ASSESSMENT**

### **5.1. EARTH SURFACE AND LANDSCAPE**

#### **Earth surface**

The impact exerted on the earth surface shall be related to temporary and permanent land occupation. At the construction phase, temporary exclusion of land from its previous use in the Task area shall be related i.a. to establishing a construction site backyard and access roads. After construction completion, the construction site backyard and the access roads shall be demolished and the land shall be reinstated.

Permanent exclusion of land from its previous use related to the construction phase shall concern i.a. dam body foundation together with the upstream and downstream stations, construction of a rubble settling tank, construction of roads, backfilling of river sections, excavations for the new bed sections and excavations in the soil acquisition areas.

The total surface area of lands which shall be transformed as a result of implementation of the Task shall reach approx. 47 ha.

#### **Landscape**

The constructed dam in the form of an earth-fill embankment (approx. 780 m long and up to 19 m high), crossing the Bystrzyca Dusznicka river valley, shall be a dominant element of landscape and at the same time an alien one in the natural river valley (that effect shall be additionally strengthened by the presence of internal roads and lighting systems). Adopted technical solutions, including construction of an earth-fill dam with turfed slopes, shall reduce investment impact exerted on the landscape. Additional elements connected with landscape protection shall be: limitations on area occupation at the works stage, limitation on the scope of tree felling and planting trees and shrubs.

### **5.2. CLIMATE**

#### **Modification of climatic conditions**

The designed reservoir shall be a dry one, filled with water only for a short time during flooding risk periods. Due to the short time of filling the reservoir with water, it shall have no influence on any climatic phenomena at the operation stage and the microclimate in its region shall not change.

#### **Greenhouse gas emission**

Exhaust fumes (including carbon dioxide, classified as a greenhouse gas) shall be emitted at the construction stage as a result of fuel combustion by vehicles and construction machinery. Moreover, demand for electrical energy shall occur in connection with using the construction site backyard, operating machines and devices and lighting the construction site (electrical energy consumption is related to greenhouse gas emission during its production in power plants).

The demand for electrical energy at the reservoir operation stage shall be mainly related to using the utility building, supplying facilities connected with the dam and functioning of the lighting system.

### **Making the Task resistant to negative phenomena accompanying climate changes**

The planned reservoir was designed in accordance with binding hydraulic provisions, which take into account extreme phenomena taking place in the environment in connection with climate changes (this is governed by appropriate provisions concerning design, construction and operation of flood control reservoirs). On the other hand, construction of new dry flood control reservoirs (including the “Szalejów Górny” reservoir) shall improve flood protection of numerous towns and villages located in the Kłodzko Valley and thus contribute to limiting the effects of negative phenomena accompanying climate changes.

### **5.3. ATMOSPHERIC AIR**

At the construction stage, unorganized emission of exhaust fumes generated in connection with operating vehicles and construction machinery shall be the source of pollution emission to atmospheric air. The primary pollutants emitted to the air due to diesel oil combustion in machine and car engines shall be: SO<sub>2</sub>, NO<sub>2</sub>, CO, aliphatic hydrocarbons, soot and dust rising during the passage of cars and during earthworks, especially in long rainless periods. Since the construction site covers a relatively spacious area and the vehicles and construction machinery emitting the pollution shall not work on its entire surface area simultaneously (the works shall be performed section by section, according to their progress), one should not expect a significant influence of the works on the air pollution status beyond the Task area. One should expect local, short-term, increased concentration values of the abovementioned pollutants in the neighbourhood of operating vehicles and machines, which is a typical phenomenon of construction works and withdraws after completing the works.

At the operation stage, impact on the air in connection with road transportation (emission of pollutants to the air) shall be limited only to periodic passage of cars carrying technical supervision staff arriving to inspect the dam.

### **5.4. SOILS AND GROUNDS**

The impact exerted on the soils at the construction stage shall be first and foremost related to direct transformations of the earth surface (excavations), permanent exclusion of a part of the land from its previous use, changes to earth structure on temporarily occupied land (access roads, construction site backyards) and the possibility of soil pollution as a result of a petroleum derivative leak caused by a breakdown.

After completing the construction stage and performing correct soil reinstating, one should not expect significant changes in the soil-water conditions or soil productivity in the areas of temporary occupation.

## 5.5. SURFACE WATERS

### Biological elements of water quality

#### *Macrophytes, benthic macroinvertebrate fauna and phytobenthos*

Approx. 700 m long fragments of the present bed of the Bystrzyca Dusznicka river (including the mill race) shall be backfilled at the construction stage in relation to the necessity for relocating sections of the Bystrzyca Dusznicka river bed downstream and upstream of the dam body. In addition, another, approx. 300 m long section of the Bystrzyca Dusznicka river bed upstream of the dam shall be transformed into an oxbow lake and excluded from regular flow. New river bed sections shall be constructed in place of the liquidated sections, with a total length of approx. 450 m. The aquatic and shore flora (phytobenthos, macrophytes) as well as a part of the aquatic fauna (especially species of small size and limited locomotion abilities, including benthic macroinvertebrate fauna) present on that section shall be destroyed on sections planned to be liquidated. Additional losses of the resources of the abovementioned organisms shall be related to the planned works consisting in the reconstruction and regulation of further bed sections of the Bystrzyca Dusznicka river and the estuary section of the Cicha stream (in total over 2.1 km of the stream beds upstream and downstream of the dam).

At the operation stage, the groups of benthic macroinvertebrates, phytobenthos and macrophytes destroyed earlier shall be gradually restored (in regulated and newly constructed bed sections of the Bystrzyca Dusznicka river). In the case of phytobenthos, this process shall take several months, while in the case of macrobenthos and macrophytes it shall last up to 2-3 years.

Taking into account the fact that permanent transformations shall comprise only small part of the length of watercourses within the boundaries of the body of surface water (BSW) covered by the Task, it is estimated that the losses of the resources of macrophytes, phytobenthos and macroinvertebrates shall not be significant and shall not cause failure to achieve the environmental objective set for that BSW.

#### *Fish fauna*

At the construction stage, as in the case of the abovementioned benthic organisms and macrophytes, habitats and the food base of fish shall be destroyed on the liquidated bed sections of the Bystrzyca Dusznicka river and the status of habitats and the food base of fish on the sections subject to regulation shall deteriorate. This impact shall be of local nature, so it shall not constitute a hazard to the achievement of the environmental objective.

At the operation stage, the fish habitats destroyed or degraded earlier shall be gradually restored (in regulated and newly constructed river bed sections) in the periods described in the previous clause.

To sum up, the permanent negative impact on the abovementioned biological elements of waters at the construction stage shall concern relatively short (several hundred metre long) bed sections of the Bystrzyca Dusznicka river, which constitute a small part of the length of significant watercourses in the BSW. Morphological continuity of the river shall be preserved at the reservoir construction and operation stages. Reservoir construction and operation shall not cause deterioration of the BSW ecological status.

## **Hydromorphological elements of water quality**

### *Hydrological conditions*

Reservoir construction and functioning shall not influence the hydrological conditions of the Bystrzyca Dusznicka river in the scope of normal flows. At the operation stage, the reservoir shall reduce flows higher than 15 m<sup>3</sup>/s, corresponding to Q<sub>60%</sub> computational flow. Beside the planned limitation of flows higher than 15 m<sup>3</sup>/s, the designed reservoir shall not influence the hydrological regime of a/m streams.

### *Morphological conditions*

The liquidated bed sections of the Bystrzyca Dusznicka river (including the mill race), with a total length of approx. 700 m, shall be replaced with new beds (approx. length: 450 m) at the construction stage, which shall shorten the length of the abovementioned watercourses by approx. 250 m. The liquidated bed sections shall be replaced with a new bed the width of which shall be adjusted to the width of the natural river bed on that section but, in comparison with them, with a simplified structure of the bottom and banks. Additional simplification of the morphological structure of the river bed shall be connected with the planned works consisting in the reconstruction of the Bystrzyca Dusznicka river bed and the estuary section of the Cicha stream downstream of the dam (total length: approx. 450 m) and the sectional regulation of the Bystrzyca Dusznicka river bed upstream of the dam (total length: approx. 1,700 m) as well as the functioning of rubble settling tank, which shall limit the amount of rubble getting to the river section downstream of the dam. Nevertheless, physical transformations of the BSW which change the morphological conditions are not significant enough to cause lowering of the ecological status/potential assessment result for the entire BSW. In this respect, implementation of the planned Task does not cause a hazard to the achievement of WFD environmental objectives in the next planning cycle (the year of 2021). Reservoir construction shall not have a negative influence on continuity of the river, either.

## **Physical-chemical elements of water quality**

Periodic, short-term, insignificant impact on selected physical-chemical elements of water quality shall occur at the construction stage. It shall be related only to the suspension concentration increase in the water depths on the sections downstream of the performed regulation works in the Bystrzyca Dusznicka river bed. The described impact does not occur at the operation stage. The quantity of suspensions penetrating into the water shall be insignificant and shall not constitute a hazard to the achievement of the environmental objective.

## **Assessment of the impact on the BSW covered by the Task and on the neighbouring BSW**

The impact of the planned works (including the works performed in the Bystrzyca Dusznicka river bed) on the aquatic environment quality of *Bystrzyca Dusznicka from Kamienny Potok to Wielisławka* BSW, including the impact on its biological, physical-chemical and hydromorphological elements, shall not be significant. The planned Task shall not cause status deterioration of the BSW covered by the Task or the neighbouring BSW and does not constitute a hazard to WFD environmental objectives.

## 5.6. GROUNDWATER

### The influence on the groundwater status

Instances of short-term, transient, local lowering of the groundwater table may be caused by the works related to reservoir construction in connection with performing the necessary excavation drainages at the works stage. The possibility of contaminant transfer together with rain waters from the terrain surface to the groundwater largely depends on the layer thickness of low permeability formations insulating the aquifer. In general, after implementing the minimizing measures in the scope of limiting the possibility of water and soil pollution, the construction works shall not cause a negative impact on the quantitative or qualitative status (changes in water chemism and hydrodynamism) of groundwater.

At the operation stage, surface water damming in the reservoir shall be a periodic and short-term phenomenon. However, even short-term water damming in the reservoir may influence groundwater by elevating the groundwater drainage base in the reservoir basin area and by periodically changing the hydrogeological conditions in the immediate vicinity of the reservoir. Such changes shall not affect groundwater levels on lands located downstream of the dam due to the presence of dam body sealing from upstream face.

### Assessment of the impact on the achievement of BGW environmental objectives

The planned Task, consisting in the construction of a dry flood control reservoir damming the water only in flood periods, shall not infringe WFD objectives, i.e. shall not cause deterioration of the groundwater quantitative status or chemical status within the boundaries of the body of ground water (BGW) covered by the Task.

## 5.7. ACOUSTIC CLIMATE

The anticipated scope of works shall be related to periodic noise emission at the construction stage. The sources of noise shall be the work of individual construction machines and the traffic of vehicles, including trucks. Given that the nearest residential buildings are situated approx. 80 m away from the works performance locations, there is a risk that the noise limits shall be exceeded in several households located the closest to the works performance locations. Such impacts shall be minimized by limiting the works performance time to daytime and by the Contractor's care for the technical state of machines and devices operating on the construction site.

After completing the construction stage, reservoir operation is not related to noise emission.

## 5.8. BIOTIC NATURE

### 5.8.1. Protected natural habitats and species

#### Natural habitats from Annex I to the *Habitats Directive*

Implementation of the planned Task shall cause a negative impact on 5 types of natural habitats occurring in the designed reservoir area. They are:

- 3260 – watercourses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation. In relation to Task implementation, it is necessary to remove 2 ha of the surface area of this habitat (i.e. approx. 60% of 3.3 ha of this habitat determined here).

- 6430 – mountain herbs (*Adenostylion alliariae*) and riparian herb growths (*Convolutetalia sepium*). In relation to Task implementation, it is necessary to remove the whole surface area of this habitat (i.e. 1.05 ha), but, due to scant surface area within the Task area, such an impact shall not be significant on the regional scale.
- 9170 – *Galio-Carpinetum* and *Tilio-Carpinetum* oak-hornbeam forests. In relation to Task implementation, it is necessary to remove 0.7 ha of the surface area of this habitat (i.e. approx. 29% of 2.4 ha of this habitat determined here).
- \*9180 – *Tilio-Acerion* forests of slopes, screes and ravines (*Tilio-platyphyllis-Acerion pseudoplatani*). In relation to Task implementation, it is necessary to remove 0.5 ha of the surface area of this habitat (i.e. approx. 7% of 7.3 ha of this habitat determined here).
- \*91E0 – riparian mixed forests of willow, poplar, alder and ash tree (*Salicetum albobfragilis*, *Populetum albae*, *Alnenion glutinoso-incanae*) as well as alder forests on percolating mires. In relation to Task implementation, it is necessary to remove 1.45 ha of the surface area of this habitat (i.e. approx. 29% of 5.0 ha of this habitat determined here).

This impact shall be of permanent nature (the liquidated patches of habitat shall not be restored in those locations after works completion) and its joint influence shall be reduced i.a. owing to the planned planting of trees and shrubs in determined locations (see items 118-120 in Appendix 1 to the EMP), resulting from the conditions of the environmental decision. Due to relatively small area of the natural habitats within the Task area, such an impact shall not be significant on the regional scale.

### **Protected species of plants**

Occurrence of 20 plant species considered as rare (including 15 species protected in Poland) was determined in the area of the planned Task. The abovementioned 7 plant species shall be affected by a negative influence of the planned Task at the construction stage, including protected plants: True oxlip *Primula elatior*, Giant bellflower *Campanula latifolia*, Common snowdrop *Galanthus nivalis*, Wild garlic *Allium ursinum*, Autumn crocus *Colchicum autumnale* and Homalia moss *Homalia trichomanoides*.

The loss of sites of the abovementioned protected plant species shall not be of significant nature. The population resources of the abovementioned protected species shall not be significantly reduced on a regional or local scale. The protected species determined here are locally frequent or relatively frequent and are not significantly endangered.

### **Protected species of animals**

#### *Fish and lampreys*

The implementation of the planned Task shall cause a negative impact on all species of fish inventoried within its area, most importantly in connection with the planned relocation and regulation of the Bystrzyca Dusznicka river bed sections (loss or periodic deterioration of habitat quality, periodic deterioration of the food base). The effects of this impact shall be limited owing to a range of mitigation measures concerning i.a. reducing the impact on aquatic environment for duration of works and maintaining the conditions for migration of aquatic organisms.

### *Amphibians and reptiles*

The planned construction works may pose a danger of trapping amphibians or reptiles in performed excavations. Vehicle and machine traffic is also a hazard as it may deteriorate the conditions of their living and breeding or pose a direct hazard to the life of their specimens. Potential pollution of the aquatic-soil environment may also be a danger to this group of animals. All the above impact is of potential nature and performing the works in accordance with the conditions determined in Appendix 1 to the EMP shall significantly reduce the risk of its occurrence.

### *Birds*

The main forms of the negative impact of the planned Task on the bird fauna include the following:

- destruction of potential breeding grounds (groups of trees and shrubs as well as patches of herb growths) and feeding grounds – this impact shall not cause a significant influence on the populations of individual species due to the availability of other areas of similar nature in the surroundings of the construction site;
- increased penetration of the area by humans as well as intense vehicle and construction machine traffic (scaring and disturbing of specimens) – this impact is local, short-term and limited to the period and time of works performance.

### *Flightless mammals*

In the case of species of small land mammals, the planned construction works pose hazards analogous to those mentioned in the case of amphibians and reptiles (see above); mitigation measures leading to a significant reduction of the unfavourable effects of this impact are analogous.

### *Bats*

The hazards to this group of animals are analogous to those in the case of birds, but the bats living in tree hollows are additionally more vulnerable to death during tree felling. This type of hazards was minimized owing to appropriate mitigation measures described in Appendix 1 to the EMP.

## **5.8.2. Protected areas and objects**

### **Natura 2000 sites**

The implementation of the planned Task (both at the construction and operation stages) does not cause a negative impact on Natura 2000 sites located in its surroundings (lack of a negative influence on Natura 2000 site integrity or network coherence).

### **Other protected areas and objects**

The implementation of the planned Task (both at the construction and operation stages) does not cause a negative impact on protected areas and objects located in its surroundings.



## **5.9. CULTURAL MONUMENTS**

Implementation of the planned Task – at the construction and operation stage – shall not adversely affect the objects of cultural value (including the bridge over the Bystrzyca Dusznicka river and the archaeological sites in the reservoir basin). Due to the presence of the above-mentioned objects, the following obligations were imposed as part of mitigating measures: obtaining a heritage conservator's opinion in advance, ensuring archaeological supervision during the works and observing specific procedures related to possible discoveries of monuments (items 115-117 in Appendix 1 to the EMP).

## **5.10. POPULATION AND MATERIAL GOODS**

In connection with implementation of the planned Task, it shall be necessary to introduce i.a. the following changes to the existing infrastructural objects: relocation of a medium voltage 20 kV power line, reconstruction of low voltage power lines, reconstruction of the water networks and the gas network (approx. 100 m long) and demolition of two utility buildings downstream of the dam.

The issues related to land purchase or changing land use, as well as possible problems connected with the influence of reservoir construction and operation on temporary occupation areas and their surroundings, are discussed in detail in the *Land Acquisition and Resettlement Action Plan* (LA&RAP) for the Task in question.

The potential negative influence on material goods at the construction stage is related to using the existing road network as access roads to the construction site. Introduction of mitigation measures in this scope shall enable limiting this impact category.

## **5.11. HUMAN HEALTH AND SAFETY**

The implementation of the planned Task may be related to the following impact on human health and safety:

- Increase of air pollution emission  
At the construction stage, the pollution level of atmospheric air may locally and periodically increase in connection with using vehicles and construction machinery (emission of exhaust fumes). Since this impact is dispersed, local and not too intense, and owing to the distance between the construction site and the nearest buildings, the impact should not cause significant effects in relation to the health of the Contractor's staff or residents from the vicinity (see also chapter 5.3).
- Increased noise emission  
At the construction stage, the noise level related to performing the works and using vehicles and construction machinery may locally and periodically increase. Taking into account the circumstances discussed in chapter 5.7, this phenomenon should not cause significant effects in relation to the health of the Contractor's staff or residents from the vicinity.
- Petroleum derivative pollution hazard  
Bad organization of works or failure to observe appropriate standards could lead to water and soil pollution with fuels at the construction stage, which could constitute a direct or indirect hazard to the health of the Contractor's staff or residents from the vicinity. To prevent such hazards, Appendix 1 to the EMP introduces a number of conditions aimed at

limiting the risk of petroleum derivative pollution at the construction stage (see also chapter 6.11).

- The possibility of a reservoir breakdown or catastrophe at the operation stage  
The issues related to the potential influence of a reservoir breakdown or catastrophe on the health and safety of the residents of towns and villages located downstream of the dam are discussed in chapter 5.12.

## **5.12. SPECIAL HAZARDS (CRITICAL AND EMERGENCY SITUATIONS)**

The implementation of the planned Task is related to the possibility of occurrence of the following critical or emergency situations which could cause special environmental hazards:

- Uncontrolled emission (leak) of petroleum derivatives  
An emergency situation may take place at the construction stage, resulting in a leak of petroleum derivatives from vehicles, construction machinery, tanks etc. polluting surface waters or the earth surface (including soil). The risk and effects of this type of events are limited by appropriate organization of the construction site backyard, care for the appropriate technical condition of vehicles, machines and equipment used on the construction site as well as, if those events do occur, strict observance of procedures concerning emergency and critical situations, described in Appendix 1 to the EMP.
- Fire or explosion of flammable substances  
An emergency situation may take place at the construction stage in relation to a fire (e.g. as a result of an equipment breakdown, staff negligence, an explosion of flammable substances, a lightning strike etc.). The risk and effects of this type of events are limited by strict observance of OSH provisions, appropriate organization of the construction site backyard, care for the appropriate technical condition of vehicles, machines and equipment used on the construction site as well as, if those events do occur, strict observance of procedures concerning emergency and critical situations, described in Appendix 1 to the EMP.
- Finding unexploded bombs or unfired rounds  
Hazardous materials of military origin, such as unexploded bombs or unfired rounds, may be found at the construction stage. Potential hazards related to this type of situations are limited by pre-emptive sapper examination of the construction site before commencing the works, ensuring sapper supervision over the works on a running basis as well as, if such materials are found, strict observance of procedures concerning situations related to the presence of unexploded bombs or unfired rounds, described in Appendix 1 to the EMP.
- Sudden freshets, flood  
A sudden water level increase in the Bystrzyca Dusznicka river on the construction site or a flood may take place at the construction stage, threatening the staff's health and life and causing material losses on the construction site. In order to minimize the possible effects of this type of events, the Contractor shall take into account the flooding risk when organizing the construction site backyard and the remaining part of the works area as well as develop a *Construction site flood management plan* and strictly observe the conditions contained in it.

- The possibility of a reservoir breakdown or catastrophe at the operation stage  
The operation of a dry flood control reservoir is related to a potential risk of water spillway above the dam crest or a dam break, e.g. as a result of long-term torrential precipitation, a breakdown of relief devices and other causes. The occurrence risk of this type of catastrophes is limited by specific design and technical solutions applied in the planned reservoir, including i.a.: adapting the reservoir to the transfer of so-called 500-year water (in accordance with the regulations for III validity class of hydraulic structures), applying an anti-filtering membrane in and under the dam body, equipping the dam with two types of relief devices (sluices and spillways), equipping the reservoir with control and measuring instruments. Given the abovementioned protections and the fact that the reservoir design takes into account the hydrological data characterizing the scale of flows in the watercourses of this area during calculation periods, one can state that the discussed hazard is very much of a potential nature and its probability of occurrence is slight.

## **6. DESCRIPTION OF MITIGATION MEASURES**

In order to limit the negative environmental impact of the planned Task, Appendix 1 to the EMP defines a set of mitigation measures binding on the Task Contractor. Those measures were developed on the basis of the conditions contained in the binding administrative decisions in the scope of environmental protection issued for the Task, which were supplemented with additional conditions determined at the EMP preparation stage. A list of main categories of the mitigation measures is presented below, dividing them into the environment components discussed in chapters 4 and 5 of the EMP.

### **6.1. EARTH SURFACE AND LANDSCAPE**

The primary forms of the negative impact of the planned Task on earth surface and landscape are presented in chapter 5.1.

To limit that impact, Appendix 1 to the EMP introduces mitigation measures aimed i.a. at:

- limiting the influence related to land occupations on the status of earth surface and landscape (item 3, 4, 6, 63 and 82);
- limiting the landscape value losses related to tree and shrub felling (item 118, 119 and 120).

### **6.2. CLIMATE**

Due to lack of a negative impact on the climate (see the description in chapter 5.2), it was considered as unnecessary to introduce mitigation measures.

### **6.3. ATMOSPHERIC AIR**

The primary forms of the negative impact of the planned Task on atmospheric air are presented in chapter 5.3.

To limit that impact, Appendix 1 to the EMP introduces mitigation measures aimed i.a. at:

- limiting the electrical energy consumption at the works stage (item 96);
- limiting air pollution with exhaust fumes, dusts etc. (item 97 and 98).

### **6.4. SOILS AND GROUNDS**

The primary forms of the negative impact of the planned Task on soils and grounds are presented in chapter 5.4.

To limit that impact, Appendix 1 to the EMP introduces mitigation measures aimed i.a. at:

- limiting the soil resource losses related to land occupations (item 3, 4, 5, 63, 79 and 82);
- limiting the topsoil layer loss (item 13 and 63);
- ensuring an appropriate chemical quality of grounds in the area of works (item 7 and 9);
- limiting the ground pollution risk at the works stage (item 5, 6, 78, 79, 82, 83, 84, 85, 86, 88, 89, 91, 92, 101, 102, 103 and 104).

## **6.5. SURFACE WATERS**

The primary forms of the negative impact of the planned Task on surface waters are presented in chapter 5.5.

To limit that impact, Appendix 1 to the EMP introduces mitigation measures aimed i.a. at:

- limiting the water pollution risk at the works stage (item 5, 6, 47, 48, 49, 50, 51, 54, 78, 79, 81, 82, 83, 84, 85, 86, 88, 89, 91, 92, 101, 102, 103 and 104);
- ensuring an appropriate chemical quality of grounds in the area of works (item 7 and 9);
- limiting the negative influence on the biological elements of water quality (item 41, 42, 43, 44, 47, 48, 49, 50, 51, 54 and 55).

## **6.6. GROUNDWATER**

Due to lack of a significant negative impact on groundwater (see the description in chapter 5.6), it was considered as unnecessary to introduce mitigation measures. Groundwater protection is indirectly related to a part of the mitigation measures listed in chapter 6.5 concerning protection of surface waters against pollution.

## **6.7. ACOUSTIC CLIMATE**

The primary forms of the negative impact of the planned Task on atmospheric air are presented in chapter 5.7.

To limit that impact, Appendix 1 to the EMP introduces mitigation measures aimed at:

- limiting the noise generated at the works stage (item 93, 94, 95 and 96).

## **6.8. BIOTIC NATURE**

The primary forms of the negative impact of the planned Task on biotic nature resources are presented in chapter 5.8.

To limit that impact, Appendix 1 to the EMP introduces mitigation measures aimed i.a. at:

- limiting the natural resource losses related to land occupations (item 5, 6, 13, 27, 63, 83, 118, 119, 120, 121, 122 and 124);
- limiting the natural resource losses related to the felling of trees and shrubs (item 14, 15, 16, 17, 118, 119, 120, 122, 123 and 124);
- eliminating or limiting the natural resource losses related to accidental deaths of specimens of protected species on the land (item 27, 28, 30, 31, 33, 34, 35, 36, 37 and 39);
- eliminating or limiting the natural resource losses related to accidental deaths of specimens of protected species in the aquatic environment (item 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 54 and 55);
- eliminating or limiting the influence of works implementation on the breeding results of protected animal species (item 14, 15, 18, 21, 27, 39, 40, 42, 44, 45, 46, 47, 48, 49, 50, 51, 54 and 55);
- eliminating or limiting the influence of works implementation on the migration conditions of protected animal species (item 36 and 37);

- limiting the influence of works implementation on the status of natural habitats and habitats of protected species on the construction site and in its immediate vicinity (item 27, 28, 29, 39, 40, 46, 63, 118, 119, 120, 121, 122, 123 and 124);
- limiting the influence of works implementation on the status of trees and shrubs not anticipated for felling (item 20, 21, 22, 23, 24, 25, 26 and 39);
- eliminating or limiting the influence of works implementation on the spreading of invasive plant species of foreign origin (item 38).

## **6.9. CULTURAL MONUMENTS**

In order to prevent a negative influence of Task implementation on cultural resources, (see the description in chapter 5.9), Appendix 1 to the EMP introduces three mitigation measures aimed at ensuring the arrangement of works performance conditions with a relevant heritage conservator and implementing appropriate procedures in the case of discovering movable monuments or archaeological sites at the works stage (item 115, 116 and 117).

## **6.10. POPULATION AND MATERIAL GOODS**

In accordance with the information provided in chapter 5.10, the issues related to land purchase or changing land use, as well as possible problems connected with the influence of reservoir construction and operation on temporary occupation areas and their surroundings, are discussed in detail in the *Land Acquisition and Resettlement Action Plan (LA&RAP)* for the Task in question. The impact related to using the existing road network as access roads to the construction site shall be limited by implementing the conditions of access road use, described in item 8 of Appendix 1 to the EMP.

## **6.11. HUMAN HEALTH AND SAFETY**

The primary forms of the negative impact of the planned Task on human health and safety are presented in chapters 5.11 and 5.12.

To limit that impact, Appendix 1 to the EMP introduces mitigation measures aimed i.a. at:

- limiting the influence of the planned Task on the sanitary status of atmospheric air (listed in chapter 6.3);
- limiting the influence of the planned Task on the acoustic climate (listed in chapter 6.7);
- eliminating or limiting the risk of chemical pollution of water and ground at the works stage (listed in chapters 6.4 and 6.5);
- ensuring safety on the construction site and in its surroundings (item 106, 107, 108, 109, 110 and 111);
- ensuring appropriate response in situations of special hazards (item 112, 113 and 114).

## **6.12. SPECIAL HAZARDS (CRITICAL AND EMERGENCY SITUATIONS)**

The primary types of special hazards (with characteristics of a critical situation) that may potentially occur in connection with Task implementation are presented in chapter 5.12.

To limit the possible effects of this type of events, Appendix 1 to the EMP introduces mitigation measures aimed i.a. at:

- eliminating or limiting the risk of chemical pollution of water and ground at the works stage (listed in chapters 6.4 and 6.5);
- ensuring safety on the construction site and in its surroundings (item 106, 107, 108 and 109);
- ensuring appropriate response in situations of special hazards (item 112, 113 and 114).

## **6.13. REQUIREMENTS IN THE SCOPE OF DEVELOPMENT AND IMPLEMENTATION OF THE CONTRACTOR'S SELECTED DOCUMENTS**

In order to ensure appropriate organization of works performance and implement correctly the conditions determined in Appendix 1 and 2 to the Environmental Management Plan, the Contractor is obliged to develop the following documents, obtain the Engineer's approval for them and then implement them:

- 1) A construction site organization design, which should include i.a. the following elements:
  - backyard location;
  - backyard management;
  - backyard protection;
  - access roads;
  - environmental protection in the backyard.
- 2) A waste management plan, which should include i.a. the following elements:
  - found and anticipated types and quantities of waste;
  - manners of preventing the negative environmental impact of the waste;
  - the waste management manner taking into account collection, transportation, recovery and treatment;
  - the type of generated waste and the manner of its storage.
- 3) Quality assurance plans for individual categories of works and other types of the Contractor's measures (as needed, including as required by the Engineer), which should contain i.a.:
  - information about the planned organization of performing a given category of works or measures;
  - information about the conditions of implementing a given category of works or measures contained in the EMP;
  - information about other possible manners of preventing the negative environmental impact of a given category of works.

- 4) A construction site flood management plan, which should include i.a. the following elements:
  - monitoring of the hydrological-meteorological situation;
  - conditions of passing freshet flows in the works performance period;
  - rules of the Contractor's staff work during the flooding risk period;
  - primary obligations of key members of the company flood management team;
  - a list of officers during the flooding risk period;
  - a list of equipment and means of transport needed to conduct rescue actions.
- 5) A Safety and Health Protection Plan, which should include i.a. the following elements:
  - indication of plot/site development elements which could pose a hazard to human safety and health;
  - information about the hazards anticipated during the implementation of construction works, specifying the scale, types, place and time of the hazards, including the relation to the natural environment;
  - information about designating and marking the construction works implementation location in a manner appropriate for the hazard type;
  - information about the manner of instructing the employees before commencing the implementation of particularly dangerous works;
  - specification of the manner of storing and moving hazardous materials, products, substances and preparations on the construction site;
  - indication of technical and organizational means preventing the dangers stemming from the performance of construction works in zones of special hazard to health or in their neighbourhood, including means ensuring safe and effective communication enabling quick evacuation in case of a fire, breakdown or another hazard;
  - indication of the storage location of construction documentation and documents necessary for correct operation of machines and other technical devices.

When developing the abovementioned documents, the Contractor shall take into account relevant Operational Policies and Bank Procedures of the World Bank concerning health protection, environmental protection and safety rules.

#### **6.14. MEASURES AT THE OPERATION STAGE**

A part of the mitigation measures specified in the EMP goes beyond the construction stage and shall also be implemented in the reservoir operation period. Those measures include i.a.:

- ensuring appropriate rules for use and maintenance of the reservoir  
(item 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75 and 76 in Appendix 1 to the EMP);
- maintenance of tree and shrub plantings on a running basis  
(item 63, 118, 119 and 120 in Appendix 1 to the EMP and item 139 in Appendix 2 to the EMP);
- performance of maintenance and possible repairs of nest boxes and platforms for birds on a running basis  
(in relation to the content of item 121, 122 and 123 in Appendix 1 to the EMP as well as item 141 and 142 in Appendix 2 to the EMP);



- performance of maintenance and possible repairs of boxes for bats on a running basis (in relation to the content of item 124 in Appendix 1 to the EMP and item 143 in Appendix 2 to the EMP);
- performance of measures aimed at ensuring efficiency of the facilities supporting migration of fish (in relation to the content of item 144 in Appendix 2 to the EMP);

In the Defect Notification Period, the Contractor is the party responsible for implementation of the abovementioned measures (in the case of the last two measures – together with the Investor). After Contract completion, the Investor is responsible for implementation of all of the abovementioned measures.

## **7. DESCRIPTION OF MONITORING MEASURES**

Appendix 2 to the EMP defines a set of monitoring measures binding on the Task Contractor. Those measures were developed on the basis of the conditions contained in the binding administrative decisions issued for the Task, which were supplemented with additional conditions determined at the EMP preparation stage.

The monitoring measures listed in Appendix 2 to the EMP belong to three main categories:

- monitoring of implementation of the mitigation measures listed in Appendix 1 to the EMP (item 1-137 in Appendix 2 to the EMP);
- monitoring of the status of selected elements of the environment defined in the decision on the environmental conditions (item 138-144 in Appendix 2 to the EMP);
- monitoring of implementation of the abovementioned measures monitoring the status of selected elements of the environment (item 145 in Appendix 2 to the EMP).

## 8. PUBLIC CONSULTATIONS

### 8.1. PUBLIC CONSULTATIONS FOR THE *ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK FOR THE OVFMP (2015)*

The draft of the document entitled *Environmental and Social Management Framework (ESMF)* for the OVFM Project (including Component 2, which covers the present Task) was subject to the procedure of public consultations conducted in accordance with *OP 4.01* Operational Policy of the World Bank. Their aim was to enable the public to familiarize itself with the content of that document and ensure the possibility of submitting remarks, questions and motions concerning the content.

The documentation of the public consultation process for the abovementioned document is available on the website of the Odra-Vistula Flood Management Project Coordination Unit<sup>1</sup>.

### 8.2. PUBLIC CONSULTATIONS AT THE STAGE OF ENVIRONMENTAL PROCEDURES FOR THE TASK (2013-2016)

At the stage of issuing the decision on the environmental conditions for the undertaking consisting in the construction of “Szalejów Górny” – a dry flood control reservoir on the Bystrzyca Dusznicka river (see chapter 3.5), the consultations with the public’s participation were conducted by a relevant local body issuing the decision, i.e. the Regional Director for Environmental Protection in Wrocław.

The proceedings concerning the issue of the decision on the environmental conditions commenced by publishing an announcement of November 20<sup>th</sup>, 2013 of the Regional Director for Environmental Protection in Wrocław (ref. No.: WOŚ.4233.8.2013.ŁCK.3). After completing the necessary procedures, the Regional Director for Environmental Protection in Wrocław issued an announcement of March 12<sup>th</sup>, 2015 (ref. No.: WOŚ.4233.8.2013.ŁCK.33), in which it published the required information concerning the planned undertaking. That announcement was placed on the notice board and the website of the Regional Directorate for Environmental Protection in Wrocław and on the notice board of the Kłodzko Municipality Office and the Kłodzko City Office as well as in the local press.

Within the deadline provided by the law, the conducting body received no remarks or motions related to the undertaking in question. After the expiration of the above deadline, remarks and motions concerning the undertaking in question were submitted by representatives of the local community. Having examined the case, the Regional Director for Environmental Protection in Wrocław sent a letter of August 3<sup>rd</sup>, 2015 (ref. No: WOŚ.4233.8.2013.ŁCK.46), in which he referred to the submitted remarks and motions in detail. The representatives of the local community submitted no remarks concerning the provided explanations.

On September 30<sup>th</sup>, 2015, the Regional Director for Environmental Protection in Wrocław issued a decision on the environmental conditions for the construction of “Szalejów Górny” reservoir (ref. No.: WOŚ.4233.8.2013.ŁCK.54). That decision was published via an announcement.

Two weeks after issuing the abovementioned decision, in October 2015, an appeal was lodged with the General Director for Environmental Protection. The General Director for Environ-

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<sup>1</sup> On the website: [http://www.odrapcu.pl/popdow\\_dokumenty\\_RPZSiSS.html](http://www.odrapcu.pl/popdow_dokumenty_RPZSiSS.html).

mental Protection examined the case and, on May 16<sup>th</sup>, 2016, issued a decision (ref. No.: DOOŚoaII.4200.24.2015.EK.7) maintaining in force the abovementioned decision of the Regional Director for Environmental Protection in Wrocław and introducing a number of changes in its sentence. The decision of the General Director for Environmental Protection (GDOŚ) was published via an announcement.

### 8.3. PUBLIC CONSULTATIONS FOR THE EMP (2017)

The draft of the present document was subject to the public consultation procedure conducted in accordance with the Operational Policies of the World Bank (*OP 4.01*).

After preparing the draft EMP and obtaining – upon its basis – the World Bank’s acceptance (so-called “OK”) for commencing the publication procedure, on the 5<sup>th</sup> of June 2017 a digital version of the EMP was published at publicly accessible websites: website of the Regional Authorities for Water Management (RZGW) in Wrocław – <http://wroclaw.rzgw.gov.pl> (Fig. 2) and website of the OVFMP Project Coordination Unit – <http://www.odrapcu.pl> (Fig. 3), and a hard copy was made available in the office of the RZGW in Wrocław (Wrocław, 34. Norwida Street), in the office of the RZGW in Wrocław, Inspectorate in Kłodzko (Kłodzko, 1. Kościuszki Street), in the Municipality Office of Kłodzko (Kłodzko, 8A. Okrzei Street) and in the office of the Consultant of the RZGW in Wrocław (Wrocław, 9. Szymanowskiego Street).

Detailed information on the access to this document and on the possibility of informing conclusions and comments (along with indication of detailed contact data: e-mail address, snail mail addresses, where the project document was made accessible, office opening hours) were publicly informed in the announcement (Fig. 4) placed in the following locations:

- websites of the RZGW in Wrocław – <http://wroclaw.rzgw.gov.pl> (Fig. 5), websites of the OVFMP PCU – <http://www.odrapcu.pl> (Fig. 3) and websites of the Municipality Office of Kłodzko – <http://www.gmina.klodzko.pl> (Fig. 6);
- in local press – local supplement to *Gazeta Wyborcza* (Fig. 7) and *Gazeta Kłodzka* (Fig. 8);
- on information boards in: RZGW in Wrocław, RZGW in Wrocław – Inspectorate in Kłodzko, Municipality Office of Kłodzko, and localities of Szalejów Dolny and Szalejów Górny.

The aforementioned announcement also included information on the possibility of taking part in a meeting and in a discussion opened for interested people, organizations and institutions, which was planned for the 21<sup>st</sup> of June 2017 (including information on a place, date and time of the meeting).

The publication was completed after 10 working days (excluding the 16<sup>th</sup> of June and holidays), i.e. on the 20<sup>th</sup> of June 2017. During the publication period the visits of persons familiarizing themselves with the available draft EMP were not observed. Until the completion of works on this document neither additional remarks nor questions were provided in relation to contents of the draft EMP.

After completion of the publication, an opened meeting for interested people, organizations and institutions was held on the 21<sup>st</sup> of June 2017 at 4:30 p.m. in the Municipality Office of Kłodzko (Kłodzko, 8A. Okrzei Street), where a public presentation of and discussion on the draft EMP were organized (Fig. 9). 12 people participated in the meeting, including: the rep-

representatives of local community and authorities, PCU, RZGW in Wrocław, and the Consultant. The meeting lasted for about 1 hour and the following questions were asked:

1) *What is the planned time for commencement of the construction works under the Task?*

With reference to the question it was clarified that in accordance with assumed schedules the Contractor should be selected in the 3<sup>rd</sup> quarter of 2017, and the construction works should be started in the 4<sup>th</sup> quarter of 2017.

2) *Will the farmers, working currently within areas of the future reservoir, manage to collect crop of this year's sowing in this case?*

With reference to the question it was clarified that in accordance with the aforementioned information on assumed schedules for implementation of the Task, local farmers should not have any problems with collection of crop of this year's sowing.

3) *What is the distance between the housing and the power line to be redeveloped?*

With reference to the question it was clarified that this distance would be variable for different buildings, depending on their detailed location. Design documents on planned redevelopment for the power line were presented to meeting attendees (including cartographic documentation), and they were allowed to verify the distance for particular buildings.

4) *Which areas will be flooded during operations of the reservoir?*

With reference to the question it was clarified that those areas were marked on e.g. a map given in Appendix 6 to the EMP, which was shown during the today's presentation. Design documents showing detailed information on the planned reach of temporary flooding during operations of the reservoir were presented to meeting attendees (including cartographic documentation).

5) *Where will administration buildings of the reservoir be located?*

With reference to the question it was clarified that those buildings were marked on e.g. a map given in Appendix 6 to the EMP, which was shown during the today's presentation. Design documents showing detailed information on the planned location for reservoir's administration buildings were presented to meeting attendees (including cartographic documentation).

6) *Why was the reservoir designed as a dry reservoir, and not as a reservoir filled with water, which would provide additional economic benefits for the local community?*

With reference to the question it was clarified that a strategic aim for all actions under the OVFMP Project is the flood protection for land within selected areas of the Odra and Vistula river basins. In case of such mountainous areas as Kłodzka Dale, with heavy and rapid (i.e. hard to be forecasted) rainfall, dry reservoirs provide higher flood protection level for areas located downstream of the reservoir (maximum flood contingency capacity) and the highest protection level for the flood protection structure itself (it is not necessary to discharge water from the reservoir in advance in case of a rapid rainfall hazard).

7) *Are any works planned on the River Cicha (former name for Rogoźnica) within the framework of Task implementation?*

With reference to the question it was clarified that within the framework of the subject Task no actions are planned on this river, except for protecting a short estuary section.

At the meeting its attendees also asked questions concerning the matters connected with resettlement and compensation. The persons running the meeting provided short explanations regarding the above issues, noting that such issues had been the subject of separate public consultation related to the *Land Acquisition and Resettlement Action Plan (LA&RAP)*.

Considering the character of aforementioned questions, which were asked during the meeting, and the lack of remarks and conclusions of the public during the publication of the draft EMP, the authors of the EMP for the *Task 2A.2/1* stated that its contents do not require modification resulting from the publication procedure. After supplementation of the document with a memo on the publication procedure the final EMP will be submitted to the World Bank in order to obtain the final acceptance clause, i.e. “no objection”

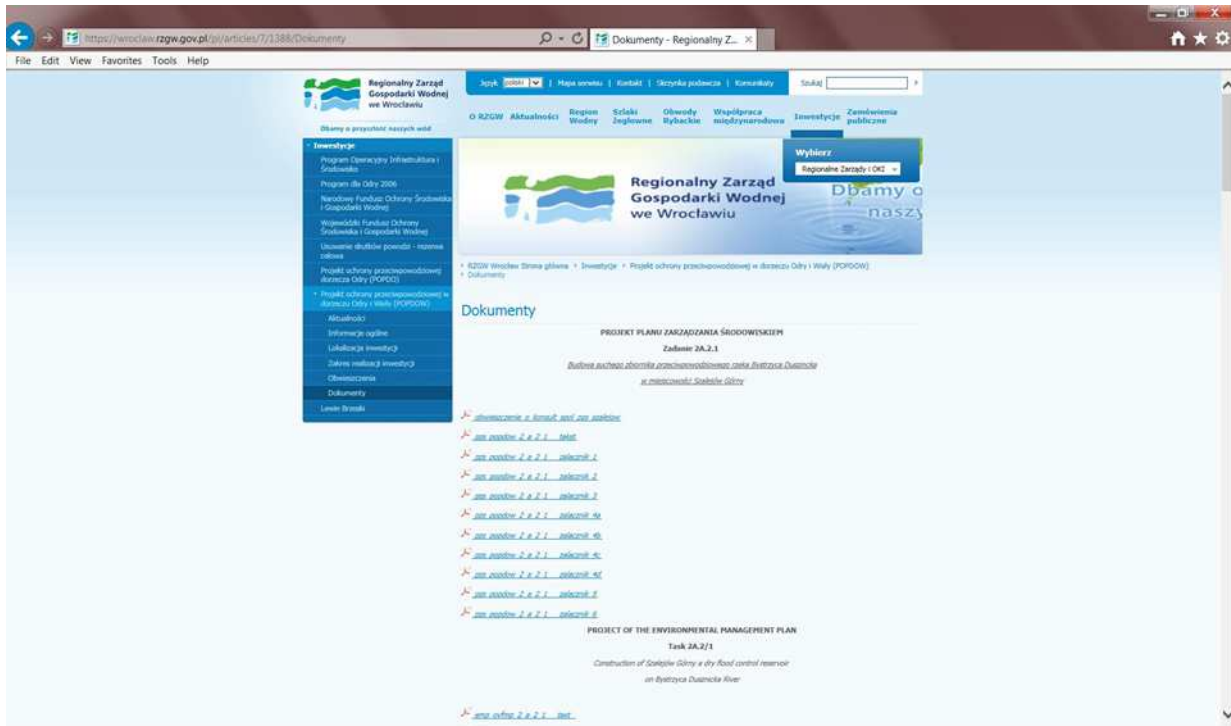


Figure 2. Digital version of the draft EMP published at the website of the RZGW in Wrocław.

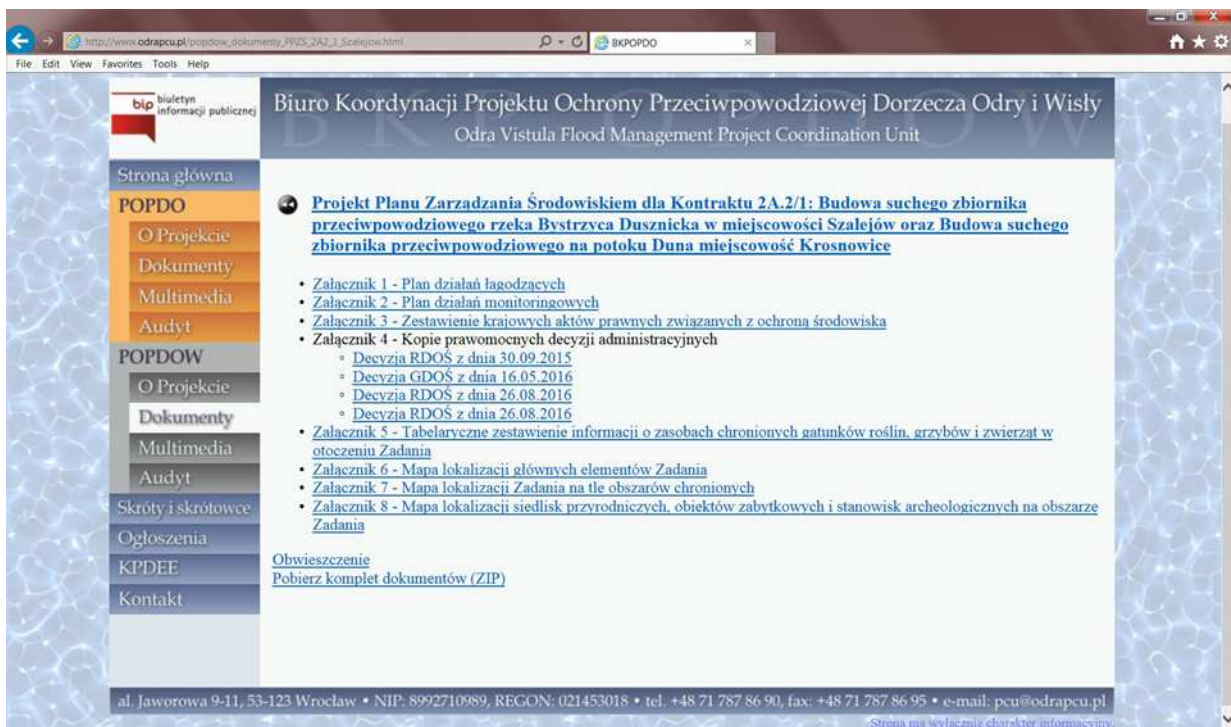


Figure 3. Digital version of the draft EMP published at the website of the OVFMP Project Coordination Unit.

## OBWIESZCZENIE

Zgodnie z wymaganiami Banku Światowego (polityka operacyjna OP 4.01), instytucji współfinansującej realizację *Projektu ochrony przeciwpowodziowej w dorzeczu Odry i Wisły*,

### podaje się do publicznej wiadomości, co następuje:

Regionalny Zarząd Gospodarki Wodnej we Wrocławiu (RZGW Wrocław) udostępnił do wglądu wszystkim zainteresowanym osobom i instytucjom PROJEKT PLANU ZARZĄDZANIA ŚRODOWISKIEM dla Komponentu 2 Ochrona przed powodzią Kotliny Kłodzkiej, Podkomponent 2A Ochrona czynna, Zadanie 2A.2/1 Budowa suchego zbiornika przeciwpowodziowego rzeka Bystrzyca Dusznicka w miejscowości Szalejów (nazywany dalej PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM).

Każdy zainteresowany może:

A) zapoznać się z PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM od dnia 05 czerwca 2017 r. do dnia 20 czerwca 2017 r włącznie (10 dni roboczych, z wyłączeniem dnia 16 czerwca 2017 r. oraz dni świątecznych), w siedzibie:

- Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu, ul. C.K. Norwida 34, 50-950 Wrocław w dniach roboczych od godziny 8:00 do 14:00.
- Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu, Inspektorat w Kłodzku, ul. Kościuszki 1, 57-300 Kłodzko w dniach roboczych od godziny 8:00 do 14:00.
- Urzędu Gminy Kłodzko, ul. Okrzei 8A, 57-300 Kłodzko, pokój nr 414 w dniach roboczych od godziny 7:30 do 15:30.
- Konsultanta RZGW we Wrocławiu, ul. Szymanowskiego 9, 51-609 Wrocław w dniach roboczych od godziny 9:00 do 15:00.

lub poprzez stronę internetową:

- Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu pod adresem: [www.wroclaw.rzgw.gov.pl](http://www.wroclaw.rzgw.gov.pl)
- Urzędu Gminy Kłodzko pod adresem: [www.gmina.klodzko.pl](http://www.gmina.klodzko.pl)
- Biura Koordynacji Projektu pod adresem – [www.odrapcu.pl](http://www.odrapcu.pl),

B) składać uwagi i wnioski odnośnie PROJEKTU PLANU ZARZĄDZANIA ŚRODOWISKIEM w formie pisemnej oraz ustnej do protokołu pod w/w adresami lub w formie elektronicznej na adres e-mail: [oppkk@wroclaw.rzgw.gov.pl](mailto:oppkk@wroclaw.rzgw.gov.pl) w dniach od 05 czerwca 2017 r. do 20 czerwca 2017 r. (z wyłączeniem dnia 16 czerwca 2017 r. oraz dni świątecznych).

Instytucją właściwą do rozpatrzenia uwag i wniosków jest Regionalny Zarząd Gospodarki Wodnej we Wrocławiu.

Po okresie 10 dni roboczych udostępnienia do wglądu dokumentu (od 05 czerwca 2017 r. do 20 czerwca 2017 r.), w dniu 21 czerwca 2017 r. o godzinie 16:30 w Urzędzie Gminy Kłodzko, ul. Okrzei 8A, 57-300 Kłodzko w Sali 106 (parter), odbędzie się spotkanie otwarte dla wszystkich zainteresowanych, na którym przedstawione będą informacje o PROJEKCIE PLANU ZARZĄDZANIA ŚRODOWISKIEM oraz odbędzie się publiczna dyskusja dotycząca tego dokumentu a także uwag i wniosków złożonych do niego wcześniej lub w trakcie tego spotkania.

Obwieszczenie to zostało podane do wiadomości poprzez ogłoszenie w lokalnej prasie (Dolnośląski dodatek do Gazety Wyborczej, Gazeta Kłodzka), wywieszenie na tablicach ogłoszeń w RZGW we Wrocławiu, RZGW we Wrocławiu Inspektorat Kłodzko, w Urzędzie Gminy Kłodzko oraz w miejscowościach Szalejów Dolny i Szalejów Górny, jak również na stronach internetowych instytucji wskazanych powyżej.

Figure 4. Announcement on public hearings for the draft EMP submitted to local press and published on the web sites and on the bulletin boards.





Figure 5. Announcement on public hearings for the draft EMP published at the web site of the RZGW in Wrocław.



Figure 6. Announcement on public hearings for the draft EMP published at the web site of the Municipality Office of Kłodzko.

**Cena wywoławcza w powyższej licytacji wynosi: trzy czwarte wartości oszacowania tj. kwotę: 203.250,00 zł.**

Przystępujący do licytacji zobowiązany jest złożyć rekojmie w wysokości 10% ceny oszacowania nieruchomości **kwota: 27.100,00 zł** w gotówce w kancelarii komornika w dniu poprzedzającym licytację w godzinach 09.00 - 15.00 lub na rachunek bankowy komornika nr **22 1020 5226 0000 6702 0460 5384** lub w postaci książeczki oszczędnościowej Banków upoważnionych według prawa bankowego do jej wystawienia, zaopatrzonej w upoważnienie właściciela do wypłaty całego wkładu stosownie do prawomocnego postanowienia Sądu – **najpóźniej w dniu poprzedzającym licytację.**

Łgodnie z przepisem art. 976 § 1 kpc w przetargu nie mogą uczestniczyć: dłużnik, komornik, ich małżonkowie, dzieci, rodzice i rodzeństwo oraz osoby obecne na licytacji w charakterze urzędowym, licytanci, którzy nie wykazali warunków poprzedniej licytacji, osoby, które mogą nabyć nieruchomości tylko za zezwoleniem organu państwowego, a zezwolenia tego nie przedstawiły.

**W dniu 13.06.2017r. wolno oglądać nieruchomości od godz. 09:00 do godz. 10:00**, a w ciągu dwóch tygodni przed licytacją wolno przeglądać w kancelarii komornika odpis protokołu oszacowania nieruchomości i operat zarządkowy biegłego.

**Komornik Sądowy Jacek Pawilowicz**

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**Komornik Sądowy przy Sądzie Rejonowym dla Wrocławia Śródmieścia we Wrocławiu**  
**Jacek Pawilowicz Kancelaria Komornicza we Wrocławiu**  
 Kancelaria Komornicza 50-035 Wrocław pl. Muszkaty 12/4  
 tel.: 71-345-06-93, fax.: www.wroclaw-komornik.pl, email: wroclaw.pawilowicz@komornik.pl  
 konto: PKO BP SA Oddział 1 we Wrocławiu: 22 1020 5226 0000 6702 0460 5384

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**OBWIESZCZENIE**

Komornik Sądowy przy Sądzie Rejonowym dla Wrocławia-Fabrycznej Tomasz Wieczorek Kancelaria Komornicza we Wrocławiu zawiadamia na podstawie art. 953 kpc w związku z art. 955 kpc, że w **dnio 14.07.2017 o godz. 9.00** w gmachu Sądu Rejonowego dla Wrocławia-Fabrycznej, ul. Świebódzka 5, **sala nr 207**, odbędzie się:

**DRUGA LICYTACJA**

**nieruchomości położonej w miejscowości Wrocław, przy ul. Stargardzkiej 7-9, posiadającej założoną księgę wieczystą w Wydziale Ksiąg Wieczystych Sądu Rejonowego dla Wrocławia-Krzyków nr WR1K/00242141/8.**

Przedmiotem licytacji jest grunt oddany w użytkowanie wieczyste - działka numer 4/155 oraz budynek stanowiący odrębną nieruchomość, położony przy ulicy Stargardzkiej we Wrocławiu. Dla gruntu oddanego w użytkowanie wieczyste prowadzona jest księga numer WR1K/00242141/8. Działka została oddana w użytkowanie wieczyste do 5.12.2089 r. Powierzchnia działki wynosi 349 m2. Na tej działce znajduje się budynek magazynowy, parterowy, w znikomej części jego powierzchni z poddaszem, ciepłoty, dach płaski kryty papą. Działka, na której znajduje się przedmiotowy budynek, posiada przyłącze sieci wodnej, gazowej, energetycznej, kanalizacyjnej oraz ciepłowniczej. Dostęp do drogi publicznej realizowany jest w sposób pośredni poprzez podwórze (zaplecze) budynków znajdujących się przy tej ulicy. Wjazd prowadzący do nieruchomości zlokalizowany jest między budynkiem numer 5 i 7. Nieruchomość oszacowana jest na kwotę brutto: **472.647,00 zł.**

Cena wywoławcza w powyższej licytacji wynosi: dwie trzecie wartości oszacowania, tj. kwotę: **115.098,00 zł.**

Przystępujący do licytacji zobowiązany jest złożyć rekojmie w wysokości 10% ceny oszacowania nieruchomości, tj. **47.264,70 zł** na rachunek bankowy komornika w banku PKO BP III o. WROCLAW nr **51102052420000290200190777** (liczy się data wpływu rekojmii na konto komornika) w gotówce lub w postaci książeczki oszczędnościowej Banków upoważnionych według prawa bankowego do jej wystawienia zaopatrzonej w upoważnienie właściciela do wypłaty całego wkładu stosownie do prawomocnego postanowienia Sądu najpóźniej w dniu poprzedzającym przetarg.

Osoby trzecich nie będą przeszkodą do przeprowadzenia licytacji i przysądzenia na własność na rzecz nabywcy bez zastrzeżeń, jeśli osoby te przed rozpoczęciem licytacji nie złożą dowodu, że wniosły oświadczenie o zwolnienie spod egzekucji tej nieruchomości lub innych przedmiotów razem z nią zajętych. Użytkowanie służebności i praw użytkownika, jeśli nie są ujawnione w księdze wieczystej i nie zostaną ogłoszone najpóźniej na trzy dni przed rozpoczęciem licytacji, nie będą uwzględniane w dalszym toku egzekucji i wygasną z chwilą uprawomocnienia się postanowienia o przysądzeniu własności. Nieruchomość tę można oglądać w dniu 5.07.2017r. w godzinach od 10.00 do 10.30, a operat szacunkowy tej nieruchomości znajduje się do wglądu w kancelarii komornika, Wrocław, pl. Świebódzka 1/3, tel. 71 788 64 38.

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**OBWIESZCZENIE**

Zgodnie z wymaganiami Banku Światowego (polityka operacyjna OP 4.01), instytucji współfinansującej realizację Projektu ochrony przeciwpowodziowej w dorzeczu Odry i Wisty,

**podaje się do publicznej wiadomości, co następuje:**

Regionalny Zarząd Gospodarki Wodnej we Wrocławiu (RZGW Wrocław) udostępnił do wglądu wszystkim zainteresowanym osobom i instytucjom PROJEKT PLANU ZARZĄDZANIA ŚRODOWISKIEM dla Komponentu 2 Ochrona przed powodzią Kotliny Kłodzkiej, Podkomponent 2A Ochrona czynna, Zadanie 2A.2/1 Budowa suchego zbiornika przeciwpowodziowego rzeka Bystrzyca Dusznicka w miejscowości Szalejów (nazywany dalej PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM).

**Każdy zainteresowany może:**

**A) zapoznać się z PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM** od dnia 05 czerwca 2017 r. do dnia 20 czerwca 2017 r. w dniach roboczych (10 dni roboczych, z wyłączeniem dnia 16 czerwca 2017 r. oraz dni świątecznych), w siedzibie:

- ♦ Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu, ul. C.K. Norwida 34, 50-950 Wrocław w dniach roboczych od godziny 8:00 do 14:00.
- ♦ Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu, Inspektorat w Kłodzku, ul. Kościuszki 1, 57-300 Kłodzko w dniach roboczych od godziny 8:00 do 14:00.
- ♦ Urzędu Gminy Kłodzko, ul. Okrzei 8A, 57-300 Kłodzko, pokój nr 414 w dniach roboczych od godziny 7:30 do 15:30.
- ♦ Konsultanta RZGW we Wrocławiu, ul. Szymanowskiego 9, 51-609 Wrocław w dniach roboczych od godziny 9:00 do 15:00.

**lub poprzez stronę internetową:**

- ♦ Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu pod adresem: [www.wroclaw.rzgw.gov.pl](http://www.wroclaw.rzgw.gov.pl)
- ♦ Urzędu Gminy Kłodzko pod adresem: [www.gmina.klodzko.pl](http://www.gmina.klodzko.pl)
- ♦ Biura Koordynacji Projektu pod adresem – [www.odrapcu.pl](http://www.odrapcu.pl),

**B) składać uwagi i wnioski** odnośnie PROJEKTU PLANU ZARZĄDZANIA ŚRODOWISKIEM w formie pisemnej oraz ustnej do protokołu pod w/w adresami lub w formie elektronicznej na adres e-mail: [oppkk@wroclaw.rzgw.gov.pl](mailto:oppkk@wroclaw.rzgw.gov.pl) w dniach od 05 czerwca 2017 r. do 20 czerwca 2017 r. (z wyłączeniem dnia 16 czerwca 2017 r. oraz dni świątecznych).

**Instytucją właściwą do rozpatrzenia uwag i wniosków jest Regionalny Zarząd Gospodarki Wodnej we Wrocławiu.**

Po okresie 10 dni roboczych udostępnienia do wglądu dokumentu (od 05 czerwca 2017 r. do 20 czerwca 2017 r.), w dniu 21 czerwca 2017 r. o godzinie 16:30 w Urzędzie Gminy Kłodzko, ul. Okrzei 8A, 57-300 Kłodzko w Sali 106 (parter), odbędzie się spotkanie otwarte dla wszystkich zainteresowanych, na którym przedstawione będą informacje o PROJEKCIE PLANU ZARZĄDZANIA ŚRODOWISKIEM oraz odbędzie się publiczna dyskusja dotycząca tego dokumentu a także uwag i wniosków złożonych do niego wcześniej lub w trakcie tego spotkania.

Obwieszczenie to zostało podane do wiadomości poprzez ogłoszenie w lokalnej prasie (Dolnośląski dodatek do Gazety Wyborczej, Gazeta Kłodzka), wywieszenie na tablicach ogłoszeń w RZGW we Wrocławiu, RZGW we Wrocławiu Inspektorat Kłodzko, w Urzędzie Gminy Kłodzko oraz w miejscowościach Szalejów Dolny i Szalejów Górny, jak również na stronach internetowych instytucji wskazanych powyżej.

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Figure 7. Announcement on public consultation for the draft EMP published in a local supplement to *Gazeta Wyborcza*.

## OBWIESZCZENIE

Zgodnie z wymaganiami Banku Światowego (polityka operacyjna OP 4.01), instytucji współfinansującej realizację Projektu ochrony przeciwpowodziowej w dorzeczu Odry i Wisły,

**podaje się do publicznej wiadomości, co następuje:**

Regionalny Zarząd Gospodarki Wodnej we Wrocławiu (RZGW Wrocław) udostępnił do wglądu wszystkim zainteresowanym osobom i instytucjom PROJEKT PLANU ZARZĄDZANIA ŚRODOWISKIEM dla Komponentu 2 Ochrona przed powodzią Kotliny Kłodzkiej, Podkomponent 2A Ochrona czynna, Zadanie 2A.2/1 Budowa suchego zbiornika przeciwpowodziowego rzeka Bystrzyca Dusznicka w miejscowości Szalejów (nazywany dalej PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM).

Każdy zainteresowany może:

A) zapoznać się z PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM od dnia 5 czerwca 2017 r. do dnia 20 czerwca 2017 r. włącznie (10 dni roboczych, z wyłączeniem dnia 16 czerwca 2017 r. oraz dni świątecznych), w siedzibie:

- Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu, ul. C.K. Norwida 34, 50-950 Wrocław w dniach roboczych od godziny 8:00 do 14:00.
- Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu, Inspektorat w Kłodzku, ul. Kościuszki 1, 57-300 Kłodzko w dniach roboczych od godziny 8:00 do 14:00.
- Urzędu Gminy Kłodzko, ul. Okrzei 8A, 57-300 Kłodzko, pokój nr 414 w dniach roboczych od godziny 7:30 do 15:30.
- Konsultanta RZGW we Wrocławiu, ul. Szymanowskiego 9, 51-609 Wrocław w dniach roboczych od godziny 9:00 do 15:00

lub poprzez stronę internetową:

- Regionalnego Zarządu Gospodarki Wodnej we Wrocławiu pod adresem: [www.wroclaw.rzgw.gov.pl](http://www.wroclaw.rzgw.gov.pl)
- Urzędu Gminy Kłodzko pod adresem: [www.gmina.klodzko.pl](http://www.gmina.klodzko.pl)
- Biura Koordynacji Projektu pod adresem – [www.odrapcu.pl](http://www.odrapcu.pl),

B) składać uwagi i wnioski odnośnie PROJEKTU PLANU ZARZĄDZANIA ŚRODOWISKIEM w formie pisemnej oraz ustnej do protokołu pod w/w adresami lub w formie elektronicznej na adres e-mail: [oppkk@wroclaw.rzgw.gov.pl](mailto:oppkk@wroclaw.rzgw.gov.pl) w dniach od 5 czerwca 2017 r. do 20 czerwca 2017 r. (z wyłączeniem dnia 16 czerwca 2017 r. oraz dni świątecznych).

Instytucją właściwą do rozpatrzenia uwag i wniosków jest Regionalny Zarząd Gospodarki Wodnej we Wrocławiu.

Po okresie 10 dni roboczych udostępnienia do wglądu dokumentu (od 5 czerwca 2017 r. do 20 czerwca 2017 r.), w dniu 21 czerwca 2017 r. o godzinie 16:30 w Urzędzie Gminy Kłodzko, ul. Okrzei 8A, 57-300 Kłodzko w Sali 106 (parter), odbędzie się spotkanie otwarte dla wszystkich zainteresowanych, na którym przedstawione będą informacje o PROJEKcie PLANU ZARZĄDZANIA ŚRODOWISKIEM oraz odbędzie się publiczna dyskusja dotycząca tego dokumentu a także uwag i wniosków złożonych do niego wcześniej lub w trakcie tego spotkania.

Obwieszczenie to zostało podane do wiadomości poprzez ogłoszenie w lokalnej prasie (Dolnośląski dodatek do Gazety Wyborczej, Gazeta Kłodzka), wywieszenie na tablicach ogłoszeń w RZGW we Wrocławiu, RZGW we Wrocławiu Inspektorat Kłodzko, w Urzędzie Gminy Kłodzko oraz w miejscowościach Szalejów Dolny i Szalejów Górny, jak również na stronach internetowych instytucji wskazanych powyżej.

REKLAMA

Figure 8. Announcement on public consultation for the draft EMP published in *Gazeta Kłodzka*.



Figure 9. Public hearings for the draft EMP held in the Municipality Office of Kłodzko, on the 21<sup>st</sup> of June 2017.

## **9. ORGANIZATIONAL STRUCTURE OF EMP IMPLEMENTATION**

The Task being the subject of this EMP is implemented within the Odra-Vistula Flood Management Project (see chapter 1.1), co-financed using the World Bank's funds. Therefore, the EMP implementation supervision structure has to comply with both the provisions of Polish law and the requirements of the World Bank.

### **9.1. ODRA-VISTULA FLOOD MANAGEMENT PROJECT COORDINATION UNIT (OVFM PCU)**

The entity responsible for overall coordination of implementing the individual parts of the EMP within the OVFM Project is the Project Coordination Unit (PCU), which is currently a state budgetary unit responsible to the President of the National Water Management Authority.

OVFM PCU tasks include i.a.:

- cooperation with the Minister of Finance, the Minister of the Interior and Administration, the Minister of the Environment, the National Water Management Authority and other government and local government administration bodies related to OVFM Project implementation;
- coordination of activities of individual Project Implementation Units and supporting those units in the scope of EMP implementation;
- monitoring and assessment of EMP implementation progress;
- cooperation with the World Bank on a running basis, including development of quarterly reports on OVFM Project implementation.

### **9.2. PROJECT IMPLEMENTATION UNIT (PIU) AND PROJECT IMPLEMENTATION OFFICE (PIO)**

The entity directly responsible for implementing the EMP for the Task and monitoring EMP implementation progress is the Project Implementation Unit (PIU), i.e. RZGW in Wrocław, as a state budgetary unit responsible to the President of the National Water Management Authority.

In relation to OVFM Project implementation, the Project Implementation Office (PIO) was established as a separate organizational unit directly responsible to the Director of RZGW in Wrocław and supervised by him/her. Such a structure is transparent and its decision-making level is situated very high, which increases EMP implementation efficiency.

As part of EMP implementation supervision, the PIO performs the following tasks:

- monitoring of EMP implementation progress;
- financial management and account management;
- preparation of the necessary reports for the purposes of EMP implementation monitoring and for the purposes of coordination of EMP implementation by all the involved services.

The scope of duties of PIO employees related to EMP implementation supervision is as follows:

- management and coordination of as well as supervision over EMP monitoring implemented by the Consultant/Engineer and the Contractor;

- direct supervision over correct Task implementation;
- cooperation with the PIU;
- administrative and legal supervision over EMP implementation;
- verification of EMP implementation reports and accounts prepared by the Consultant/Engineer and the Contractor;
- financial supervision over EMP implementation;
- supervision over the correctness of applying formal procedures concerning EMP implementation which stem i.a. from the requirements of the Contract for works, *the Construction Law*, *the Environmental Protection Law* and other documents.

#### **9.4. CONSULTANT/ENGINEER**

The role of the Consultant/Engineer is supporting the PIU (RZGW in Wrocław) in effective implementation of the entire investment process, from undertaking preparation to its settlement.

The Consultant/Engineer shall be selected using the QCBS (Quality- and Cost-Based Selection) method, in accordance with *Guidelines: Selection and Employment of Consultants by World Bank Borrowers*. The Consultant/Engineer shall be obliged to supervise EMP implementation, in accordance with the scope defined in the Consultant/Engineer's contract, which shall include i.a.:

- monitoring of EMP implementation by the Contractor;
- monitoring the Contractor's actions;
- checking the quality of the construction works performed and the construction products used to build by the Contractor, in particular preventing the use of construction products which are defective or are not allowed for use in civil engineering;
- representing RZGW in Wrocław on the construction site by controlling the compliance of construction implementation with the project, the building permit, the provisions in the scope of environmental protection and the principles of technical knowledge;
- supervising all issues related to environmental protection by experienced specialists in the scope of environmental protection and by the Engineer's remaining staff;
- constant monitoring of the correctness of implementing the measures mitigating the negative environmental impact;
- performance of additional examinations if it becomes necessary to verify the Contractor's accounts;
- identification of problems stemming from the adverse environmental impact of construction works implementation and submitting proposed solutions to those problems;
- checking and accepting the construction works to be covered up and temporary construction works, participation in tests and technical acceptance of technical devices and systems as well as preparation of and participation in acceptance activities of ready structures and commissioning them;
- confirmation of actually performed works and removed defects as well as, on the Investor's request, inspection of construction settlement.

## **9.5. CONTRACTOR**

A Contractor shall be selected to implement the construction works. The Contractor shall be responsible i.a. for EMP implementation. The Contractor's duties in this scope include:

- performance of construction works in accordance with the rules defined in the EMP, Contract conditions, design documentation, binding provisions of law and requirements of administrative decisions issued for the Task;
- implementation of the Engineer's recommendations (including those of the environmental supervision specialists and the Investor's supervision inspector) concerning EMP implementation;
- ensuring the preparation of i.a. the following documents before construction commencement: a safety and health protection plan, a waste management plan, a quality assurance plan, a construction site flood management plan for the works implementation period and a construction site organization design;
- maintenance of construction documentation;
- preparation of monthly accounts and reports on inspections;
- preparation of accounts concerning environmental protection;
- applying to RZGW in Wrocław for changes in design solutions if this is justified by the necessity of increasing the implementation safety of construction works or streamlining the construction process in the scope concerning EMP implementation.

## **10. EMP IMPLEMENTATION SCHEDULE AND REPORTING PROCEDURES**

EMP implementation enables the parties involved in the preparation, implementation and supervision of the Contract for works to do the following:

- identify various environmental aspects which significantly influence the environment status so that they can be controlled, corrected and reduced but, consequently, produce economic effects;
- correct unfavourable consequences of conducted works during their implementation, which is beneficial to the environment and the financial results;
- define the objectives and tasks implemented within the adopted environmental policy, which are included in the EMP, require outlays and yield measurable effects;
- identify and eliminate potential hazards and breakdowns as well as prevent and remove environmental effects which may be related to them and cause losses disproportionate to prevention costs;
- use natural goods rationally with minimal environmental losses and optimal generation of costs.

Moreover, implementation of the recommendations and measures stemming from the EMP may reduce or even eliminate contractual risks, in particular:

- the risk of the Contractor skipping the environmental protection issues in the task implementation process;
- the risk of escalation of protests by the local community as a result of the Contractor's failure to observe the works implementation technologies and the environmental procedures approved by the Engineer;
- the risk of additional environmental penalties;
- the risk of bearing additional environmental losses.

Bearing in mind the significance of the issues determining the environmental and social conditions, the following EMP implementation procedures are anticipated:

- a) before selecting the Contractor of works, the Employer shall submit the draft of this EMP to the World Bank in order to receive an opinion;
- b) after receiving a positive opinion from the Bank, the EMP shall undergo public consultations;
- c) after conducting the public consultations (and supplementing the document with consultation results), the EMP shall be supplemented and its final version shall be submitted to the World Bank for approval;
- d) after EMP approval by the World Bank, the final document shall be included in the bidding documents concerning Contractor selection;
- e) all actions of the Contractor of works shall be reported regularly (once a month) in terms of the obligations stemming from the EMP and other contract documents. They shall be reported in Polish and English, both in a printed version and in an electronic version. Those reports shall require the Engineer's and the Employer's approval.

Moreover, appropriate units involved in Task implementation are obliged to meet additional obligations in the scope of monitoring and reporting the issues related to environmental pro-

tection, which are defined in the administrative decisions issued for the Task in question (see chapter 3.5) and presented in Appendix 1 and Appendix 2 to the EMP.

It is planned that the Contractor shall prepare collective reports on environmental monitoring at the works implementation stage. The reports shall be confirmed by environmental supervision specialists from the Contractor's team, approved by the Engineer's nature supervision staff and submitted to the RDOŚ via the PIU. A detailed scope of the report shall be determined by the Engineer (the commencement report, the periodic (monthly) report, the quarterly report, the ad hoc report, the closure report). The Engineer shall also define their preparation deadlines.

The OVFMP Project reporting system shall be based on monthly reports submitted by Contractors to the PIO via the Engineer and on the Engineer's monthly reports. Monthly reports on EMP implementation shall also be prepared (by the Contractor and the Engineer) – as part of the monthly reports or as separate documents. Collective quarterly reports shall also be developed on this basis.

The PIU shall submit quarterly reports concerning its implemented tasks to the PCU. They shall contain the required set of information and descriptions enabling the PCU to prepare the OVFMP Project quarterly report. Moreover, especially in the case of problems with implementation of the Contract for works, the PCU shall expect the PIO to submit information sets and data every month.

The following reporting procedures were defined:

- 1) Reporting:
  - a) reports (the commencement, monthly, quarterly and final ones) prepared by the Contractor of works;
  - b) report overview by the Engineer;
  - c) submitting the report to the Employer (for information purposes);
  - d) submitting the report to the RDOŚ in Wrocław (only in the scope stemming from the issued administrative decisions);
  - e) submission of a quarterly report by the PIU to the PCU.
- 2) Archiving:
  - a) Contractor: 1 copy of each report in the electronic version, for 5 years after the Contract completion date;
  - b) Engineer: 1 copy of each report in the electronic version, for 5 years after Contract completion;
  - c) Employer: 1 copy of each report in the electronic version, for 5 years after the Contract completion date.
- 3) Evaluation:
  - a) assessment (on a running basis) of implementation results of the planned actions stemming from the EMP;
  - b) analysis (on a running basis) of documentation (the Contractor's reports) by the Engineer;
  - c) submission of reliable information on the course of the construction process to the Employer, with special consideration for the implementation of the measures limiting



the negative environmental impact and the recommendations stemming from the environmental decisions;

d) preparation and submission of quarterly reports by the PCU to the World Bank.

The following are planned:

- *ex-ante* evaluation: a report before commencing Contract implementation (the Engineer's report);
- evaluation on a running basis: the Engineer's quarterly reports;
- *ex-post* evaluation:
  - a report after completing Contract implementation (final reports on EMP implementation prepared by the Contractor and the Engineer);
  - a report on EMP implementation after the Defect Notification Period, prepared by the Engineer.

## 11. LIST OF SOURCE MATERIALS

- 1) *Project Operations Manual (POM) for the Odra-Vistula Flood Management Project.* OVFM Project Coordination Unit. Wrocław, October 2015.
- 2) *Environmental and Social Management Framework for the Odra-Vistula Flood Management Project – a final document.* RZGW in Szczecin, RZGW in Wrocław, RZGW in Kraków, ZMiUW of the Lubuskie Province in Zielona Góra, West-Pomeranian ZMiUW in Szczecin, ZMiUW of the Świętokrzyskie Province in Kielce, Lower-Silesian ZMiUW in Wrocław, ZMiUW of the Małopolskie Province in Kraków, ZMiUW of the Podkarpackie Province in Rzeszów, IMGW – National Research Institute. April 2015.
- 3) *The environmental impact report for the designed undertaking entitled: “Construction of “Szalejów Górny” – a dry flood control reservoir on Bystrzyca Dusznicka River.* SWECO Hydroprojekt Kraków Sp. z o.o., October 2014.

## 12. LIST OF APPENDICES

- Appendix 1. Plan of mitigation measures
- Appendix 2. Plan of monitoring measures
- Appendix 3. List of national legal acts related to environmental protection
- Appendix 4. Copies of administrative decisions in the scope of environmental protection issued for the Task:
  - a. Decision of the Regional Director for Environmental Protection in Wrocław of September 30<sup>th</sup>, 2015 on the environmental conditions for the construction of “Szalejów Górny” dry flood control reservoir (ref. No.: WOOS.4233.8.2013.LCK.54)
  - b. Decision of the General Director for Environmental Protection in Warsaw of May 16<sup>th</sup>, 2016, partially changing the decision on the environmental conditions of September 30<sup>th</sup>, 2015 issued by the Regional Director for Environmental Protection in Wrocław (ref. No.: DOOŚoaII.4200.24.2015.EK.7)
  - c. Decision of the Regional Director for Environmental Protection in Wrocław of August 26<sup>th</sup>, 2016 exempting from bans related to plants covered by species protection (ref. No.: WPN.6400.47.2016.IL)
  - d. Decision of the Regional Director for Environmental Protection in Wrocław of August 26<sup>th</sup>, 2016 exempting from bans related to animals covered by species protection (ref. No.: 6401.268.2016.IL)
- Appendix 5. Tables presenting the information about the resources of protected species of plants, fungi and animals in the surroundings of the Task
- Appendix 6. Map presenting the location of main elements of the Task
- Appendix 7. Map presenting Task location in relation to protected areas
- Appendix 8. Map presenting the location of natural habitats, historical monuments and archaeological sites in the area of Task