# State Water Holding Polish Waters Regional Water Management Authority in Szczecin

# ENVIRONMENTAL MANAGEMENT PLAN

# ODRA – VISTULA FLOOD MANAGEMENT PROJECT – 8524 PL

Environmental category B - pursuant to the OP 4.01 WB

# **Component 1:**

Flood Protection of the Middle and Lower Odra

# **Subcomponent 1B:**

Flood Protection of the Middle and Lower Odra

# Contract for works 1B.4/2:

Dredging of Klucz-Ustowo ditch

# FINAL VERSION

Edition	Date	Author	Reviewed by	Client's approval
I	13 February 2020	Alicja Wilanowska		
	13 February 2020	Waldemar Krzysztof	Dorota Kowalczyk	

#### ODRA – VISTULA FLOOD MANAGEMENT PROJECT

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# **ENVIRONMENTAL MANAGEMENT PLAN**

Component: 1 – Flood Protection of the Middle and Lower Odra
Subcomponent: 1B – Flood Protection of the Middle and Lower Odra

Contract: 1B.4/2 Task: Dredging of Klucz-Ustowo ditch

## **Project Implementation Unit:**

State Water Holding Polish Waters in Warsaw represented by the Director of the Regional Water Management Authority in Szczecin

The authors of the study:

Odra-Vistula Flood Management Project Implementation Unit in State Water Holding Polish Waters Regional Water Management Authority in Szczecin

Technical Assistance Consultant of the Regional Water Management Authority in Szczecin for the Odra-Vistula Flood Management Project – Joint Venture: SWECO Consulting Sp. z o. o., SWECO Nederland B.V., Sweco Engineering Sp. z o. o., Ekocentrum – Wrocławski Ośrodek Usług Ekologicznych Sp. z o. o.

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# Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

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

Name	Description	
IBRD / WB	International Bank for Reconstruction and Development / World Bank	
PCU / PCU OVFMP Project Coordination Unit / Coordination Unit for the Odra-Vistula Flood Management Project		
BP	World Bank Procedure <sup>1</sup>	
Derogation decision	The decision granting exemptions from any bans applicable to plant and animal species protected under the protection of species	
ESMF	Environmental and Social Management Framework for the OVFMP <sup>2</sup>	
ESHS	The World Bank's environmental, social and health and safety policies	
Investing Party / Ordering Party / PIU	State Water Holding Polish Waters in Warsaw represented by the Director of the Regional Water Management Authority in Szczecin / the OVFMP Project Implementation Unit	
SWB Surface Water Bodies		
GWB Groundwater Bodies		
PIO	Project Implementation Office OVFMP in PGW WP RZGW in Szczecin	
Consultant /Engineer /Contract Engineer	A company or a legal entity implementing the Technical Support Consultant Service as part of OVFMP executed by the Regional Water Management Authority in Szczecin	
Contract / Contract for Works	Contract for works 1B 4/2 – dredging of Klucz-Ustowo ditch	
EIA	Environmental Impact Assessment	
OP World Bank Operational Policy <sup>3</sup>		

https://policies.worldbank.org/sites/PPF3/Pages/Manuals/Operational%20Manual.aspx

http://odrapcu2019.odrapcu.pl/popdow\_dokumenty/

and on the website of the World Bank:

http://documents.worldbank.org/curated/en/717671468333613779/Poland-Odra-Vistula-Flood-Management-Project-environmental-and-social-management-framework

<sup>&</sup>lt;sup>1</sup> World Bank Operational Policy and Procedure are presented in document The World Bank Operational Manual, available on the website:

<sup>&</sup>lt;sup>2</sup> Document available on the website OVFMP PCU:

<sup>&</sup>lt;sup>3</sup> See the footnote for BP (World Bank Procedure).

# Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

Name	Description
PAD	Project Appraisal Document <sup>1</sup> for the OVFMP
PGW WP	Państwowe Gospodarstwo Wodne Wody Polskie (State Water Holding Polish Waters)
Health and Safety Plan (SHP Plan)	Safety and health protection plan
IE OP	Operational Programme Infrastructure and Environment
POM	Project Operations Manual <sup>2</sup> for the OVFMP Project
Project / OVFMP/ OVFM Project	Odra-Vistula Flood Management Project
EMP	Environmental Management Plan
RDOS	Regional Directorate of Environmental Protection
RZGW in Szczecin	The Regional Water Management Authority in Szczecin
EU	European Union
The Contractor / The Contractor of the Task / The Contractor of a part of the Contract	A company or a legal entity executing the Contract for works <b>1B.4/2</b> – dredging of Klucz-Ustowo ditch
Task	Task 1B.4/2. Dredging of Klucz-Ustowo ditch as part of the Odra-Vistula Flood Management Project
Notification of works	Notification about the works to the Regional Director of Environmental Protection, pursuant to Section 118 of the <i>Environmental Protection Act</i> .

<sup>&</sup>lt;sup>1</sup> Document available on World Bank website, at:

<u>http://documents.worldbank.org/curated/en/320251467986305800/Poland-Odra-Vistula-Flood-Management-Project</u>

<sup>&</sup>lt;sup>2</sup> Document available on the website OVFMP PCU, at: <a href="http://odrapcu2019.odrapcu.pl/popdow\_dokumenty/">http://odrapcu2019.odrapcu.pl/popdow\_dokumenty/</a>

# List of abbreviated names of legal acts used in EMP

The names of legal acts cited in this EMP are provided in a shortened versions. The full names of particular legal acts are outlined herein below:

Name used in the text	Full name (publication address included)	
Birds Directive/BD	Council Directive 2009/147/EC of 30 <sup>th</sup> November 2009 on the conservation of wild birds (OJ L 288 of 06/11/2007)	
Habitats Directive/HD	Council Directive 92/43/EEC of 21st May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206 of 22/07/1992, as amended)	
Water Framework Directive (WFD)  The European Parliament and Council directive 2000/60/EC of 23 <sup>rd</sup> October 2000 establishing a framework for the community action in field of water policy (OJ L 327 of 22/12/2000, as amended)		
	The Ordinance of the Council of Ministers of 9 <sup>th</sup> November 2010 on actions which might have an impact on the environment (consolidated text, Journal of Laws of 2016, item 71)	
EIA Ordinance	The abovementioned regulation was repealed by the regulation of the Council of Ministers of September 10, 2019 on projects that may significantly affect the environment (Journal of Laws of 2019, item 1839). However, the provisions in force prior to the entry into force of the repealing Regulation has been applied to the Task.	
EIA Act	The Act of 3 <sup>rd</sup> October 2008 on making available information on the environment and its protection, public participation in environmental protection and environmental impact assessments (consolidated text, Journal of Laws of 2018, item 2081, as amended)	
Nature Conservation Act	The Act of 16 <sup>th</sup> April 2004 on the conservation of nature (consolidated text, Journal of Laws of 2018, item 1614, as amended)	
Waste Management Act	The Act of 14 <sup>th</sup> December 2012 on waste management (consolidated text, Journal of Laws of 2019, item 701, as amended)	
Inland Fisheries Act	The Act of 18 <sup>th</sup> April 1985 on inland fisheries (consolidated text, Journal of Laws of 2018, item 1476, as amended)	
Construction Law	The Act of 7 <sup>th</sup> July 1994, on the Construction Law (consolidated text, Journal of Laws of 2019, item 1186, as amended)	
Environmental Protection Law	The Act of 27 <sup>th</sup> April 2001, the Environmental Protection Law (consolidated text, Journal of Laws of 2019, item 1396, as amended)	
Water Resources Law  The Act of 20 <sup>th</sup> July 2017, the Water Resources Law (consolidated Journal of Laws of 2018, item 2268, as amended)		
Act on the Protection and Care of Monuments  Act of 23 <sup>th</sup> July 2003 on the protection and care of historical (consolidated text, Journal of Laws of 2018, item 2067, as an action of the protection and care of historical (consolidated text, Journal of Laws of 2018, item 2067, as an action of the protection and care of historical (consolidated text, Journal of Laws of 2018).		

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Name used in the text	Full name (publication address included)	
Inland Waterway Transport Act	Act of 21 <sup>th</sup> December 2000 on Inland Waterways Transport (consolidated text, Journal of Laws of 2019, item 1568, as amended)	
The Ordinance on navigation rules	The Ordinance of the Minister of Infrastructure of 28 <sup>th</sup> April 2003 on inland waterway navigation rules (Journal of Laws No. 202, item 2072)	
The Ordinance on local legal acts on waterways	The Ordinance of the Director of the Office of Inland Navigation in Szczecin of 7th June 2004 on local legal acts on waterways	

## **ABSTRACT**

This Environmental Management Plan (EMP) refers to the Task 1B.4/2 *Dredging of Klucz - Ustowo ditch* constituting a part of the Odra-Vistula Flood Management Project (OVFMP) and performed as a *Contract for Works: 1B.4/2*.

The EMP provides the following information:

- a brief description of the OVFMP Project and its Component 1 with the included Task (Chapters 1.1 and 1.2);
- a description of the Task of this EMP (chapter 2);
- an outline of the institutional, legal, and administrative conditions for the execution of the Task, including the current status of the EIA procedures for the Task (Chapter 3);
- a description of particular environmental features within the area the Task is to be executed (Chapter 4);
- a summary of the Task's impact on the environment (Chapter 5);
- a description of mitigation efforts aiming to eliminate or limit a potential negative effect the Task might have on the environment (Chapter 6), together with a table listing these efforts (Attachment 1);
- a description of the activities regarding environmental monitoring activities necessary for the execution of the Task (Chapter 7), together with the table listing these activities (Attachment 2);
- a description of social consultations carried out during particular stages of drafting the environmental documentation for the Task (Chapter 8);
- a description of the organizational structure of the EMP implementation (Chapter 9);
- the EMP implementation schedule with a description of reporting procedures (Chapter 10);
- the list of source materials cited in the EMP (Chapter 11);
- the list of Attachments to the EMP (Chapter 12);
- duplicates of the administrative decisions regarding environmental protection issued for the Task (Attachment 4).

#### The outline of the Task

The Task involves dredging of Klucz - Ustowo ditch. State Water Holding Polish Waters Regional Water Management Authority in Szczecin is the Project Implementation Unit for the Task.

# The scope of the Task

The Task involves dredging of the deposits from the bottom of Klucz - Ustowo ditch (at a section of the length of approx. 2.7 km). The purpose of dredging is to deepen the already existing waterway. This operation will allow to efficiently carry out ice-breaking activities and will enable passage for ice-breakers taking part in ice-breaking activities performed in this particular section of the river.

Klucz - Ustowo ditch is an alternative way of draining ice float in the case of blockage of the Lake Dabie. If it is not possible, despite the ice-breaking action, to drain the ice with the use of the Lake Dabie (ice jamming or permanent occurrence of winds from the easterly directions),

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

Klucz – Ustowo ditch is used to carry out a broken ice float to the Western Odra river. Bearing in mind Klucz – Ustowo ditch function in the flood protection, it should be deeper than is currently required for inland navigation. Greater depth will reduce the risk of significant ice jam in the ditch created by ice flowing from the Eastern Odra river and the border section of the Odra river. That, in the event of inability to conduct ice-breaking operations on Lake Dąbie, will provide for more efficient ice jam transfer towards the Western Odra river.

Dredging of the bottom deposits from the bottom of Klucz - Ustowo ditch will allow to establish required depth of the fairway, pursuant to the Agreement of 27<sup>th</sup> April 2015 between the Governments of the Republic of Poland and the Federal Republic of Germany on a mutual improvement of the conditions on the waterways of the Polish and German borderland (flood control, navigation and flow conditions). The depth of the fairway, determined in accordance with the above-mentioned Contract, should improve the run-off of the ice float through the Klucz-Ustowo ditch. Execution of the Task is planned between January 2020 and the end of December 2021, however actual dredging works shall be carried out between the 1<sup>st</sup> August and the 31<sup>st</sup> December in given years.

The basic dredging technology selected for this Task is extracting the material from the bottom of the cut with the use of a dredger cutter and storing it on a dump barge or a barge. The material from the bottom of the cut will be churned up with a dredger cutter's head and pumped onto transport equipment. Other type of equipment, for instance a clamshell dredger or a backhoe, may be used only in specific instances i.e. the finishing works (such as creating river embankments or eliminating shallow areas in certain places) if such instances are deemed necessary after dredging has been finished and depth sounding has been carried out. The extracted material shall be transported using dump barges or barges to the Mańków stockpiling field. The Mańków field is located in the commune of Stepnica, on the eastern bank of the Szczecin Lagoon, in its southern part.

# Institutional, legal and administrative conditions

In terms of its characteristics, potential impact on the environment, and its location in relation to protected areas, the Task is executed pursuant to applicable national regulations on the environmental protection.

# Status of administrative procedures regarding the EIA

Pursuant to the national legal requirements, more specifically – Section 118 of the Act *on Environmental Protection*, the Regional Director of the Environmental Protection in Szczecin was notified about planned execution of the Task. The Regional Director of the Environmental Protection in Szczecin, having analysed the information included in the notification, did not object to the future activities outlined therein (notification of 29/03/2019, reference number: WOPN-ON.670.47.2019.PW), therefore stating that no possibility of major impacts on Natura 2000 area is present.

Pursuant to the national legal requirements, more specifically – Art 394 paragraph 1, p. 12 of the Act - *Water Resources Law*, Minister of Marine Economy and Inland Navigation was notified about planned execution of the Task. The Minister of Marine Economy and Inland Navigation, having analysed the information included in the notification, did not object to the

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

future activities outlined therein (announcement of 16/11/2018, reference number: DOK.DOK3.9701.19.2018.US; PW-65427).

A permission granting exemption from bans relating to protected animal species was acquired for the purposes of the Task (decision of the Regional Director of the Environmental Protection in Szczecin of 14/06/2019, reference number: WOPN-OG.6401.02.134.2019.MK, WOPN-OG.6401.03.12.2019.MK, WOPN-OG.6401.04.11.2019.MK, WOPN-OG.6401.06.06.2019.MK, WOPN-OG.6400.71.2019.AJ).).

#### Status of environmental features near the Task

As a result of works related to identification of the features of the natural and cultural environment it was stated that the following environmental constraints are present within the area where the Task will be executed, as well as nearby:

- the planned works are located within the area of surface water bodies (SWB): *the Odra, from the Western Odra to the Parnica* (RW6000211971) and within the area of the groundwater bodies (GWB) no 4 (PLGW60004);
- the Task is to be performed in Natura 2000 the Lower Odra Valley PLB320003 and the Lower Odra PLH320037 regions. Wildlife inventory was carried out for the purposes of the given Task its summary is presented in Section 4.7;
- there are no protected objects of cultural value nor objects labelled as tangible assets, both within the area of the works, and nearby.

# **Summary of Environmental Impact Assessment**

#### Land surface and landscape

The task implementation area is entirely located within the riverbed of Klucz - Ustowo ditch. No need arises to establish Contractor's construction back-up facilities along Klucz - Ustowo ditch. The execution of the Task does not entail any changes to the land surface or landscape features.

#### Climate

The execution of the Task will have no impact on the climate.

#### Ambient air

The impact of the performance of the Task on the sanitary condition of the air will be present only during the dredging stage and will be minor.

#### Soil and land

The performance of the Task will have no effect on soil and land. The whole riverbed of Klucz - Ustowo ditch constitutes the area of the Task. No activities on land and soil outside the area of the cut are planned.

# Surface water

The Task might have temporary negative effects on the quality of surface water during the execution stage due to the works in the river channel during which a larger amount of sediments might be present in the water. However, due to a relatively small spatial scale of the

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

undertaking, particularly in relation to the area of the SWB, the scope of a negative impact will be minor, should indicated mitigation efforts be applied. Such an impact will be short-termed and reversible.

# *Underground water*

The performance of the Project will not affect underground water; no possible contamination sources for underground water will be present.

#### Acoustic environment

The impact of the performance of the Task on the acoustic environment of the surroundings will be present only during the dredging stage and will be minor.

# Wildlife

The impact of the Task will mostly be present during its execution. Due to the fact that the work schedule takes into account fishing ban season and birds and bats breeding season, no major impacts on protected species of the Lower Odra PLH320037 area are forecast. The execution of the investment will not have a major impact on the bird population protected under the Lower Odra Valley PLB320003 protection plan, nor will it lead to the destruction of bird habitats in this region. Short-term impact (up to 3 years) is forecast until the habitats of species connected to the dredged riverbed are restored.

In the vicinity of the area of the Task implementation (in the Obnica Północna Canal) there is a site of the water chestnut (*Trapa natans*). The implementation of the Task requires the implementation of additional dedicated measures to minimise the potential impact on the water chestnut population, in particular in the area between the eastern end of the Klucz - Ustowo ditch and the estuary of Obnica Północna.

#### Cultural monuments and material goods

The works will not directly interfere with buildings listed in the monument records or/and the registry of monuments. Hence, there is no negative impact on those objects during the execution of the Task.

# *Human health and safety*

The performance of the Task poses no hazards to human health and safety. Such hazards may arise in case of breakdowns, catastrophes, and other unforeseeable circumstances (such as, for instance, discharge of pollutants, fire, excavation of unexploded ordnance, floods or collision with other watercrafts). The EMP specifies appropriate conditions preventing situations that pose a risk to human health and safety from occurring and minimising their possible effects.

# Mitigation efforts and monitoring activities

Chapters 6 and 7, as well as Attachment 1 and 2 to the EMP feature a table which outlines a list of mitigation efforts and monitoring activities aiming to eliminate or restrict a negative impact of the Task on the environment and to ensure that the terms and conditions of the EMP are properly implemented. These efforts and activities include terms and conditions specified during the notification of works and derogation decision as well as terms and conditions set out while preparing the EMP.

# Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

#### **Social consultations**

Chapter 8 of the EMP features the report on the social consultations carried out as part of the procedures related to the Environmental Impact Assessment of the Task, including:

- social consultations regarding the document *Environment and Social Management Framework (ESMF)* for the OVFMP Project (2015);
- information on social consultations carried out at the stage of submitting the notification of planned activities on the basis of art. 188 of Nature Conservation Act (2019)
- the social consultations for this Environment Management Plan (2019).

## 1 INTRODUCTION

This Environmental Management Plan (EMP) refers to the Task 1B.4/2 *Dredging of Klucz - Ustowo ditch* constituting a part of the Subcomponent 1B, as part of the Odra-Vistula Flood Management Project (OVFMP) and performed as a *Contract for Works:* 1B.4/2.

# 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 ensuring more effective protection against summer floods, winter floods and flash floods.

The project consists of five components (including three investment components and two institutional-organizational components):

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

Subcomponent 1A – Flood protection of areas in Zachodniopomorskie Voivodeship;

Subcomponent 1B – Flood Protection on the Middle and Lower Odra;

Subcomponent 1C – Flood protection of Słubice City.

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

Subcomponent 2A – Active protection;

Subcomponent 2B – Passive protection.

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

Subcomponent 3A – Flood Protection of Cracow and Wieliczka;

Subcomponent 3B – Protection of Sandomierz and Tarnobrzeg;

Subcomponent 3C – Passive and Active Protection in Raba Sub-basin;

Subcomponent 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 (<a href="http://www.odrapcu.pl">http://www.odrapcu.pl</a>) and on the website of the World Bank (<a href="http://documents.worldbank.org/curated/en/docsearch/projects/P147460">http://documents.worldbank.org/curated/en/docsearch/projects/P147460</a>).

# 1.2 FLOOD PROTECTION OF THE MIDDLE AND LOWER ODRA (COMPONENT 1 OF THE OVFMP)

Component 1 of the OVFMP: *Flood protection of the Middle and Lower Odra River* aims to provide flood control measures through strengthening the protection against summer and winter floods in towns along the Odra.

The following three Subcomponents are the part of the Component 1:

Subcomponent 1A – Flood protection of areas in Zachodniopomorskie Voivodeship;

# Subcomponent 1B – Flood Protection of the Middle and Lower Odra;

Subcomponent 1C – Flood protection of Słubice City.

#### **Subcomponent 1B** comprises the tasks listed herein below:

- Task 1B.1/1 (a). Reconstruction of the Odra River control infrastructure adjusting to the III class of waterway, on the section from the village of Ścinawa to the estuary of the Nysa Łużycka River Stage I.
- Task 1B.1/1 (b). Reconstruction and Odranization of river control infrastructure on the Odra River. Restoring the conditions of navigability of the waterway (1 bridge Krosno Odrzańskie) Section: From the city of Scinawa to the mouth of the Nysa Luzycka River,
- 1B.2. Modranization works on boundary sections of Odra River:
  - 1B.2 Stage I Modernization works on boundary sections of Odra River to provide good condition for ice –breaking,
  - 1B.2 Stage II Reconstruction of River Control Infrastructure.
- 1B.3. Construction of a docking and mooring infrastructure:
  - 1B.3/1 Stage I Construction of a mooring base for the icebreakers,
  - 1B.3/2 Stage II Construction of docking-mooring infrastructure on Lower Odra River and boundary sections of the Odra River as well as new aids to navigation,
- 1B.4/. Improving the flow of flood water from Dabie Lake in winter months and dredging of Klucz Ustowo ditch,
  - 1B.4/1 Improving flood water-flow from Dabie Lake in winter,
  - 1B.4/2 Dredging of Klucz Ustowo ditch,
- 1B.5. Reconstruction of bridges to ensure a minimum clearance,
- 1B.6. Flood protection of Nowa Sol and below Krosno Odrzanskie.

# 2 TASK DESCRIPTION

Dredging of Klucz - Ustowo ditch constitutes the subject matter of this EMP. State Water Holding Polish Waters Regional Water Management Authority in Szczecin is the Project Implementation Unit for the Task.

In relation to the environmental screening specified in the Environment and Social Management Framework for the OVFMP, the proposed works are listed as item ID 3\_390\_O (reference number: 586) on the List 1, Attachment 2 to the Master Plan for the area of the Odra river basin (2014) "Investments which have no negative impact on achieving a good condition of waters or do not deteriorate their condition".

# 2.1 TASK LOCATION

The Task will be located within the Zachodniopomorskie voivodship, Międzyodrze, in the area of Kołbaskowo and Gryfino communes. The works will be carried out in Klucz - Ustowo ditch (the Skośnica) and within the surface water body (SWB) PLRW6000211971 — the Odra between the Western Odra and the Parnica. Klucz - Ustowo ditch (the Skośnica) is a water canal of the total length of approximately 2.7 km, connecting the Eastern Odra at its 730.5<sup>th</sup> kilometre with the Western Odra at its 29.8<sup>th</sup> kilometre and constituting an inland waterway of international importance, waterway class Vb.

RW60001719752 RW60001619729 RW6000211971 Legenda ■■■ Przekop Klucz-Ustowo Granica Zlewni JCWP

The figure below presents the location of the Task against borders of Surface Water Bodies.

Fig. 1 Location of the Task against the background of drainage basins of uniform surface water bodies (SWB)

RW60001619389

Source: Own study using OpenStreetMap; licence: http://www.openstreetmap.org/copyright

# 2.2 THE OUTLINE OF THE TASK

The Task will be carried out within the area of Klucz - Ustowo ditch (the Skośnica), located within the area of Kołbaskowo and Gryfino communes, directly adjacent to the city of Szczecin. Klucz - Ustowo ditch is a water canal of the total length of approximately 2.7 km, connecting the Eastern Odra at its 730.5<sup>th</sup> kilometre with the Western Odra river at its 29.8 kilometre, and constituting an inland waterway of international importance, waterway class Vb.

The dredging is designed to increase the depth of the existing fairway, which also serves as ice protection during the winter season. The use of Klucz – Ustowo ditch to protect against ice is connected with the ice breaking actions carried out on the Lake Dabie. In case of blockage of the Lake Dabie, Klucz - Ustowo ditch is used to carry out a broken ice float to the Western Ider river. The Klucz - Ustowo icebreaking action on the Klucz - Ustop is carried out when, despite intensive work of icebreakers on the Lake Dabie and on the Internal Sea Waters (Szczecin Świnoujście navigation channel), it is not possible to drain ice from the lower and border section of the Odra river. The icebreaking action through Klucz - Ustowo ditch is also sometimes carried out in the case of permanent occurrence of winds from the east and the impossibility of the ice float outflow from the Lake Dabie towards the Baltic Sea. Bearing in mind the use of the Klucz - Ustowo ditch in the ice protection system described above, it is advisable that it should have the same depth as required for the Lake Dabie.

In Klucz - Ustowo ditch, in some places there are shallows, the depth of the cut in these places reaches the values of about 2.7 m and 2.5 m (to the level of mean water level at the gauges in Podjuchy and the Most Długi bridge). Due to the function of the Klucz - Ustowo ditch in the flood protection, it should have a greater depth than is currently required for the cut for the inland navigation purposes. Klucz - Ustowo ditch is an alternative way of draining the ice float in particularly unfavourable conditions, so having it deeper will reduce the risk of significant ice jam in the ditch created by ice flowing from the Eastern Odra river and the border section of the Odra river. That, in the event of inability to conduct ice-breaking operations on Lake Dąbie, will provide for more efficient ice jam transfer towards the Western Odra river.

The scope of works covers dredging of the material from the bottom of Klucz - Ustowo ditch (of the total length of approx. 2.7 km) and aims to establish the required depth of the navigation channel, pursuant to the Agreement of 27<sup>th</sup> April 2015 between the Governments of the Republic of Poland and the Federal Republic of Germany on a mutual improvement of the conditions on the waterways of the Polish and German borderland (flood control, navigation and flow conditions). Dredging works will be carried out over the whole length of the ditch, pursuant to the guidelines of the aforementioned Polish-German Agreement. The implementation of the Task will enable efficient ice protection and navigation of ice-breakers taking part in the ice breaking action in this section of the river.

The works cover primarily extracting the material from the bottom of the cut with the use of a suction dredger and storing it on a dump barge or a barge. The material from the bottom of the cut will be churned up with a dredger suction cutter's head and pumped onto transport equipment. Other type of dredging equipment, for instance a clamshell dredger, may be used only in specific instances i.e. the finishing works (such as shaping slopes of navigation channel or eliminating shallow areas in certain places) if such instances are deemed necessary after dredging has been finished and depth sounding has been carried out.

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

The works will be performed only within the area of the fairway, no works on the cut's banks and on land are planned.

Execution of the Task is planned between January 2020 and the end of December 2021, however actual dredging works shall be carried out between the 1<sup>st</sup> August and the 31<sup>st</sup> December in given years.

The spoil will be transported by barges or dump barges to the Mańków deposition field (commune of Stępnica). The Mańków silting field, which is administered by the Maritime Office in Szczecin, is located in the technical zone of the bank of internal sea waters. It is located on the eastern bank of the Szczecin Lagoon - in its southern part, in the immediate vicinity of the Świnoujście - Szczecin navigation channel. The legal basis for the use of the silting field of Mańków is the water law permit (reference: WOŚ.II.7322.7.21.2015.WI of 30.03.2016) granted by the Marshal of the Zachodniopomorskie Voivodeship to the Maritime Office in Szczecin. The water law permit imposes conditions and obligations on the field operator, which consist in protection of the local soil and water environment and minimising the impact on protected areas and species. In particular, the requirements concerning the protection of the white-tailed eagle and the "Olszanka" nature reserve were taken into account. Conditions to use the deposition field will constitute the subject of a contact entered between the Contractor and the operator of the deposition field.

# 3 INSTITUTIONAL, LEGAL AND ADMINISTRATIVE CONDITIONS

# 3.1 Institutions engaged in the execution of the Task

The State Water Holding Polish Waters Regional Water Management Authority in Szczecin, acting on behalf of the State Treasury, is the Investing Party for the Task. For current coordination of the Project implementation by PIU, an organizational unit called Odra-Vistula Flood Management Project Coordination Unit was established. Moreover, the execution of the Task requires involvement of public administration authorities regarding administrative decisions necessary pursuant to the Act on Environmental Protection or agreements concerning safety od navigation.

# 3.2 BINDING NATIONAL LAWS REGARDING THE ENVIRONMENT

Pursuant to the Polish law, in scope of environmental protection, the investment process is regulated by several acts and ordinances. Attachment 3 to the EMP lists selected basic legal acts regarding the above mentioned matter and binding for the duration of drawing up of the EMP. The number and the contents of those acts is prone to changes due to any changes implemented to the national laws on the environmental protection. In each case, the Contractor is obliged to abide by all Polish regulations binding for the duration of the Contract.

## 3.3 EIA PROCEDURE IN POLAND

The description of the Environmental Impact Assessment procedure applicable in the Polish jurisprudence is included in the *Environment and Social Management Framework* (ESMF) published, among other places, on the Odra-Vistula Flood Management Project Coordination Unit's <sup>1</sup> and the World Bank's websites<sup>2</sup>.

#### 3.4 WORLD BANK'S GUIDELINES

The Task is co-funded with the funds of IBRD by the World Bank; the conditions of its execution regarding the environmental protection comply with applicable Operational Policies and Bank Procedures including, among other things, *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 above mentioned policies and procedures are available in the document *The World Bank Operational Manual*<sup>3</sup>, whereas their descriptions are to be found, inter alia, in the *Environment and Social Management Framework (ESMF)*.

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<sup>&</sup>lt;sup>1</sup> On the website: <u>http://www.odrapcu.pl/popdow\_dokumenty\_RPZSiSS.html</u>.

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

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

# 3.5 CURRENT STATUS OF THE EIA PROCEDURES FOR THE TASK

Pursuant to the national legal requirements, more specifically Section 118 of the Act on Environmental Protection, the Regional Director of the Environmental Protection in Szczecin was formally notified about the planned implementation of the Task. Pursuant to legal regulations, the Regional Director of the Environmental Protection rejects a notification about a task and demands a decision on the conditions of carrying out works in case the execution of a task infringes the regulations on the forms of nature conservation or on protected areas specified in the Act of 18<sup>th</sup> April 1985 on inland fishery, and in case a task deteriorates the environment's condition, especially if it has a major negative impact on the protection goals for given protected areas, infringes bans existing in those areas, or has a major negative impact on natural habitats, protected plants, animals or fungi, or their habitats.

Should carried out works possibly have a major impact on Natura 2000 areas, the Regional Director of Environmental Protection, while issuing a decision in which he obliges the parties to obtain a decision on the conditions of carrying out works, orders to carry out an assessment of the impact of the works on Natura 2000 sites.

The Regional Director of the Environmental Protection in Szczecin, having analysed the information included in the notification, did not object to the future activities outlined therein – notification of 29/03/2019, reference number: WOPN-ON.670.47.2019.PW). Therefore, he concluded that the Task does not have a potential major impact on Natura 2000 sites.

The Minister of Marine Economy and Inland Navigation, having analysed the information included in the water law notification, did not object to the future activities outlined therein (announcement of 16/11/2018, reference number: DOK.DOK3.9701.19.2018.US; PW-65427).

The Task does not qualify as an undertaking which always has a major impact or a potential impact on the environment; such undertakings are listed in the Ordinance of the Council of Ministers of 9<sup>th</sup> November 2010 on undertakings which might have a major impact on the environment (Journal of Laws of 2016, item 71, as amended) and therefore, the Task does not require obtaining a decision on environmental constraints.

An administrative derogation decision required pursuant to the Act on Environmental Protection was obtained for the purposes of the Task. This decision grants exemptions from bans set forth in plant and animal protection rules:

Decision of the Regional Director of Environmental Protection in Szczecin of 14/06/2019, reference number: WOPN-OG.6401.02.134.2019.MK, WOPN-OG.6401.03.12.2019.MK, WOPN-OG.6401.04.11.2019.MK, WOPN-OG.6401.06.06.2019.MK, WOPN-OG.6400.71.2019.AJ : permission granting exemptions from bans set forth in plant and animal protection rules.

Nonetheless, the Contractor is obliged to obtain all further administrative decisions and permissions necessary for the execution of works, should such a need arise.

## 4 DESCRIPTION OF ENVIRONMENT FEATURES NEAR THE TASK

# 4.1 LAND SURFACE AND LANDSCAPE

The Task will be located within the area of the Zachodniopomorskie voivodship, next to the southern border of the city of Szczecin, within Klucz - Ustowo ditch connecting the Eastern Odra river with the Western Odra river. Pursuant to the physical and geographical division of Poland<sup>1</sup>, the investment will be carried out in the Lower Odra Valley mesoregion. The Odra riverbed near Widuchowa is divided into two arms: The Western Odra and the Eastern Odra, connected by numerous branches, and the bottom of the valley is marshy. The Western Odra is the primary bed of the Odra, but nowadays most of its waters flow along the Eastern Odra, which on the section from Widuchowa to Gryfino was created as an artificially made cut. The Eastern Odra forms a large lake – the Lake Dabie near Szczecin.

The task does not concern the transformation of the terrain surface and the introduction of changes in the landscape. The whole project will be carried out within the existing navigation channel of the Klucz - Ustowo ditch.

# 4.2 CLIMATE

The climate in Szczecin is mostly shaped by the physiographical conditions, the proximity of the sea, and the presence of large manufactures and industrial plants. The city is located in the area where the impact of maritime air masses is affected by maritime polar air masses and continental polar air masses. The sea, the location, and large bodies of water and forests attribute to the climate of mild winters and chilly, wet summers.

Winds blowing from south-east are dominant, most commonly present in June, July, September, November, and December. Easterly and north-easterly winds are most common in April and May<sup>2</sup>.

spatial data. Geographia Polonica, vol. 91, no. 2, pp. 143-170. https://doi.org/10.7163/GPol.0115

<sup>&</sup>lt;sup>1</sup> Jerzy Kondracki: Geografia regionalna Polski. Warszawa: PWN, 2002 / Solon J., Borzyszkowski J., Bidłasik M., Richling A., Badora K., Balon J., Brzezińska-Wójcik T., Chabudziński Ł., Dobrowolski R., Grzegorczyk I., Jodłowski M., Kistowski M., Kot R., Krąż P., Lechnio J., Macias A., Majchrowska A., Malinowska E., Migoń P., Myga-Piątek U., Nita J., Papińska E., Rodzik J., Strzyż M., Terpiłowski S., Ziaja W., 2018. Physicogeographical mesoregions of Poland: Verification and adjustment of boundaries on the basis of contemporary

<sup>&</sup>lt;sup>2</sup> Air Resolution No XXXVI/1067/17 of the Szczecin City Council of 19 December 2017 on the Environmental Protection Programme of the City of Szczecin for the years 2017-2020 with a perspective for the years 2021-2024.

# 4.3 AIR QUALITY

The air quality was based on the annual assessment of the air quality in Zachodniopomorskie voivodship from 2016<sup>1</sup>. Human activity is the emitter of air pollutants in Szczecin. It includes: industrial and power emissions, so-called low-stack emission from households and small businesses, and exhaust fumes. Moreover, the weather conditions favour ozone formation. In 2016, the air quality standards in Zachodniopomorskie voivodship were breached in case of two pollutants: small particulate matter or particles PM10 and benzo[a]pyrene present in PM10. Similarly to the previous years, the high volume of those two pollutants were present in heating seasons. Low-stack emissions from households are indicated as the reason for breaching the standards of air quality. Szczecin has not exceeded the 24-hour concentration level of PM10. The level of the average concentration of benzo[a]pyrene, however, has been exceeded.

# 4.4 SURFACE WATER

The works will be carried out in Klucz - Ustowo ditch (the Skośnica) and within the surface water body (SWB) PLRW6000211971 – the Odra between the Western Odra and the Parnica.

The SWB is an abiotic type 21 (large lowland river), severely changed part of water, mainly due to the morphological changes of the river channel made to enable navigation and provide flood control for the areas adjacent to the river channel. The length of the SWB equals 70.29 km and the area of the SWB's sub-basin is 137.52 km<sup>2</sup>.

In the case of the discussed SWB, there is a large degree of man-made changes which qualified the SWB as heavily converted area of water for which the environmental aim is to achieve a proper ecological potential and chemical condition. However, due to man-made changes, this SWB faces a threat of not achieving its environmental goals. Pursuant to the Odra<sup>2</sup> River Basin Water Management Plan, a derogation of 4(4) - 1 was set for a given SWB and the deadline for achieving the environmental objectives was extended to 2027 on the grounds of lack of technical possibilities. No reason for exceeding quality indicators was identified within the SWB's sub-basin. As a result, it was decided that a detailed examination of the causes is essential in order to properly plan corrective actions. Pinpointing the causes of bad conditions will be achieved by undertaking actions at the national level. This entails setting up a national database of hydro-morphological changes, conducting a comprehensive analysis of pressure factors regarding hydro-morphological changes, drawing up good practice rules regarding hydro-technical works and maintenance works, together with a plan of their implementation, and drawing up a national plan of re-naturalization of surface water bodies.

The soil from Klucz - Ustowo ditch river basin is not contaminated – sampling was carried out in April 2017 and samples were analysed in an accredited laboratory in May and June 2017.

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<sup>&</sup>lt;sup>1</sup> Air quality monitoring system, WIOŚ 2017

<sup>&</sup>lt;sup>2</sup> Ordinance of the Council of Ministers of 18 October 2016 on the Water Management Plan for the Odra River Basin District (Journal of Laws of 2016 item 1967).

Pursuant to "the report on analysis of soil sample extracted during dredging works in Klucz - Ustowo ditch" (National Research Institute of Animal Production, National Laboratory for Feedingstuffs, Laboratory in Szczecin, 08/06/2017) the analysed material does not contain any components exceeding the maximum values specified in Attachment 1, Item 11 to the Ordinance of the Minister of Environment of 11<sup>th</sup> May 2015 on recovery of waste material outside installations and equipment (Journal of Laws of 2015, item 796).

# 4.5 UNDERGROUND WATER

The area of the investment lies outside the boundaries of the Main Groundwater Aquifers (GZWP). According to the division of Poland into 172 Groundwater Bodies (GWB), the Task area lies within the area of the GWB No 4, labelled as PLGW60004. Pursuant to the Polish Geological Institute's study entitled: "Monitoring of the chemical condition and assessment of the condition of groundwater bodies in river basins between 2012 and 2014", the general condition of the above-mentioned GWB in 2012 was deemed satisfying and likely to achieve its environmental goals.

# 4.6 ACOUSTIC ENVIRONMENT

No human-caused sources of noise pollution are present within the Task implementation area. Temporary noise emissions are related to using the Klucz – Ustowo ditch as a waterway; noise is emitted by waterborne transport equipment.

# 4.7 WILDLIFE

The Task will be carried out in Klucz - Ustowo ditch (the Skośnica). The cut is located within the area of the following Natura 2000 sites:

- The Lower Odra Valley PLB320003
- The Lower Odra PLH320037

The location of the Task against the boundaries of the Natura 2000 sites is outlined in Attachment 6a to the EMP.

The Lower Odra Valley Natura 2000 site takes up the total area of 616.48 km² and covers the Odra Valley between Kostrzyn and the Szczecin Lagoon (length: approx. 150 km), together with the Dabie Lake. The area is an European rank bird sanctuary.

The Lower Odra Natura 2000 site PLH320037 takes up the total area of 304.58 km² and covers the Odra Valley (with two main channels: The Eastern Odra and the Western Odra), stretching over the length of approx. 90 km. The area features wetlands with peat bogs and meadows flooded in spring, alder forests and riparian forests, old river beds, and numerous river branches and islands. Well-preserved and protected habitats are present within the boundaries of the region.

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

Due to the location of the Task within the area of environmentally valuable regions, the preproject stage, before the pre-construction notification, featured a detailed wildlife inventory which results are outlined below.

#### Macrobenthos and malacofauna

An assessment of macrobenthos was carried out prior to the execution of the Task. It was carried out pursuant to the method of "The outline of the multihabitat sampling of benthic macroinvertebrates (RIVECOmacro) in large rivers in Poland for the ecological status assessment, within the WFD regulations" <sup>1</sup>. For the purposes of the assessment, sampling was carried out in two terms: 26/06/2017 and 22/09/2017, this is during the largest taxonomic diversity of macrobenthos. Benthic invertebrates were marked up to the rank of family. The samples were also analysed against the presence of protected and rare species. Malacofauna was marked up to the rank of species.

The general density of macrobenthos in particular stations remained between over 750 and 960 specimen/m<sup>2</sup>. The maximum values of density were observed in September. The groups which contributed to the highest density levels were: earthworms (*Oligochaeta*), larvae of *Chironomidae*, and *Crustacea* with *Gammaridae* and *Mysidacea* among them. No protected and rare taxa were observed. Alien species were largely present in the composition of Klucz - Ustowo ditch benthos; these were particularly *Crustacea* (*Gammaridae* and *Mysidacea*).

The Malakofauna Klucz-Ustowo was very poor and characterized by a very low density. Only 2 species of snails and 4 species of bivalves were found. They were commonly found taxa.

The assessment of the ecological status of waters based on the MMI PL analysis showed a class V water quality for samples taken in June, and a class IV for September samples and maximum values obtained in June and September. On the basis of the results of the surveys described above, it was concluded that Klucz – Ustowo ditch is not environmentally valuable in terms of the occurrence of macrobenthos or malacfauna, and its ecological potential is low.

#### Ichtyofauna (fish)

The results of the ichtyofauna inventory indicate that the water in the cut feature spawners of roaches and perches, young burbots, spined loaches, pikes, bleaks, gudgeons, breams, chubs, and ides, as well as singular specimen of three-spined sticklebacks, rudds, and daces. During the inventory of protected species present in the cut, the spined loach (*Cobitis taenia*) was found in water next to the banks.

# Herpetofauna (amphibians and reptiles)

<sup>1</sup> B. Bis, A. Mikulec, The outline of the ecological status assessment of rivers in Poland, based on the benthic macroinvertebrates assemblages, BMŚ, Warsaw, 2013.

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

The edible frog (*Pelophylax sp.*) was the most common representative of amphibians observed in the area of the cut. This is most probably a mixed population of *P. ridibundus* and *P. kl. esculentus* which use this area as a habitat, as well as a feeding and breeding grounds. The population is large in numbers and has up to 1000 specimen. The habitat's parameters, established during the wildlife inventory, indicate that the area is perfectly suitable for the edible frog (*Pelophylax sp.*) and not appropriate for other species of amphibians found: European fire-bellied toad (*Bombina bombina*), European tree frog (*Hyla arborea*), European green toad (*Pseudepidalea viridis*), natterjack toad (*Epidalea calamita*), brown frog (*Rana sp.*), European toad (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*), and northern crested newt (*Triturus cristatus*).

### **Entomofauna (insects)**

Three species of protected insects were found during the wildlife inventory. These are: buff-tailed bumblebee (*Bombus terrestris*), red-tailed bumblebee (*Bombus lapidarius*), and Leather beetle (*Carabus coriaceus*). The two latter species were observed only in once during all observation procedure. Both buff-tailed bumblebee and red-tailed bumblebee are species inhabiting open, rural areas such as fields and meadows. Their presence within the inspected area shall be considered temporary, even more so since only adult specimen searching for flowers were observed during the whole assessment period. No nests of these species were found. The *Carabus coriaceus* prefers wooded and dry areas. It is rarely observed in other habitats. This species was observed only once in the assessed region, during the wildlife inventory carried out in June (1 specimen). The area of the cut is extremely wet. This impacts the number of specimen of this species. It shall be noted that despite finding the abovementioned species in the area, the region is not crucial for these species due to the lack of nesting places (moisture) and scarcity of host plants.

### Chiropteran fauna (bats)

Observations of the chiropteran fauna were carried out in order to fully assess the environmental conditions of Klucz - Ustowo ditch. The observations covered the area along the cut and on its banks. The inventory was carried out along a water transect of the length of approximately 2 km. The observations of the chiropteran fauna in the section of the Odra where the Task is to be executed, along with its river banks, indicated that there are 7 species of bats present within: nathusius' pipistrelle (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pygmaeus*), soprano pipistrelle (*Pipistrellus pygmaeus*), common noctule (*Nyctalus noctula*), serotine bat (*Eptesicus serotinus*), daubenton's bat (*Myotis daubentonii*), and pond bat (*Myotis dasycneme*). All bats used the cut as a feeding ground. All of the above-mentioned species are under strict protection in Poland and require active protection.

#### **Mammals**

The area of the planned investment was inspected against the presence of protected mammal species. Line transect sampling along the cut and its buffer zone (50 metres) was carried out. The transect was conducted both from water and from land. The following species of mammals

# Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

were observed within the area: common shrew (*Sorex araneus*), Eurasian pygmy shrew (*Sorex minutus*), European water vole (*Arvicola amphibius*), harvest mouse (*Micromys minutus*), Eurasian beaver (*Castor fiber*), stoat (*Mustela erminea*), and Eurasian otter (*Lutra lutra*).

# Ornithofauna (birds)

The wildlife inventory of ornithofauna in Klucz - Ustowo ditch was carried out prior to executing the Task. Twenty species of birds were found in the area of the cut; a part of them was observed in wooded areas along the cut, whereas 8 species were noted in wetlands.

The list of breeding birds in Klucz - Ustowo ditch area

English name	Latin name	Number of specimen (Number of pairs)	Biotope
Savi's warbler	Locustella luscinioides	4	W
European greenfinch	Chloris chloris	+	F
Common wood pigeon	Columba palumbus	+	F
Common blackbird	Turdus merula	+	F
Gadwall	Anas strepera	1	W
Mallard	Anas platyrhynchos	2-3	W
Marsh warbler	Acrocephalus palustris	+	F
Linnet	Cannabina cannabina	+	F
Eurasian blue tit	Cyanistes caeruleus	+	F
Common chiffchaff	Phylloscopus collybita	+	F
White wagtail	Motacilla alba	+	F
Dunnock	Prunella modularis	+	F
Common reed bunting	Emberiza schoeniclus	+	W
Sedge warbler	Acrocephalus schoenobaenus	+	W
European robin	Erithacus rubecula	+	F
Eurasian wren	Troglodytes troglodytes	+	F
Great reed warbler	Acrocephalus arundinaceus	3	W
Eurasian reed	Acrocephalus scirpaceus	+	W
warbler	Tierocepiuius scirpuceus	ı	**
Common chaffinch	Fringilla coelebs	+	F
Common kingfisher	Alcedo atthis	1	W

Description. Biotope: W – species nesting in wetlands, F – species nesting in forest and wooded areas, + – presence confirmed without specified number of specimen.

Moreover, migratory birds were observed within the inspected area:

• great cormorant (*Phalacrocorax carbo*) – not observed in a breeding period (April-July), observed regularly since August with a maximum number of 30 specimen in November. The birds were feeding in water and resting on nearby trees;

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

- mallard (*Anas platyrhynchos*) apart from breeding birds, groups of 5-12 specimen were observed since the end of June;
- grey heron (<u>Ardea cinerea</u>) during the whole observation period only few birds were observed (1-3 specimen);
- white-tailed eagle (*Haliaeetus albicilla*) one specimen resting on the trees was regularly observed;
- European honey buzzard (*Pernis apivorus*) observed once, it was circling over the cut.

#### Flora and natural habitats

One protected species was observed within the area; this was sea garden angelica (*Angelica archangelica ssp. Litoralis*), which is dispersed along both banks of the cut. The population of plant in 2017 stood at approximately 250 specimen.

No protected fungi were found in the area.

The only type of natural habitat present within the inspected area are willow riverine forests labelled as 91E0 (*Salicetum albo-fragilis*) growing along the southern bank of Klucz - Ustowo ditch .

Outside the Task implementation area, in the canals of Międzyodrze and along the banks of Regalica (Eastern Odra) at the level of Szczecin's Żydowce-Podjuchy-Zdroje residential areas, in 2017 the sites of the water chestnut (*Trapa natans*) were identified. This species is most abundant in the Obnica Północna Canal, where it grows along the banks of almost the entire length of the canal (about 2.5 km), which connects with the Klucz - Ustowo ditch. From the Obnica Północna Canal, the species spreads along the western bank of the Regalica over the distance of approximately 3.5 km, reaching north to the area of Siedlinska Kepa. The population of the species is numerous and strong, occupies a vast area and enlarges it annually. All the time, however, it has an initial character (young), as evidenced by the concentration of most individuals in the water region where the Lower Odra river was colonised (the Obnica Północna Canal). The species is ranked on the European red list of vascular plants. In Poland the water chestnut is a very rare plant.

# 4.8 OTHER PROTECTED AREAS

The Task will be carried out in the area of the Lower Odra Valley Landscape Park, established on the 1<sup>st</sup> April 1993 pursuant to the Ordinance No 4/1993 of the Governor of Szczecin (Szczecińskie voivodship's Official Journal of Laws No 4, item 50). The planned activities regarding water management do not interfere with the bans specified in the Ordinance No 9/2005 of the Governor of Zachodniopomorskie voivodship of 25<sup>th</sup> May 2005 on the Lower Odra Valley Landscape Park.

The spatial forms of nature conservation are located within the following distances from the area of the planned Task (only distances up to 5 km are listed herein below).

# Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

Name	Distance [km]
Nature reserve	
Kurowskie Błota	Approx. 0.7
Bukowskie Zdroje named after Profesor Tadeusz Dominik	Approx. 3.4
Kanał Kwiatowy	Approx. 3.5
Wzgórze Widokowe nad Międzyodrzem	Approx. 4.5
Zdroje	Approx. 4.7
Landscape parks	
Lower Odra Valley Landscape Park	the whole area
Szczecin Landscape Park "Puszcza Bukowa"	Approx. 2.4
Nature and landscape complex	
Zaleskie Łęgi	Approx. 3.3
Natura 2000 bird special protection areas	
The Lower Odra Valley PLB320003	the whole area
Natura 2000 habitat special protection sites	
The Lower Odra PLH320037	the whole area
Wzgórza Bukowe PLH320020	Approx. 2.1
Ostoja Wełtyńska PLH320069	Approx. 3.5
Documentation sites	
Margle kredowe nad jeziorem Szmaragdowym (Chalk marls by the Emerald Lake)	Approx. 4.8
Ecological sites	
Island Klucki Ostrów	Approx. 0.5
Valley Trawiasta Dolina	Approx. 3.2
no name	Approx. 3.9

Source: own study based on the data from the Geoservice of the General Inspectorate for Environmental Protection in Warsaw (http://geoserwis.gdos.gov.pl/mapy/)

The location of the Task against the boundaries of forms of nature conservation is outlined in Attachment 6b to the EMP.

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

Moreover, the activities of the Task will be carried out near fish protected areas indicated in the Ordinance 10/99 of the Governor of Zachodniopomorskie voivodship of 22<sup>nd</sup> December 1999 on establishing protected areas in the Odra, the Western Odra, the Eastern Odra, the Regalica, and canals in Międzyodrze (Journal of Laws of Zachodniopomorskie voivodship, No 51, item 749). The Task implementation area constitutes a direct vicinity of the protected areas listed herein below (description pursuant to Attachment 1 of the above-mentioned Ordinance of the Governor of Zachodniopomorskie voivodship):

The list of protected areas in the Odra, the Western Odra, the Eastern Odra, the Regalica and Międzyodrze canals next to Klucz - Ustowo ditch .

No.	Specification of water bodies	Place description	Protected area
20	The Western Odra	Two kilometres upwards from Klucz - Ustowo ditch (the Skośnica)	2000 m
22	The Międzyodrze area	The Obnica Canal, in the southern direction from a lock next to Klucz - Ustowo ditch	400 m
26	The Eastern Odra	The Klucki Canal, westwards from Szczecin – Klucz	the whole area

The location of the Task against the boundaries of fish protection areas is outlined in Attachment 6c to the EMP.

# 4.9 CULTURAL HERITAGE OBJECTS

No historic monuments or sites are present within the Task implementation area and the task area lies outside of any conservation areas.

#### 4.10 People and Material Goods

The site on which the Task will be carried out lies in a distance from any built-up areas. The works will be performed in water and within green areas.

## 5 SUMMARY OF ENVIRONMENTAL IMPACTS

#### 5.1 LAND SURFACE AND LANDSCAPE

The Task execution will not impact the land surface and landscape as the works will be carried out only within the area of Klucz - Ustowo ditch 's watercourse. No construction site's back-up facilities are to be set up along Klucz - Ustowo ditch. The Contractor shall organise back-up facilities by himself and use already existing water infrastructure. No changes to the land surface outside Klucz - Ustowo ditch are planned.

# 5.2 CLIMATE

The execution of the Task will not have a major impact on the climate, both during the execution stage and during the operation of the object.

Hence, no mitigation efforts and monitoring activities relating to the climate are put forward.

# 5.3 AIR QUALITY

Internal combustion engines of dredger cutters and waterborne transport equipment will be the main sources of pollution during the execution of the Task. The negative effect of the Task's execution on the air will be minor and restricted solely to the areas which lie in the closest vicinity of the Task.

It was decided, however, that in order to restrict the impact of the construction works on the air quality, the mitigation efforts outlined in Attachment 1 to the EMP shall be implemented.

# 5.4 SOIL AND LAND

The execution of the Task will not impact the soil and land in the Task's vicinity as the works will be carried out only within the area of Klucz - Ustowo ditch 's navigation channel. The land outside the cut's watercourse will not be used and transformed – see Section 5.1.

The works will be mainly based on extracting the material from the bottom of the cut with the use of a dredger cutter and storing it on a dump barge or a barge. Other types of equipment, for instance a clamshell or backhoe dredger, may be used only in specific instances i.e. the finishing works (such as forming slopes of navigation channel or eliminating shallow areas in certain places) if such instances are deemed necessary after dredging has been finished and depth sounding has been carried out. The extracted material will be transported on water to an existing Mankow dredged sediments silting area (Stepnica commune) managed by the Maritime Office in Szczecin. The extracted sediments will not be stored within the area of the Task.

It was decided, however, that in order to restrict the impact of the construction works on the soil and land quality, the mitigation efforts outlined in Attachment 1 to the EMP shall be implemented.

# 5.5 SURFACE WATER

The Task will be executed within the drainage basin of the Surface Water Bodies (SWB) RW6000211971 of the Odra, between the Western Odra and the Parnica.

The Task will be carried out within the area of Klucz - Ustowo ditch (the Skośnica), which is a branch of the Eastern Odra at its 730.5<sup>th</sup> kilometre and connects this river to the Western Odra at its 29.8<sub>th</sub> kilometre. The length of the cut and the scope of planned works constitutes approx. 3.8% of the total length of the SWB's water courses.

The Task execution might temporarily decrease the surface water's condition due to the works carried out in the cut's river channel, which might result in a larger amount of sediments in the water. Due to a relatively small spatial scale of the Task compared to the whole are of the SWB, the scope of negative impacts will be minor, should all suggested mitigation efforts regarding the method (the use of dredger cutters for the majority of dredging works) and the date of carrying out works be applied. Such an impact will be short-termed and reversible.

The soil from the river bed of Klucz - Ustowo ditch is not contaminated and hence, there is no hazard of contaminating the surface water.

Klucz - Ustowo ditch is an anthropogenic cut connecting the Western Odra with the Eastern Odra and it is regularly deepened, the last time in 2011/2012.

Therefore, no major and permanent impacts which will compromise achieving environmental goals set forth for this SWB in the current Odra River Basin Management Plan are assumed.

The execution of the Task requires a constant supply of fuel. Fuelling up will take place only in a specially designated place. Equipment and chemical agents (sorbent agents) for eliminating spillages will be provided, pursuant to the Spillage Procedure (Section 6.14).

The mitigation efforts specified in Attachment 1 to the EMP shall be implemented to prevent any potential negative impacts on the condition of the surface water (especially due to accidental spillage of petroleum products) during the performance of the Task.

# **5.6** Underground water

The performance of the Task will not affect underground water; exploitation and intake of underground water will not be conducted, no contamination sources for underground water will be present.

The area of the Task lies within the area of the Groundwater Body (GWB) PLGW60004, outside the Main Groundwater Acquifers.

The mitigation efforts specified in Attachment 1 to the EMP shall be implemented to prevent any potential negative impacts on the condition of the groundwater during the performance of works.

#### 5.7 WILDLIFE

The execution of the Task was preceded with a wildlife inventory, on the basis of which appropriate mitigation efforts were drawn up. Details of the wildlife inventory results were outlined in section 4.7.

# **Ichtyofauna**

The results of the ichtyofauna inventory indicate that the water in the cut feature spawners of roaches and perches, young burbots, spined loaches, pikes, bleaks, gudgeons, breams, chubs, and ides, as well as singular specimen of three-spined sticklebacks, rudds, and daces. Due to the planned dredging works which generate noise and vibrations, the above-mentioned species of fish are expected to flee the area. However, dredging will be performed by churning up the land at the riverbed with the use of the dredger cutter's head and then pumped onto waterborne transport equipment. Larger mobility of sediments (increased availability of previously inaccessible food) caused by the first dredging may result in the creation of so called ecological traps, cutting off the escape routes for some fish, or even burying some fish attracted to new sources of food. To avoid or minimise the risk of creating so called ecological traps, the works will be carried out in such a way as to ensure that fish will be able to escape into the Odra. This means launching the works at one end of the cut and heading towards the other end. The spined loach (*Cobitis taenia*) was found in water next to the cut's banks during the protected wildlife inventory.

Previous wildlife monitoring activities carried out in Poland indicate that soil and water contamination, as well as regulation and re-shaping of river channels, have the greatest negative impact on the population of the spined loach. Less intensive impacts occur due to fertilization and growing crops, water eutrophication, poaching, and fishing. Yet, the main threats to the population of the spined loach are: the construction of shoreline reinforcements which decrease the number of habitats in a river channel, extraction of material from a river channel which results in destruction of typical habitats (sand, underwater plants) which stand crucial for breeding, deterioration of water quality due to sewage and eutrophication, as well as deterioration of the hydromorphological conditions of rivers due to hydrotechnical works.

The execution of the Task will not entail any of the above-mentioned impacts. The scope of planned works will be spatially restricted only to the navigation channel. Carrying out works at the cut's banks is not planned, nor is any interference in reed beds along the shore. Both work parameters and the fact that the works will be carried out in a safe distance from the cut's banks should guarantee that those habitats of the spined loach which are located near the shores remain safe from harm. The negative impact of works on the ichtyofauna will be restricted due to the choice of method of carrying the works, i.e. suction dredging as a main method of carrying out works. This will minimise increase of suspended solids in water and worsening of oxygen conditions. Moreover, a potential negative impact on ichtyofauna will be minimised as a result of scheduling works outside the closed/protection season for fish and implementing additional mitigation activities, in case of observing fish migration during the works. During the spawning period of the majority of fish species inhabiting the Lower Odra River (March-June), dredging works will not be carried out, as the sensitivity of fish eggs and hatching to the inflow of suspended solids is much higher than in the case of older fish development stages.

# Herpetofauna

The results of the herpetofauna observation activities indicate that the given area is mostly inhabited by the edible frog. The population is large in numbers and has up to 1000 specimen.

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

Potential threats to the edible frog and other observed species are: partial loss of their habitats (their habitats will most probably be restored given enough time), the risk of scaring animals off, and the risk of accidental killing of single representatives of this species during the works. Long-term effects detrimental to the continuity of the species or its population size are not forecast. Additionally, the species' habitats will not be exposed to a long-term and significant change. These species are resistant to such changes and exist in large numbers in the neighbourhood of the area of the Task. Hence, there is no need of adjusting the project to the rules of amphibian and reptile protection.

# Chiropteran fauna

The results of the chiropteran fauna observation carried out within the area of the Task and on the nearby river banks indicate that the region is inhabited by bats, which use the cut as their feeding ground. Due to the presence of hollowed trees, a few potentially valuable areas which may be used as breeding grounds for bats were identified on the cut's banks.

Bat populations are dynamic. This means that the location and size of their colonies change each year and, which entails changes to their feeding patterns. The interference in the cut's profile and depth might result in changes to the quality of insect habitats, and consequently render bat feeding grounds in this area temporarily unattractive. This effect will come to pass after the works have been finished, however.

The Task does not cover activities which will have a significant impact on the population of bats. These are:

- interference in areas which may constitute future breeding grounds for bats due to the presence of hollowed trees,
- intensive illumination of the area which will scare bats away from their breeding grounds and hideaways,
- carrying out works within the bat breeding period (June).

#### **Mammals**

The wildlife inventory covered those mammal species which are protected pursuant to the national laws specified in the Attachment to the Habitats Directive, endangered on the territory of Poland, and entered into the IUCN Red List. The following species were found in the area of the Task: common shrew, Eurasian pygmy shrew, European water vole, harvest mouse, Eurasian beaver, stoat, and Eurasian otter. As a result of the limited scope of works, the lack of interference in the land area, and a relatively short period of carrying out the Task, no significant impact on the above-mentioned species is expected.

#### **Ornithofauna**

Twenty species of birds were found in the area of Klucz - Ustowo ditch; a part of them was observed in wooded areas along the cut, whereas 8 species were noted in the wetlands.

Moreover, migratory birds were observed within the inspected area. Taking into consideration the type, scope, time, and scale of the planned Task, as well as the results of the wildlife inventory, it must be reiterated that carrying out the works outside the bird breeding period will obviously have no negative impact on this period. The dredging is scheduled to be performed between August 1<sup>st</sup> and December 31<sup>st</sup>. The birds which are nested in the area of the Task will definitely be scared off during the performance stage and, most probably, will move to the neighbouring areas. Yet, this shall not be qualified as a major impact as all impacts will cease to exist after the Task has been completed.

#### Flora and natural habitats

Only one legally protected species was found within the area of the investigation. This is the sea garden angelica which is dispersed along both shores of the cut. No protected fungi were found in the area. The only type of natural habitat present within the inspected area are willow riverine forests labelled as 91E0 and growing along the shores of the cut.

The main ecological factor detrimental to the characteristic of riparian forests are water conditions, particularly those related to vertical and horizontal water movement. The frequency and the length of flooding, as well as underground water movement are determinant to the specification of particular subphyla of this habitat. Due to the scope of the Task and the fact that the works will not be carried out on the cut's banks, no threat to and physical destruction of riparian forests growing on the southern shore and habitats of the sea garden angelica will occur.

Moreover, dredging works will not affect the groundwater movement, so crucial to the aforementioned habitats.

#### Water chestnut

A separate issue is the need to protect the sites of the water chestnut (*Trapa natans*), the presence of which was found in the canals of Międzyodrze in 2017. This species is most abundant in the Obnica Północna Canal and the population in the Obnica Północna Canal is clearly of the source population for the entire meta-population of the water chestnut in the Lower Odra river. In order to protect the water chestnut population, threats to the population have been identified in relation to carrying out works in the Klucz-Ustowo ditch in order to determine the required mitigation actions. In the context of the planned hydro-technical works in the Klucz-Ustowo ditch, the risk factors for the water chestnut population include:

- 1) contamination of water with pollutants released as a result of failure of the equipment used (especially during the works at the estuary of the Obnica Północna canal and upstream of the estuary),
- 2) contamination of groundwater with toxic substances released from bottom sediments during dredging works (especially during the works at the estuary of the Obnica Północna canal and upstream of the estuary),
- 3) movement of sediments and their drifting by waters flowing into the Obnica Północna canal in an amount that may result in chestnut fruit burial to an extent that limits seed

germination or results in silting the canal accelerating its biological succession (slowing down the flow of water and overgrowing).

The Task implementation will be carried out in a way that should effectively secure the water chestnut population in and upstream of the Obnica Północna Canal, in particular limit the release of suspended solids during the execution of works. Additionally, mitigation actions have been introduced, dedicated to the protection of this species.

To summarise the above-presented information on the impact of the Task on particular wildlife species, it must be emphasised that the execution of the Task will not affect protected areas and will not have a major impact on protected species. The impact on the environment during the construction and post-construction stage will be minor and restricted to the Task implementation area.

The removal of the sediment from Klucz - Ustowo ditch's riverbed will be the direct result of the Task. This sediment material is not environmentally valuable as it is not rich in macrobenthos and malacofauna, whereas the habitats and the population of species residing in the area of the ditch is forecast to be restored after approximately a 3-year period.

Implementation of the mitigation efforts specified in Attachment 1 to the EMP and section 6.8 are essential to ensure the protection of wildlife.

#### 5.8 ACOUSTIC ENVIRONMENT

Typical noise emission related to the dredging works will occur: i.e. noise emissions due to the operation of dredger cutters and transport equipment.

No impact on the acoustic environment, particularly outside the Task implementation area, i.e. on land, is forecast after the Task has been completed.

It was decided, however, that in order to restrict the impact of the works on the acoustic environment, the mitigation efforts outlined in Attachment 1 to the EMP shall be implemented.

#### 5.9 CULTURAL HERITAGE OBJECTS

The Task implementation area is not entered into the Register of Historic Monuments and lies outside of any conservation area. Considering the type and scope of the works, and the lack of historic monuments within the area of the Task's impact, no threat to and effect on historic monuments is forecast.

It was decided, however, that in order to restrict the impact of the works on the cultural landscape and historic monuments, the mitigation efforts outlined in Attachment 1 to the EMP shall be implemented.

#### 5.10 MATERIAL GOODS

In terms of material goods protection, the execution of the Task will reinforce ice breaking activities, thus influencing flood control measures in the areas of the Odra Valley. There are no buildings or other infrastructure facilities which would be under any hazard due to the carried out works within the vicinity of the Task.

It was decided that in order to restrict the impact of the works on the material goods, the mitigation efforts outlined in Attachment 1 to the EMP shall be implemented, particularly those mitigation efforts which relate to water transport of the sediment material extracted from the riverbed, as well as watercrafts used during the Task's execution stage.

#### 5.11 HUMAN HEALTH AND SAFETY

The impact on human health and safety during the execution of the Task may be related to the factors listed herein below:

- a risk of a collision with other watercrafts, which poses a threat both to the personnel carrying out works and the personnel of watercrafts taking part in such a collision (shipping incident see: Section 5.12),
- higher water levels on the Odra, which pose a threat both to the working site and watercrafts taking part in the works,
- a risk of drowning,
- finding of unexploded ordnance

Necessary procedures shall be designed and implemented to minimise the risk of potential hazards. It was decided that in order to restrict the impact of the works on human health and safety, the mitigation efforts outlined in Attachment 1 to the EMP shall be implemented.

#### 5.12 EXTRAORDINARY HAZARDS TO THE ENVIRONMENT

Due to the type of the Task, no risk of extraordinary hazards to the environment arise as a result of its execution.

However, the following crisis situations which may pose a threat to the environment may arise during the execution of the Task:

- Flood
- Leakage of petroleum products (POLs)
- Finding of unexploded ordnance
- Fire
- Shipping incident

Drawing up and implementing necessary procedures is crucial in order to minimise the risk of the above-mentioned hazards. In order to prevent and limit hazards during the execution of the Task, the mitigation efforts outlined in Attachment 1 to the EMP shall be implemented.

#### 5.13 CUMULATIVE IMPACT

The task of "Dredging of the Klucz - Ustowo ditch" is planned to be implemented within the framework of the Odra - Vistula Flood Management Project. Within the framework of the Odra - Vistula Flood Management Project, the following Tasks are to be carried out on the Lower Odra and Border Odra sections:

- 1B.2 Modernisation works on the border Odra River.
- 1B.3/1 Construction of berthing and mooring base.
- 1B.3/2 Construction of berthing and mooring infrastructure on the Lower and Border Odra River and new marking of the shipping lane.
- 1B.4/1 Improvement of floodwater flow in the winter period from the Lake Dabie.
- 1B.4/2 Dredging of the Klucz-Ustowo ditch.
- 1B.5 Reconstruction of bridges for the purpose of ensuring minimum clearance (in particular the railway bridge on the Regalica River in Podjuchy and the road bridge on the Warta River in Kostrzyn).

The scope of works to be carried out will be limited to the fairway only. The execution of dredging works will lead to the lifting of sediments from the bottom and to the increase in the suspended solids present in the surface water. This impact will be limited by the way the works are carried out, i.e. by silting, which will limit the increase in suspended solids concentration and the deterioration of oxygen conditions. Moreover, it is planned to limit the works to the daytime, i.e. until 5 p.m., as well as to introduce breaks (stoppages) in the execution of works during the day. This allows the impact to be defined as local, periodic, short-term and reversible and thus to exclude the likelihood of occurrence of a cross-border impact.

The issue of accumulation of impacts in this case can only be considered in the context of temporary parallel implementation of those of the above mentioned tasks located at the nearest distance, providing the basis for the analysis of potential accumulation of impacts, i.e. reconstruction of the bridge in Podjuchy (Task 1B.5) and construction of the base for icebreakers (1B.3/1), which will take place at the distance of about 2.5 km and more than 3 km from the project site in question, respectively. Due to the distance of the discussed projects from each other, and in particular due to the small scale of the Task in question and the locality of its defined impacts, there will be no accumulation of impacts, including also those related to the emission of noise related to the construction works, emission to air or spreading of suspended solids. At the same time, the planned works in the Klucz-Ustowo ditch bed located in the Międzyodrze area will not be cumulated with the works in the scope of the Task 1A.3 "Restoring the natural values of the Lower Odra Valley by improving the retention and flood prevention capacities of Międzyodrze", due to the abandonment of the implementation of this project.

Therefore, the possibility of accumulation of impacts of the above mentioned projects with the investment in question was not diagnosed. For the planned project in connection with the assumed dredging works technology, no significant, particularly negative impacts are expected

in the scope of air pollution, noise emission and surface and groundwater pollution, as well as impact on natural elements.

Thus, the implementation of the project will not cause the accumulation of negative impacts with the existing or planned projects in the vicinity.

All predicted negative impacts on the environment will be of a local nature and will not cause exceeding the acceptable standards beyond the borders of the investment area. All nuisances will be of a periodic nature, closely related to the construction phase.

#### 5.14 Cross-Border IMPACT

The Klucz-Ustowo (Skośnica) ditch is a 2.7 km long water canal connecting the Eastern Odra at km 730.5 with the Western Odra at km 29.8. The planned investment will be implemented in its entirety in the territory of the Republic of Poland, at the distance of 9 km, in a straight line, from the state border with the Federal Republic of Germany.



Fig. 2 Location of the Task against the background of state administrative borders

Source: Own study with the use of OpenStreetMap; licence: http://www.openstreetmap.org/copyright

#### Key:

Przekop Klucz – Ustowo -Klucz – Ustowo ditch

Granica administracyjna państwa - State administrative border

Therefore, bearing in mind mainly the location and distance of the place of carrying out the planned works within the Klucz-Ustowo ditch, there is no possibility of cross-border impact on

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

the areas located outside borders of Poland. Moreover, the scale and scope of the works planned to be carried out, definitely allows to exclude the possibility of cross-border impact of dredging works. The selected dredging technology is to extract material from the bottom of the cut by means of a dredger cutter and store it on a dump barge or a barge, and then deposit the spoil in the silting field.

In conclusion, due to the location, character and scope of the planned project, the possibility of cross-border environmental impact of the project, both at the stage of execution and operation is not envisaged.

#### 6 DESCRIPTION OF MITIGATION EFFORTS

Attachment 1 to the EMP presents a set of mitigation efforts obligatory for the Contractor, aiming to mitigate negative effects of the Task on the environment. Such activities were designed on the basis of the terms and conditions of the administrative decisions regarding environmental protection issued for the Task (including the pre-construction notification documents specified in Section 3.5), supplemented by additional terms and conditions agreed upon during drafting of the EMP. Selected mitigation efforts, divided into particular environmental features, and specified in Chapter 5 of the EMP, are listed herein below, whereas Attachment 1 to the EMP features the unabridged list of the mitigation efforts.

#### 6.1 LAND SURFACE AND LANDSCAPE

The execution of the Task does not result in any alteration to the land surface and landscape. No on-shore construction back-up facilities are to be set up within the area of Klucz - Ustowo ditch.

There is no need for implementing mitigation efforts regarding the protection of the land surface and landscape during the Task's execution.

#### 6.2 CLIMATE

There is no need for mitigation efforts regarding local climate conditions protection for the duration of the Task's execution.

#### 6.3 AIR QUALITY

The Contractor shall implement, among other things, the following mitigation efforts aiming to decrease/eliminate the negative impact exhaust fumes emissions from internal combustion engines might have on the air quality:

- dredger cutters and waterborne transport equipment used during the execution stage must be fully operational and must conform to all binding laws regarding exhaust fumes emission;
- operation time of internal combustion engines of dredger cutters and waterborne transport equipment at a standstill shall be limited (during so-called idle running).

The procedures regarding restricting negative impact on the air quality are listed in the table in Attachment 1 to the EMP, items 30-32 (category F – Procedures regarding prevention of environmental pollution, including restriction of emissions to the environment).

#### 6.4 SOIL AND LAND

Carrying out works outside the area of Klucz - Ustowo ditch and temporary occupation of land for construction back-up facilities is not planned during the execution stage of the Task.

Additionally, a ban on setting up on-shore back-up facilities, roads, and technological facilities along Klucz - Ustowo ditch was imposed – Item 6 (category C – Procedures regarding location of the construction back-up facilities, roads, technological and storage sites, and parking areas)

in the table in Attachment 1 to the EMP. Additionally, a ban on carrying out works on shores of Klucz - Ustowo ditch (the Skośnica) and adjacent land, also within the area of reed beds was imposed – Items 21 and 22 (category E – Procedures regarding securing protected natural environment resources) in the table in Attachment 1 to the EMP.

The material extracted by dredger cutters will be transported to a dredged material silting area. Conditions related to the use of the silting field are specified in items 7-11 (category D - Procedures regarding management of dredged material).

#### 6.5 SURFACE WATER

In order to minimise the impact of works on the surface water regarding the increased content of sediments and lowered oxygen conditions in the water of the ditch, suction dredgers (silting) will be used for the majority of dredging. A small inclination angle of the slopes (1:3) will be taken into consideration while carrying out dredging works. This will prevent displacement of the river banks.

Mitigation efforts and special procedures will be implemented in order to prevent water contamination with petroleum products and to ensure removal of contamination if it pollutes the environment. In case of leakage of petroleum products into the surface water, the Contractor is obliged to immediately curb spreading of pollutants and to mechanically collect petroleum products (POLs) from the water surface. The watercrafts used during the execution of the Task have to be equipped with leakage removal equipment such as: POLs sorbents, flexible containment barriers, pneumatic oil barriers, and sorption equipment. Moreover, prior to the execution of the Task, the Contractor shall draw up a Leakage Procedure, outlining the procedures of dealing with a potential POLs leakage.

The Contractor is obliged to use fully operational equipment in a way that does not pose any hazard to water. Mitigation efforts and prevention activities against negative impact during the construction stage regarding the protection of surface water are outlined in Attachment 1 to the EMP, particularly in the following items in the table:

- Items 19, 23 (category: E Procedures regarding preservation of protected natural resources),
- Items 24-29 (category: F Procedures regarding prevention of environmental pollution, including restriction of emissions to the environment).
- Items 35, 36 (category: G –Procedures regarding waste material and sewage)
- Item 48 (category: I Procedures regarding extraordinary hazards to the environment),

#### **6.6** Underground water

The Task does not have a negative effect on the condition of underground water. Additional mitigation efforts regarding restriction of impacts on underground water, apart from those specified in surface water and soil protection, are deemed not necessary (pursuant to Chapters 6.4. and 6.5).

#### 6.7 ACOUSTIC ENVIRONMENT

The planned works will not exert a negative impact on acoustically protected areas. The following mitigation efforts will be implemented to limit the intensity of noise emission impact during the performance of works:

- a) the time the dredging equipment and waterborne transport equipment operating on socalled idle-running will be restricted;
- b) dredging equipment used will be fully-operational and not emitting over-normative noise.

The following items in the table in Attachment 1 to the EMP are particularly important mitigation efforts regarding noise emission:

• 30-32 (category: F – Procedures regarding prevention of environmental pollution, including restriction of emissions to the environment).

#### 6.8 WILDLIFE

#### 6.8.1 NATURAL HABITATS, FLORA AND FAUNA

A number of mitigation efforts which are to be implemented during the execution stage were proposed in order to prevent or limit potential negative effects on the nature.

The Contractor shall provide a schedule of works in which dredging dates conform to the EMP and to the pre-construction notification filed to the Regional Director of the Environmental Protection in Szczecin. This entails:

- minimising the impact on fish, birds, and bats by selecting dates outside of the fish closed season and bird and bats breeding period (accepted dates of works: between August 1<sup>st</sup> and December 31<sup>st</sup>);
- implementing additional mitigation efforts such as performing works during daylight (up to 5 p.m.) and taking breaks during a day, in case a migration route in autumn or grouping of juvenile perches and zanders in winter is observed – conditional mitigation efforts outlined in Item 18 (category E – Procedures regarding securing protected natural environment resources) of Attachment 1 to the EMP shall be implemented.

The aim of the time restrictions is to prevent impacts of the works on certain animal species in periods when they are particularly susceptible thereto.

In order to limit negative effects of dredging on fish, a method of suction dredging will be implemented to minimise increase of content of suspended solids and worsening of oxygen conditions in the water. Additionally, in order to protect fish, taking brakes in dredging is expected if suspended solids exceed the accepted values. This is pursuant to Item 23 (category: E – Procedures regarding securing protected natural environment resources) of Attachment 1 to the EMP.

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To minimise the risk of creating so called fish ecological traps, the works will be carried out in such a way as to ensure that fish will be able to escape from the ditch into the Odra river. This means launching the works at one end of the ditch and heading towards the other end.

An environmental supervision will be established. It will comprise of Contractor's environment experts and will be tasked with, among other things, verifying whether the above-mentioned additional mitigation efforts regarding fish should be implemented and whether the works are carried out pursuant to the derogation decision granting exemption from the rules of species protection (the decision was mentioned in Section 3.5 and included in Attachment 5).

In relation to the need to secure the water chestnut population (outside the Task implementation area, in the Obnica Północna canal adjacent to the Klucz - Ustowo ditch), in addition to the above mentioned activities (in particular in the area of minimisation of suspended solids growth), mitigation actions dedicated to this species were introduced in the EMP. These include, among other things, time limitations for the execution of works in the area of the Obnica Północna estuary, exclusion of floating equipment traffic associated with the planned works in the Obnica Północna canal and protection of the water chestnut population by means of transferring selected specimens (rosettes) obtained from various locations within the Obnica Północna:

- Prior to commencing the works between June 20 and August 31, the Contractor's environmental supervision team, will execute nature inventory of the Klucz-Ustowo ditch to identify the presence of locally expansive protected species (such as water chestnut (*Trapa natans*), *Salvinia natans*, *Nymphoides peltata*).
- Prior to commencing the works, the Contractor will secure a part of specimens from the water chestnut population (50 rosettes) acquired most of all from Klucz-Ustowo if the presence of the species is found and next from various locations where the species is abundant within the Obnica Północna canal between 20th of June and 31st of August). The collected specimen of water chestnut will be transferred to a replacement site (e.g. in the Obnica Południowa canal, located vis a vis Obnica Północna canal in the area of Międzyodrze, at least 100 away from the former lock connecting this canal with the Klucz Ustowo ditch).
- In the case of identifying the presence of the above-mentioned protected species in the Klucz-Ustowo ditch, it is recommended to transfer all specimens of these plants to the Obnica Południowa canal.
- In the absence of plants in the Klucz Ustowo ditch, water chestnut specimen can be acquired from Obnica Północna canal after documenting the resources of this species the number of rosettes acquired for transfer can not be greater than 1% of the resources of the local part of the population.
- The activity will be carried out under the supervision of the Contractor's environmental supervision team that would also be responsible to secure necessary derogation decisions in respect to protected species.

The transfer of a part of individuals from the abundant population to a replacement site is a way to increase the chances of maintaining such a population. The action is planned as a

precautionary/protection measure in connection with the planned works, which should result in water chestnut settlement on a new site where the population should have a chance to develop. This will help to improve the prospects for the protection of the water chestnut population not only on an *ad hoc* basis in connection with the planned works, but also in the long term prospects. With the assumed scenario of changes in the environment that do not pose a significant threat to the initial population, the plants on the replacement site should be preserved on the site, permanently increasing the chances of maintaining the species in the Lower Odra valley.

If protected wildlife natural habitats be found during the execution stage, and if it is decided that dealing with such habitats might infringe the binding provisions of law, appropriate decisions granting exemptions from the bans shall be obtained. The Contractor is obliged to implement the requirements specified in the above mentioned decisions to the letter and within an appointed time limit.

The Contractor shall provide its management staff and technical-engineering staff with a training session on the terms and conditions of the EMP. The training shall cover the procedures in case of potential hazards to the environment. The Contractor and his team of environmental experts shall be responsible for the training.

The following items in the table in Attachment 1 to the EMP are particularly important mitigation efforts regarding wildlife protection:

- Item 12-23 (category: E Procedures regarding securing protected natural environment resources).
- Item 6 (category: C Procedures regarding location of the construction back-up facilities, roads, technological and storage sites, and parking areas),
- Item 56 (category: K procedures regarding restoring natural environment resources),
- Items 59, 60 (category: L Requirements regarding the Contractor's staff engaged in the execution of EMP),
- Items 67 70 (category: N Dedicated measures to protect the water chestnut population (*Trapa natans*) in the Obnica Północna Canal).

#### **6.8.2 PROTECTED AREAS**

While performing the works, The Contractor is obliged to abide by the norms, bans, and recommendations, and to respect restrictions arising from the presence of areas and objects protected under the Environmental Protection Act. In order to eliminate threats to water creatures in Natura 2000 sites within Klucz - Ustowo ditch, dredging will be carried out after fish closed season and birds and bats breeding period (see: Section 6.8.1.). Carrying out works outside the Klucz - Ustowo ditch channel and setting up on-shore construction back-up facilities along Klucz - Ustowo ditch is not planned.

The mitigation efforts adopted for the natural habitats and protected species are also applicable to the protection of natural values of the protected areas (see: section 6.8.1.)

#### 6.9 CULTURAL LANDSCAPE AND HISTORIC MONUMENTS

The collected knowledge and data regarding the planned Task indicate that it does not exert a direct negative impact on the cultural landscape and historic monuments. Nonetheless, the Contractor is obliged to implement prevention measures against potential negative effects which might arise during the implementation stage (and currently remain impossible to specify).

Pursuant to the Act of 23<sup>rd</sup> July 2003 on the protection of historic monuments (Journal of Laws of 2014, item 1446, as amended), one who, during construction or earthworks, uncovers an object and suspects it might be a historic monument is obliged to halt all works which might damage the objects, to protect them and the area of discovery with available measures, and to immediately inform the Provincial Monument Conservator, or if contacting that entity is not possible, the Governor of the Kołbaskowo commune and the Mayor of the city of Gryfino and the Gryfino commune. The Contractor also informs the Engineer of the discovery. In order to abide by the above-mentioned provisions of the EMP regarding the Cultural Heritage and Historic Monuments Protection, the Contractor will obtain, if needed, a permission from the Provincial Monument Conservator (PMC) to carry out rescue archaeology.

The mitigation efforts regarding protection of the cultural landscape and historic monuments are outlined in Attachment 1 to the EMP, Items: 54 and 55 (J – Procedures regarding cultural monuments protection)

#### 6.10 MATERIAL GOODS

The Contractor shall bear responsibility for any damage to buildings, navigation signs of waterways, other engineering facilities, and technical infrastructure caused by himself or his Subcontractors during the works, including the transport of equipment and extracted sediments. The Contractor shall repair all damage at his own expense and, if necessary, carry out other works ordered by the Engineer.

The execution of the works will be coordinated with the Office of Inland Navigation pursuant to the provisions indicated in section 6.14.

In order to minimise the risk of colliding with other watercrafts during the performance of works (including transport of equipment and extracted sediments) the Contractor shall bear responsibility for abiding by the inland navigation regulations, particularly those included in: the navigation regulations and decisions on local legal acts regarding waterways. This applies to both the Contractor's watercrafts, as well as those of the Subcontractors.

The whole set of mitigation efforts regarding the protection of material assets can be found in Attachment 1 to the EMP; these particularly are items 3-5 of the table in Attachment 1 to the EMP (category: B – Communication requirements in the Task implementation Area).

#### 6.11 HUMAN HEALTH AND SAFETY

Procedures regarding human health and safety related to a proper organisation of work, technical equipment, fire control measures, construction site, condition and use of equipment and vehicles, as well as training on HIV-AIDS spreading have been specified.

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The Contractor shall carry out works pursuant to the dredging schedule agreed upon with the Office of Inland Navigation in Szczecin. The execution of the works shall be included in an appropriate navigation bulletin of the State Water Holding Polish Waters RZGW in Szczecin.

The following guidelines are to be applied to water transport:

- Transport equipment have to conform to the applicable requirements and the regulations of the inland navigation binding in the Republic of Poland,
- Transport equipment's parameters have to be adjusted to the conditions of the waterway class.

The Contractor shall be responsible for proper marking of the Task implementation area (among other things, by placing an information board on land – a warning for anglers and strollers) and signalling of watercrafts (ships, water equipment, and other watercrafts) pursuant to the binding provisions of law, particularly to the Ordinance of the Minister of Infrastructure of 28<sup>th</sup> April 2003 on inland navigation regulations (Journal of Laws No 212, item 2072) and to decision on local legal acts regarding waterways. The marking and signalling equipment will be systematically inspected; The Contractor will immediately restore or supplement the marking should it become damaged or stolen.

The Contractor shall provide sapper's supervision (the Contractor's sapper's supervision) for the implementation stage; the team's aim will be to carry out inspections of the Task implementation area and removal and adequate disposal of military objects posing potential threat.

The Contractor shall organise a training session on the terms and conditions of the EMP for the managerial and technical-engineering staff.

The mitigation efforts related to the human health and safety are listed in Attachment 1 to the EMP; the following items of the table are particularly important:

- Items 45-53 (I Procedures regarding extraordinary hazards to the environment)
- Items 37-44 (H Procedures regarding human health and safety)
- items 71 80 (O Management strategies, ESHS implementation plans and specific ESHS policy requirements).

#### 6.12 EXTRAORDINARY HAZARDS TO THE ENVIRONMENT

#### Emergency situation

The following entities shall be firstly informed in case of an emergency situation:

Entity	Telephone no
Emergency telephone number	112
Police	997
State Fire Service	998
Emergency Medical Services	999
City Guard	986

The obligation to inform appropriate entities was included in item 46 of Attachment 1 to the EMP (category I – Procedures regarding extraordinary hazards to the environment).

#### Flood

Prior to the commencing of the works, The Contractor will develop a proper plan of action in case of floods (*Flood Control Plan for the duration of works*), to be approved by the Engineer. The document will outline, among other things, procedures in case of floods (see: Chapter 6.14.).

The obligation to develop a plan of action in case of floods is included in item 45 in Attachment 1 to the EMP (category I - Procedures regarding extraordinary hazards to the environment).

#### Leakage of petroleum material (POLs)

Another type of an extraordinary hazard is a leakage of petroleum products into water. In order to minimise the risk of environment pollution, special prevention measures will be implemented. These efforts include, among other things, providing proper organisation and equipment such as containment booms and systematic inspection of the dredging equipment used.

In case of a potential leakage of POLs, appropriate measures aiming to control the dispersion of pollutants shall be undertaken; additionally, such material shall be immediately disposed of. Moreover, prior to the execution of the Task, the Contractor shall draw up a Spillage Procedure outlining procedures of dealing with potential petroleum product spills.

Mitigation efforts, specified in Attachment 1 to the EMP, regarding the protection of the water environment are listed, in particular, in items: 26, 48.

#### Finding of unexploded ordnance

In case of finding unexploded ordnance during the works, such as artillery fuses, shells, aerial bombs, artillery shells and bullets, rocket-propelled grenades, grenades, all types of mines and

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explosives etc., the Contractor shall immediately halt the works, evacuate the staff and call the police, a licensed ordnance disposal unit, the Engineer, and the PIU.

Under no circumstances should unexploded ordnance found be picked up, unearthed, buried, transported and tossed into flames or such places as rivers, canals, old river beds, ditches etc. The Ordering Party did not carry out an inspection of the construction site regarding the presence of unexploded ordnance.

The Contractor is also obliged to ensure sapper's supervision during the earthwork (the Contractor's sapper's supervision) which consists in conducting ongoing inspections and clearing the area of dangerous items of military origin and their disposal.

The procedures regarding unexploded ordnance and providing munitions response are specified in the following items of Attachment 1 to the EMP:

- Item 39 (category: H Procedures regarding human health and safety)
- Item 47 (category: I Procedures regarding extraordinary hazards to the environment),
- Item 61 (category: L Requirements regarding The Contractor's staff taking part in the execution of the EMP).

#### Shipping incident

The Contractor shall be responsible for proper marking of the area where the Task is to be carried out (among other things, by placing an information board on land – a warning for anglers and strollers) and signalling of watercrafts (ships, water equipment, and other watercrafts) pursuant to the binding provisions of law, particularly to the Ordinance of the Minister of Infrastructure of 28<sup>th</sup> April 2003 on inland navigation regulations (Journal of Laws No 212, item 2072) and to decision on local legal acts regarding waterways. In case of a shipping incident, a director of an Inland Navigation Office having jurisdiction over a place of an incident shall be informed.

Applicable requirements are specified in the following items of Attachment 1 to the EMP:

- Items 3, 5 (category: B Communication requirements in the Task implementation Area).
- Items 49-53 (category: I Procedures regarding extraordinary hazards to the environment).

#### **Fire**

The Contractor shall bear responsibility for fire protection within the Task implementation area. Detailed procedures in case of fire will be specified in the SHP Plan drawn up by the Contractor (see Chapter 6.14.). The prerequisite of drawing up the SHP Plan by the Contractor and obtaining the Engineer's approval regarding its contents was specified in Item 37 (category: H – Procedures regarding ensuring human health and safety) in the table in Attachment 1 to the EMP.

#### 6.13 WASTE AND SEWAGE

The Task's execution will involve generation of waste, hence it is advised to minimise their quantity and negative impact on the environment for the duration of the works. The amount of waste generated during the construction stage shall be minimised. Waste material shall be segregated and systematically transported out of the construction site. Waste management shall be carried out pursuant to the regulations of the Act of 14<sup>th</sup> December 2012 on waste management, the Act of 21<sup>st</sup> December 2000 on inland navigation and the Waste Management Plan specified in Item 33 (category: G –Procedures regarding waste material and sewage) of Attachment 1 to the EMP.

Ship waste containing oil or grease, cargo waste, as well as sewage and municipal waste from ships and other watercrafts shall be stored on watercrafts in a way that prevents it from leaking into the environment. Ship waste shall be transported to ship waste receiving areas.

The extracted material shall be transported on barges and dump barges to a stockpiling area (dredged material silting area). During the execution of the Task, the Contractor shall systematically assess the quality of extracted material regarding potential changes in, among other things, colour, smell, and consistency. In case any changes be noted, the Contractor shall immediately halt the works, inform the Ordering Party of such changes, and commission an accredited laboratory to take samples and analyse it on the quality of extracted sediments. In case contaminated soil be found (this is soil in which acceptable concentration of substances is exceeded pursuant to the binding legal jurisprudence, i.e. the Act on Waste Management, the Environmental Protection Law, and executive acts of these laws), it shall be handed over to such entities which have appropriate permits regarding further management of contaminated soil. The dealing with dredged sediments and procedures of dealing with sediments shall be included by the Contractor in the Waste Management Plan and approved by the Engineer prior to commencing works.

The following items in the table in Attachment 1 to the EMP are particularly important mitigation efforts regarding waste material:

- Items 33-34 (category: G –Procedures regarding waste material and sewage)
- Item 7 11 (category: D Procedures regarding management of dredged material)

### 6.14 PROCEDURES REGARDING IMPLEMENTATION OF ROAD MAPS DURING THE CONSTRUCTION STAGE

Based on specific mitigation efforts set forth in this EMP, the Contractor shall draw up the following documentation necessary to conduct works, and obtain the Engineer's approval thereof:

The Contractor shall draw up the dredging plan, outlining both the method of marking the work site and the work schedule. The dredging plan will include the Safe Navigation Project that shall be handed over for approval to the competent waterway administration entity and the Inland Navigation Office in Szczecin, and the Maritime Office in Szczecin (in scope of the use of sea waters).

• *Dredging Plan* shall include information on:

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- watercrafts taking part in dredging works and transporting extracted material to a disposal area;
- dates of carrying out works in particular sections of the ditch;
- parameters of the sections of works, together with the method of its marking;
- specification of restrictions of waterway capacity arising from the planned works;
- the conditions and the area of watercraft bunkering (filling up with petrol);
- Safety and health protection plan (SHP plan) for dredging works.
- The Safe Navigation Project, which should include, *inter alia*:
  - indication of the boundaries of the waters occupied during the works,
  - data on the type of vessels authorised to carry out works,
  - information on working time per day,
  - data on navigation lights and signs,
  - temporary berths for vessels and mooring points,
  - equipment docking points at the end of work,
  - data on employee qualifications and supervision of employees,
  - radio communication data,
  - information on existing navigational markings and measuring instruments and how to protect them

The Safe Navigation Project should ensure the safety of vessels and vessels employed for the Task implementation.

- SHP Plan containing, among other things, such components as:
  - information on hazards which might occur during the execution of the Task, with details on their scale, types, location, and time.
  - information on location and marking of the works, according to their type of hazards.
  - information on methods of carrying out training sessions for employees prior to the performance of particularly dangerous works,
  - information on storing and transporting of hazardous materials, goods, substances, and preparations within the work site,
  - indication of technological and organisational measures preventing hazards arising from the performance of the works in areas, and near areas, of higher risk to human health, and providing safe and efficient communication allowing for quick evacuation in case of fire, breakdown or any other hazard.
  - indication of a place where work documentation and other files necessary for a proper operation of equipment will be stored.

The SHP plan (Safety and Health Protection Plan) plan will be prepared in accordance with the law in force. While drawing up the SHP Plan, the Contractor is obliged to emphasise safety of performance of works in which watercrafts are used. The works will be performed in weather conditions typical for autumn and winter. The characteristic of works performed in the river channel, as well as the work schedule shall be taken into consideration while drawing up the SHP Plan. Those factors impact, among other things, a decision on safety procedures of performing works and equipping the staff with appropriate personal protective equipment.

#### Furthermore, the Contractor shall prepare:

- Waste Management Plan containing, among other things, such components as:
  - types and quantity of waste material forecast to be generated,
  - prevention measures against negative impact of waste on the environment,
  - waste management methods, including their collection, transport, recovery, and ways of disposing of.
  - type of waste material generated and the method of its storing.

# The Contractor shall include the procedures regarding dredged sediments in the Waste Management Plan.

- Flood Control Plan for the Duration of Works which shall include, among other things, such components as:
  - Monitoring of the hydrological-meteorological situation,
  - 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 members of management during the flooding risk period,
  - A list of equipment and means of transport needed to conduct rescue operations.
- *Spillage Procedure* including, among other things, procedures in case of chemical substances and petroleum materials (POLs) leakage. These cover:
  - a method of equipping particular units with proper materials in relation to expected hazards and substances,
  - a method of raising alarm and contacting particular entities,
  - procedures of containing spills,
  - procedures regarding POLs sorption materials.
- ESHS Management Strategy and Implementation Plans (management strategy and implementation plans regarding environmental, social, health and safety hazards) which include, among other things, the following items:
  - description of measures adopted in order to manage the risks,

 description of materials used, equipment, description of management processes, etc., which shall be implemented by the Contractor and its Subcontractors to limit risks.

The Contractor should submit continuously for the Engineer's preliminary approval, additional ESHS Management Strategies and Implementation Plans that are necessary to manage the ESHS risk factors and the effects of the work implementation. Such Management Strategies and Implementation Plans together form Contractor's Environmental and Social Management Plan. (C-ESMP). C-ESMP shall be approved before the commencement of the Work.

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. The Engineer reviews and approves the above mentioned documents and monitor their proper implementation. The requirement of drawing up and obtaining approval of the documentation listed herein above was particularly indicated in Items 33, 37, 38, 45, 48, 52, 71 in the table in Attachment to the EMP.

# 6.15 SPECIFIC REQUIREMENTS FOR THE WORLD BANK'S ESHS POLICIES (ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY ASPECTS)

The Task implementation is related to the need to meet a number of ESHS requirements (environmental, social, health and safety aspects), which are regulated by national regulations governing environmental protection, health and safety at work and labour law. Their observance is supervised by state institutions and bodies. In particular, with regard to the observance of occupational health and safety regulations and labour law, the state health and safety inspection bodies and the state labour inspection are authorised to control the activities of entrepreneurs, including those on construction sites. However, due to the high importance of the World Bank's ESHS requirements, the terms of the contracts subsidised by the World Bank loan impose obligations to ensure the implementation of the binding regulations. Special attention is paid to issues such as:

- Protection of minors employed in the execution of the Contract
- Elimination of inappropriate conduct of persons employed in the execution of the Contract (including sexual harassment and mobbing)
- Ensuring the safety and health protection of persons employed in the execution of the Contract, including the employment of occupation health and safety staff as required by law
- Ensuring proper social and employment conditions for employees employed in the execution of the Contract (including fair pay conditions)

The following is a list of issues, in the form of requirements for the Contractor, related to ESHS WB policies. It should be noted that the ESHS requirements and conditions set for the Contractor and its employees also apply to the Contractor's Subcontractors and their employees or Subcontractors:

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- The Contractor shall conduct training and implement an awareness-raising programme
  on the prevention of sexual harassment and mobbing. These activities shall be carried
  out throughout the entire term of the Contract, including the period of notification of
  defects at least every two months. These will take the form of information, education
  and awareness-raising campaigns.
- The Contractor shall inform the Consultant immediately about all reported cases and suspicions concerning sexual harassment and mobbing.
- Contractor will inform all employees involved in the Task implementation on the possibility of lodging complaints about working and pay conditions and will provide an information leaflet with the necessary information on how to lodge complaints and requests, in which it will ensure that there are no repercussions for the person reporting a problem. The content of the leaflet will be agreed with the Consultant.
- The Contractor shall inform the Consultant about all accidents involving employees and
  bystanders in accordance with the procedure presented by the Consultant. In the event
  of an incidental event, the Contractor shall take all actions to which the Contractor is
  obliged by applicable laws, such as the Construction Law and the Labour Code, among
  others.
- The Contractor shall ensure equal pay for employees performing the same work without taking into account gender, sexual orientation or age, and in addition the persons employed for the Contract shall not be persecuted or discriminated against on the basis of gender, sexual orientation or age.
- The Contractor shall, in accordance with the possibilities and conditions and the Polish provisions of the Labour Code, satisfy the living and social needs of employees in the workplace.
- The Contractor shall make it easier for employees to improve their professional qualifications.
- The Contractor may employ only such a young worker who is 15 years old, has completed at least eight years of primary school and has submitted a medical certificate stating that the work in question does not endanger his or her health.
- The Contractor shall employ a health and safety specialist with qualifications and professional experience in accordance with the Polish labour law.

Therefore, in the table of mitigation actions in Attachment 1 to the EMP (items 71 - 80), detailed conditions binding on the Contractor of the works, covered by the obligation to monitor and report during the Task implementation period, were included. However, it should be stressed that the Contractor is obliged to apply and observe all provisions of the Labour Code and it shall act in accordance with the ESHS Code of Conduct.

#### 7 DESCRIPTION OF MONITORING ACTIVITIES

#### 7.1 Monitoring of environment during the construction stage

Attachment 2 to the EMP outlines a set of monitoring activities obligatory for the Contractor. These activities were designed on the basis of conditions specified in the pre-construction notification and binding administrative decisions issued for the Task, supplemented with additional conditions specified while drawing up the EMP.

Monitoring activities specified in Attachment 2 to the EMP in items 1-80 cover monitoring of implementation of mitigation efforts specified in Attachment 1 to the EMP.

Monitoring activities outlined in Attachment 2 to the EMP are connected to particular task groups set forth in Chapter 6.

Additionally, items 81 - 84 specify the requirements for environmental monitoring during the Task implementation period. In turn, item 85 sets out the obligations with respect to the ongoing control of compliance with the rules set forth in the Contractor's documents prepared for the purpose of the Task implementation.

#### 7.2 MONITORING OF ENVIRONMENT DURING THE OPERATION OF THE OBJECT

There is no need for monitoring of the environment during the operation stage. Implementation of the mitigation efforts allows to restrict potential negative effects to the execution stage only.

#### 8 SOCIAL CONSULTATIONS

# 8.1 Social consultations of the Environment and Social Management Framework for the OVFMP Project (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 social consultations process of the above-mentioned document is available on the website of the Odra-Vistula Flood Management Project Coordination Unit <sup>1</sup>:

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<sup>&</sup>lt;sup>1</sup> http://www.odrapcu.pl/popdow\_dokumenty\_RPZSiSS.html.

### 8.2 Social consultations at the stage of environmental procedures for the Task

Pursuant to the national legal requirements, more specifically Section 118 of the Act on Environmental Protection, the Regional Director of the Environmental Protection in Szczecin was formally notified about the planned implementation of the Task. Pursuant to legal regulations, the Regional Director of the Environmental Protection rejects a notification about a task and demands a decision on the conditions of carrying out works in case the execution of a task infringes the regulations on the forms of nature conservation or on protected areas specified in the Act of 18<sup>th</sup> April 1985 on inland fishery, and in case a task deteriorates the environment's condition, especially if it has a major negative impact on the protection goals for given protected areas, infringes bans existing in those areas, or has a major negative impact on natural habitats, protected plants, animals or fungi, or their habitats.

Should carried out works possibly have a major impact on Natura 2000 areas, the Regional Director of Environmental Protection, while issuing a decision in which he obliges the parties to obtain a decision on the conditions of carrying out works, orders to carry out an assessment of the impact of the works on Natura 2000 sites. Public participation is included in this assessment.

In reference to the doubts of the Save the Rivers Coalition (Koalicja Ratujmy Rzeki, KRR) regarding the approach to protection of the species water chestnut (Trapa natans) presented in the environmental documentation the meeting with the Save the Rivers Coalition was proposed by the Consultant. The meeting, which aim was to discuss the doubts, was held on 28 January 2019 at the Consultant's headquarters. Before the meeting, representatives of the Save the Rivers Coalition had been provided with a complete application for notification pursuant to art. 118 of the Act on nature protection of activities related to the dredging of the Klucz - Ustowo ditch. The Save the Rivers Coalition had also been provided with fragments of the EMP with the description of minimizing measures in relation to the protection of the water chestnut. At the consultant's request, the KRR also informed the Naturalists' Club (Klub Przyrodników) about the meeting. A note from the meeting constitutes Annex 12 to the EMP.

After the meeting with the Save the Rivers Coalition, a Consultant wanting to facilitate verification of the notification pursuant to art. 118 of the Act on nature protection by the representatives of the Save the Rivers Coalition, sent a notification draft containing comments that were made during the meeting and amended in accordance with the meeting's findings regarding the measures concerning of the water chestnut.

On February 7, 2019 Save the Rivers Coalition submitted comments to the notification which concentrated on topics related to the choice of the schedule of works in the context of the need to protect the fish fauna, survey methodology for aquatic mollusc fauna and fish fauna.

On February 18, 2019 Consultant transmitted updated document in which he referred to the comments - in the notification the request of the Save the Rivers Coalition to shorten the duration of works due to the need to protect fish fauna has been introduced as well as results of water chestnut survey carried out by the Western-Pomeranian Association of Natural Sciences (Zachodniopomorskie Towarzystwo Przyrodnicze) in 2018 have been included.

All protection measures as elaborated with the assistance of Save the Rivers Coalition have been included in the EMP.

The Regional Director of the Environmental Protection in Szczecin, having analysed the information within the announcement, did not object to the activities which are to be carried out – announcement of 29/03/2019, reference number: WOPN-ON.670.47.2019.PW).

Therefore, the execution of the Task does not require the Environmental Impact Assessment carried out with the public participation.

#### 8.3 Social Consultations of the EMP

Draft Environmental Management Plan (EMP) for the Contract 1B.4/2: The dredging of the Klucz-Ustowo ditch was subject to public consultations, conducted in accordance with the requirements of the World Bank's operational policy (OP 4.01). Their purpose was to enable natural persons, institutions and all interested parties to familiarise with the content of this document and to provide them with the opportunity to submit any comments, questions or requests to its content.

After the draft EMP had been developed, the document was submitted to the World Bank in order to obtain approval for the commencement of the publicising procedure. After obtaining the World Bank's approval for the commencement of the procedure of publicising the draft EMP, the electronic version of the document together with the announcement of the public consultations was published on the websites of:

- State Water Holding Polish Waters, Regional Water Management Board in Szczecin (Fig. );
- Odra Vistula Flood Management Project Coordination Unit (Fig. );
- Public Information Bulletin of the Szczecin City Hall (Fig. 5);
- wszczecinie.pl website (Fig. )
- Project website–bs.rzgw.szczecin.pl (Fig. )

The information on the possibility of familiarising with the content of the draft EMP and submitting requests and comments, together with the indication of contact details (e-mail address, addresses of places where the paper version of the document can be consulted, office hours) was made public in the local press. The announcement was published on 25.11.2019 in the local supplement to Gazeta Wyborcza (Fig. ) and in Kurier Szczeciński (Fig. ). The published Announcement also contains information about the place and date of the consultation meeting within the framework of the summary of public consultations of the draft EMP (with the date, time, address and purpose of the meeting given).

The information (Fig. 10) about the procedure of publicising the draft EMP and the possibility of submitting requests and comments was also sent by traditional mail and e-mail to the following institutions and organisations:

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

- Marshal of the West Pomeranian Voivodeship
- Mayor of the City of Szczecin
- Mayor of the Town and Municipality of Gryfino
- Ośrodek Inicjatyw Społecznych i Ekologicznych Stary Zagon [Stary Zagon Centre for Social and Ecological Initiatives]
- Instytut Rozwoju Terytorialnego [Institute for Territorial Development]
- Stowarzyszenie Nadodrzańskie Klimaty [Nadodrzańskie Klimaty Association]
- Zachodniopomorskie Towarzystwo Przyrodnicze [West Pomeranian Natural Society]
- Koalicja Ratujmy Rzeki [Save Rivers Coalition]
- Liga Ochrony Przyrody [League for Nature Conservation]
- Federacja Zielonych Gaja [Gaia Federation of Greens]
- Ogólnopolskie Towarzystwo Ochrony Ptaków [Polish Society for the Protection of Birds]
- Fundacja Greenpeace Polska [Greenpeace Foundation Poland]
- Stowarzyszenie Zielona Dolina Odry i Warty [Green Valley of the Odra and Warta Association]
- Polski Klub Ekologiczny Okręg Zachodniopomorski [Polish Ecological Club West Pomeranian District]
- Polski Klub Ekologiczny Zarząd Główny [Polish Ecological Club Board of Directors]
- Związek Stowarzyszeń Polska Zielona Sieć Biuro w Szczecinie [Polish Green Network Union of Associations Office in Szczecin]
- Stowarzyszenie Gmin Polskich Euroregionu Pomerania [Association of Polish Municipalities of the Euroregion Pomerania]
- Eko-Unia [Eco-Union] Stowarzyszenie Ekologiczne [Ecological Association]
- Fundacja WWF Polska [WWF Foundation Poland]
- Klub Przyrodników [Club of Naturalists]
- Fundacja Greenmind [Greenmind Foundation]
- Fundacja na rzecz Collegium Polonicum [Foundation for the Collegium Polonicum]
- Stowarzyszenie Miłośników Jeziora Dąbie "Ekodąb" ["Ekodąb" Association of the Lake Dabie Lovers]
- Stowarzyszenie Rybaków i Przedsiębiorców z Dąbia [Association of Fishermen and Entrepreneurs from Dabie]
- Towarzystwo Przyjaciół Rzek Iny i Gowienicy [Society of Friends of the Ina and Gowienica Rivers]
- Stepnicka Organizacja Turystyczna "Nie tylko dla Orłów" [Stepnica Tourist Organisation "Not only for Eagles"]

In order to ensure the widest possible access to the information on the draft EMP, it was decided that the paper version of the documentation would be made available to all interested parties in the period from 25 November 2019 to 09 December 2019 inclusive (i.e. 11 working days) at the premises of the following offices:

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

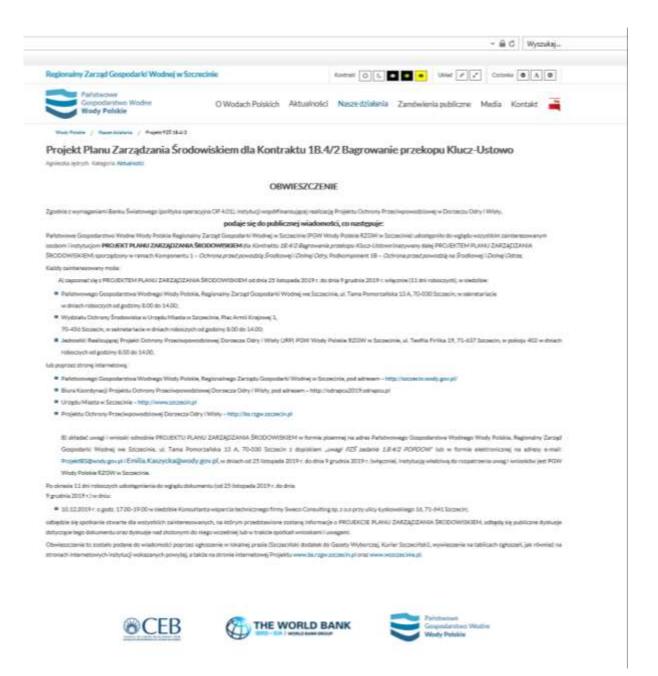
- State Water Holding Polish Waters, Regional Water Management Board in Szczecin, ul. Tama Pomorzańska 13A, 70-030 Szczecin;
- Project Implementation Office for the Odra Vistula Flood Management Project (PIO for the OVFMP), State Water Holding Polish Waters, Regional Water Management Board in Szczecin, ul. Teofila Firlika 19, 71-637 Szczecin;
- Department of the Environmental Protection in the Szczecin City Hall, Plac Armii Krajowej 1, 70-456 Szczecin

#### **Consultation meeting**

After the end of the period of publicising the draft EMP (the paper version of the documentation was made available to all interested parties in the period from 25 November 2019 to 09 December 2019 inclusive), an open meeting was organised for all interested parties. The meeting was organised on 10 December 2019 at the seat of the Technical Support Consultant of Sweco Consulting sp. z o.o. (ul. Łyskowskiego 16, 71-641 Szczecin). According to the notification, the meeting started at 5.00 p.m. The meeting was attended only by the representatives of the PIO and the Technical Support Consultant. For the needs of the meeting, a multimedia presentation was prepared containing information on the rules of preparing and functioning of the EMP during the implementation of investments co-financed by the World Bank and detailed information on the draft EMP for the Contract 1B.4/2: Dredging of the Klucz-Ustowo ditch Due to the lack of presence of people interested in the project, the meeting ended at 6:00 p.m.

#### COMMENTS RECEIVED DURING THE PERIOD OF PUBLICATION

No comments on its content or attachments were submitted in the course of the procedure of publicising the draft EMP.**Due to the above, the process of public consultations has been deemed completed** - the Consultant started to prepare a Report on public consultations of the draft EMP for the Task 1B.4/2. As the result of the auto-revision of the content of the draft document, minor editorial corrections were made, a supplement was added concerning the lack of possibility of occurrence of cross-border and cumulative impacts.



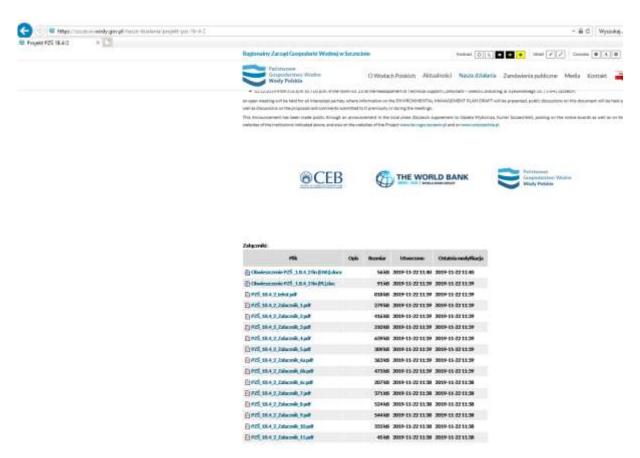


Fig. 3 Announcement on the website of State Water Holding Polish Waters, Regional Water Management Board in Szczecin



Fig. 4 Content of the draft document on the website of Odra -Vistula Flood Management Project Coordination Unit

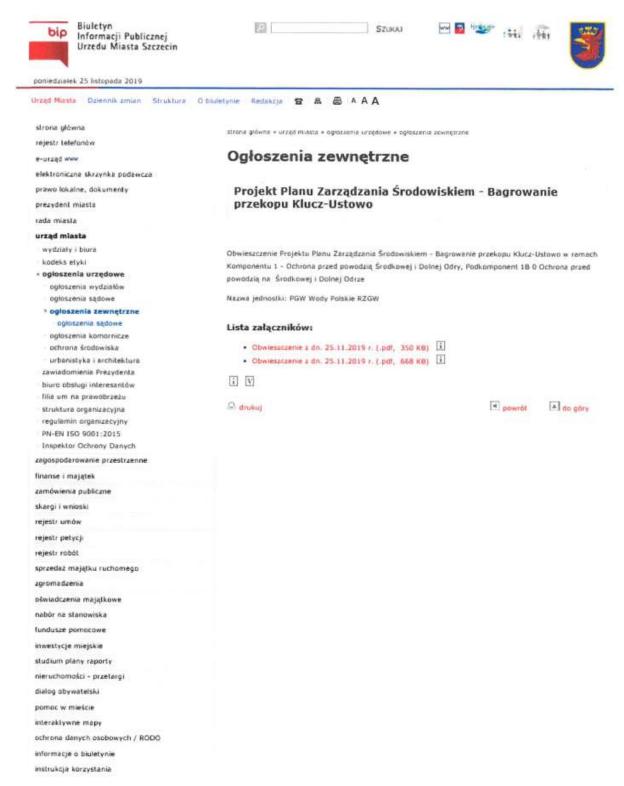


Fig. 5 Announcement on the website of the Szczecin City Hall

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch





### **OBWIESZCZENIE**

25.11.2019 09:34 / ostatnia modyfikacja: 25.11.2019 09:34



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:

#### Contract for works 1B.4/2 Dredging of Klucz - Ustowo ditch

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

Państwowe Gospodarstwo Wodne Wody Polskie Regionalny Zarząd Gospodarki Wodnej w Szczecinie (PGW Wody Polskie RZGW w Szczecinie) udostępniło do wglądu wszystkim zainteresowanym osobom i instytucjom PROJEKT PLANU ZARZĄDZANIA ŚRODOWISKIEM dla Kontraktu 1B.4/2 Bagrowanie przekopu Klucz-Ustowo (nazywany dalej PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM) sporządzony w ramach Komponentu 1 – Ochrona przed powodzią Środkowej i Dolnej Odry, Podkomponent 1B – Ochrona przed powodzią na Środkowej i Dolnej Odrze,

Każdy zainteresowany może:

- A) zapoznać się z PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM od dnia 25 listopada 2019 r. do dnia 9 grudnia 2019 r. włącznie (11 dni roboczych), w siedzibie:
- Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalny Zarząd Gospodarki Wodnej we Szczecinie, ul.
   Tama Pomorzańska 13 A, 70-030 Szczecin, w sekretariacie w dniach roboczych od godziny 8.00 do 14.00;
- Wydziału Ochrony Środowiska w Urzędu Miasta w Szczecinie, Plac Armii Krajowej 1,

70-456 Szczecin, w sekretariacie w dniach roboczych od godziny 8.00 do 14.00;

 - Jednostki Realizującej Projekt Ochrony Przeciwpowodziowej Dorzecza Odry i Wisły (JRP) PGW Wody Polskie RZGW w Szczecinie, ul. Teofila Firlika 19, 71-637 Szczecin, w pokoju 402 w dniach roboczych od godziny 8.00 do 14.00.

lub poprzez stronę internetową:

- Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalnego Zarządu Gospodarki Wodnej w Szczecinie, pod adresem – http://szczecin.wody.gov.pl/
- Biura Koordynacji Projektu Ochrony Przeciwpowodziowej Dorzecza Odry i Wisły, pod adresem http://odrapcu2019.odrapcu.pl
- Urzędu Miasta w Szczecinie http://www.szczecin.pl
- Projektu Ochrony Przeciwpowodziowej Dorzecza Odry i Wisły http://bs.rzgw.szczecin.pl

B) składać uwagi i wnioski odnośnie PROJEKTU PLANU ZARZĄDZANIA ŚRODOWISKIEM w formie pisemnej na adres Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalny Zarząd Gospodarki Wodnej we Szczecinie, ul. Tama Pomorzańska 13 A, 70-030 Szczecin z dopiskiem "uwagi PZŚ zadanie 1.B.4/2 POPDOW" lub w formie elektronicznej na adresy e-mail: ProjektBS@wody.gov.pl

i Emilia.Kaszycka@wody.gov.pl, w dniach od 25 listopada 2019 r. do dnia 9 grudnia 2019 r. (włącznie). Instytucją właściwą do rozpatrzenia uwag i wniosków jest PGW Wody Polskie RZGW w Szczecinie.

Po okresie 11 dni roboczych udostępnienia do wglądu dokumentu (od 25 listopada 2019 r. do dnia 9 grudnia 2019 r.) w dniu:

10.12.2019 r. o godz. 17.00-19.00 w siedzibie Konsultanta wsparcia technicznego firmy Sweco Consulting sp. z o.o przy ulicy Łyskowskiego 16, 71-641 Szczecin;

odbędzie się spotkanie otwarte dla wszystkich zainteresowanych, na którym przedstawione zostaną informacje o PROJEKCIE PLANU ZARZĄDZANIA ŚRODOWISKIEM, odbędą się publiczne dyskusje dotyczące tego dokumentu oraz dyskusje nad złożonymi do niego wcześniej lub w trakcie spotkań wnioskami i uwagami.

Obwieszczenie to zostało podane do wiadomości poprzez ogłoszenie w lokalnej prasie (Szczeciński dodatek do Gazety Wyborczej, Kurier Szczeciński), wywieszenie na tablicach ogłoszeń, jak również na stronach internetowych instytucji wskazanych powyżej, a także na stronie internetowej Projektu www.bs.rzgw.szczecin.pl oraz www.wszczecinie.pl.

#### Fig. 6 Announcement on the website of wszczecinie.pl



### Obwieszczenie o upublicznieniu PZŚ dla zadania 1B.4/2

25.11.2019



#### **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:

Państwowe Gospodarstwo Wodne Wody Polskie Regionalny Zarząd Gospodarki Wodnej w Szczecinie (PGW Wody Polskie RZGW w Szczecinie) udostępniło do wglądu wszystkim zainteresowanym osobom i instytucjom PROJEKT PLANU ZARZĄDZANIA ŚRODOWISKIEM dla Kontraktu 1B.4/2 Bagrowanie przekopu Klucz-Ustowo (nazywany dalej PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM) sporządzony w ramach Komponentu 1 – Ochrona przed powodzią Środkowej i Dolnej Odry, Podkomponent 1B – Ochrona przed powodzią na Środkowej i Dolnej Odrze,

Fig. 7 Announcement on the Project website – bs.rzgw.szczecin.pl

#### 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:

Państwowe Gospodarstwo Wodne Wody Polskie Regionalny Zarząd Gospodarki Wodnej w Szczecinie (PGW Wody Polskie RZGW w Szczecinie) udostępniło do wglądu wszystkim zainteresowanym osobom i instytucjom PROJEKT PLANU ZARZĄDZANIA ŚRODOWISKIEM dla Kontraktu 1B.4/2 Bagrowanie przekopu Klucz-Ustowo (nazywany dalej PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM) sporządzony w ramach Komponentu 1 – Ochrona przed powodzią Środkowej i Dolnej Odry, Podkomponent 1B – Ochrona przed powodzią na Środkowej i Dolnej Odrze,

#### Każdy zainteresowany może:

- A) zapoznać się z PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM od dnia 25 listopada 2019 r. do dnia 9 grudnia 2019r. włącznie (11 dni roboczych), w siedzibie:
  - Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalny Zarząd Gospodarki Wodnej we Szczecinie, ul. Tama Pomorzańska 13 A, 70-030 Szczecin, w sekretariacie w dniach roboczych od godziny 8.00 do 14.00;
  - Wydziału Ochrony Środowiska w Urzędu Miasta w Szczecinie, Plac Armii Krajowej 1, 70-456 Szczecin, w sekretariacie w dniach roboczych od godziny 8.00 do 14.00;
  - Jednostki Realizującej Projekt Ochrony Przeciwpowodziowej Dorzecza Odry i Wisły (JRP) PGW Wody Polskie RZGW w Szczecinie, ul. Teofila Firlika 19, 71-637 Szczecin, w pokoju 402 w dniach roboczych od godziny 8.00 do 14.00.

#### lub poprzez stronę internetową:

- Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalnego Zarządu Gospodarki Wodnej w Szczecinie, pod adresem – http://szczecin.wody.gov.pl/
- Biura Koordynacji Projektu Ochrony Przeciwpowodziowej Dorzecza Odry i Wisty, pod adresem
   http://odrapcu2019.odrapcu.pl
- Urzędu Miasta w Szczecinie http://www.szczecin.pl
- Projektu Ochrony Przeciwpowodziowej Dorzecza Odry i Wisty http://bs.rzgw.szczecin.pl
- B) składać uwagi i wnioski odnośnie PROJEKTU PLANU ZARZĄDZANIA ŚRODOWISKIEM w formie pisemnej na adres Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalny Zarząd Gospodarki Wodnej we Szczecinie, ul. Tama Pomorzańska 13 A, 70-030 Szczecin z dopiskiem "uwagi PZŚ zadanie 1.B.4/2 POPDOW" lub w formie elektronicznej na adresy e-mail: ProjektBS@wody.gov.pl i Emilia.Kaszycka@wody.gov.pl, w dniach od 25 listopada 2019 r. do dnia 9 grudnia 2019 r. (włącznie). Instytucją właściwą do rozpatrzenia uwag i wniosków jest PGW Wody Polskie RZGW w Szczecinie.

Po okresie 11 dni roboczych udostępnienia do wglądu dokumentu (od 25 listopada 2019 r. do dnia 9 grudnia 2019 r.) w dniu:

 10.12.2019 r. o godz. 17.00-19.00 w siedzibie Konsultanta wsparcia technicznego firmy Sweco Consulting sp. z o.o przy ulicy tyskowskiego 16, 71-641 Szczecin;

odbędzie się spotkanie otwarte dla wszystkich zainteresowanych, na którym przedstawione zostaną informacje o PROJEKCIE PLANU ZARZĄDZANIA ŚRODOWISKIEM, odbędą się publiczne dyskusje dotyczące tego dokumentu oraz dyskusje nad złożonymi do niego wcześniej lub w trakcie spotkań wnioskami i uwagami.

Obwieszczenie to zostało podane do wiadomości poprzez ogłoszenie w lokalnej prasie (Szczeciński dodatek do Gazety Wyborczej, Kurier Szczeciński), wywieszenie na tablicach ogłoszeń, jak również na stronach internetowych instytucji wskazanych powyżej, a także na stronie internetowej Projektu www.bs.rzgw.szczecin.pl oraz www.wszczecinie.pl.







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Fig. 8 Announcement in the supplement to Gazeta Wyborcza of 25.11.2019.

### 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:

Państwowe Gospodarstwo Wodne Wody Polskie Regionalny Zarząd Gospodarki Wodnej w Szczecinie (PGW Wody Polskie RZGW w Szczecinie) udostępniło do wglądu wszystkim zainteresowanym osobom i instytucjom **PROJEKT PLANU ZARZĄDZANIA ŚRODOWISKIEM** dla Kontraktu 1B.4/2 Bagrowanie przekopu Klucz-Ustowo (nazywany dalej PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM) sporządzony w ramach Komponentu 1 – Ochrona przed powodzią Środkowej i Dolnej Odry, Podkomponent 1B – Ochrona przed powodzią na Środkowej i Dolnej Odrze,

Każdy zainteresowany może:

 A) zapoznać się z PROJEKTEM PLANU ZARZĄDZANIA ŚRODOWISKIEM od dnia 25 listopada 2019 r. do dnia 9 grudnia 2019 r. włącznie (11 dni roboczych), w siedzibie:

 Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalny Zarząd Gospodarki Wodnej we Szczecinie, ul. Tama Pomorzańska 13 A, 70-030 Szczecin, w sekretariacie w dniach roboczych od godziny 8.00 do 14.00;

Wydziału Ochrony Środowiska w Urzędu Miasta w Szczecinie, Plac Armii Krajowej 1, 0-456

Szczecin, w sekretariacie w dniach roboczych od godziny 8.00 do 14.00;

 Jednostki Realizującej Projekt Ochrony Przeciwpowodźlowej Dorzecza Odry i Wisły (JRP) PGW Wody Polskie RZGW w Szczecinie, ul. Teofila Firlika 19, 71-637 Szczecin, w pokoju 402 w dniach roboczych od godziny 8.00 do 14.00.

lub poprzez stronę internetową:

 Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalnego Zarządu Gospodarki Wodnej w Szczecinie, pod adresem – http://szczecin.wody.gov.pl/

 Biura Koordynacji Projektu Ochrony Przeciwpowodziowej Dorzecza Odry i Wisły, pod adresem – http://odrapcu2019.odrapcu.pl

Urzędu Miasta w Szczecinie – http://www.szczecin.pl

Projektu Ochrony Przeciwpowodziowej Dorzecza Odry i Wisły – http://bs.rzgw.szczecin.pl

B) składać uwagi i wnioski odnośnie PROJEKTU PLANU ZARZĄDZANIA ŚRODOWISKIEM w formie pisemnej na adres Państwowego Gospodarstwa Wodnego Wody Polskie, Regionalny Zarząd Gospodarki Wodnej we Szczecinie, ul. Tama Pomorzańska 13 A, 70-030 Szczecin z dopiskiem "uwagi PZŚ zadanie 1.B.4/2 POPDOW" lub w formie elektronicznej na adresy e-mail: ProjektBS@wody.gov.pl i Emilia.Kaszycka@wody.gov.pl, w dniach od 25 listopada 2019 r. do dnia 9 grudnia 2019 r. (włącznie). Instytucją właściwą do rozpatrzenia uwag i wniosków jest PGW Wody Polskie RZGW w Szczecinie.

Po okresie 11 dni roboczych udostępnienia do wglądu dokumentu (od 25 listopada 2019 r. do dnia 9 grudnia 2019 r.) w dniu:

 10.12.2019 r. o godz. 17.00-19.00 w siedzibie Konsultanta wsparcia technicznego firmy Sweco Consulting sp. z o.o przy ulicy Łyskowskiego 16, 71-641 Szczecin;

odbędzie się spotkanie otwarte dla wszystkich zainteresowanych, na którym przedstawione zostaną informacje o PROJEKCIE PLANU ZARZĄDZANIA ŚRODOWISKIEM, odbędą się publiczne dyskusje dotyczące tego dokumentu oraz dyskusje nad złożonymi do niego wcześniej lub w trakcie spotkań wnioskami i uwagami.

Obwieszczenie to zostało podane do wiadomości poprzez ogłoszenie w lokalnej prasie (Szczeciński dodatek do Gazety Wyborczej, Kurier Szczeciński), wywieszenie na tablicach ogłoszeń, jak również na stronach internetowych instytucji wskazanych powyżej, a także na stronie internetowej Projektu www.bs.rzgw.szczecin.pl oraz www.wszczecinie.pl.







4710-19-A

Fig. 9 Announcement in Kurier Szczeciński of 25.11.2019.





### PROJEKT OCHRONY PRZECIWPOWODZIOWEJ W DORZECZU ODRY I WISŁY POŻYCZKA nr 8524-PL

Sweco Consulting sp. z o.o. - Lider JV, ul. Lyskowskiego 16, 71-641 Szczecin
Tel. 605 071 242, email: odra.szczecin@sweco.pl

Nr pisma: POPDOW-0G.101.7.2019 Szczecin, dnia 25.11.2019

#### ZAPROSZENIE

#### Szanowni Państwo,

W związku z trwającym procesem upublicznienia PROJEKTU PLANU ZARZĄDZANIA ŚRODOWISKIEM dla Kontraktu 1B.4/2 Bagrowanie przekopu Klucz-Ustowo, sporządzonego w ramach realizowanego Projektu Ochrony Przeciwpowodziowej w Dorzeczu Odry i Wisły (Komponent 1 – Ochrona przed powodzią Środkowej i Dolnej Odry, Podkomponent 1B – Ochrona przed powodzią na Środkowej i Dolnej Odrze), współfinansowanego ze środków Banku Światowego, mamy przyjemność zaprosić Państwa do wzięcia udziału w otwartym spotkaniu, na którym przedstawione zostaną informacje o PROJEKCIE PLANIJ ZARZĄDZANIA ŚRODOWISKIEM, przeprowadzone zostaną publiczne dyskusje na temat dokumentu oraz uwag złożonych w ramach procesu upublicznienia oraz w trakcie przedmiotowego spotkania.

Spotkanie informacyjne odbędzie się po zakończeniu procesu upublicznienia, w dniu 10.12.2019 r. o godz. 17.00-19.00 w siedzibie Konsultanta wsparcia technicznego firmy Sweco Consulting sp. z o.o przy ulicy Łyskowskiego 16, 71-641 Szczecin.

Szczegółowe informacje na temat możliwości zapoznania się z dokumentacją oraz wnoszenia uwag znajdują się w obwieszczeniu, dołączonym do niniejszej korespondencji.

Uprzejmie prosimy o potwierdzenie udziału w spotkaniu, za pomocą poczty elektronicznej na adres: <a href="mailto:odra.szczecin@sweco.pl">odra.szczecin@sweco.pl</a> lub pod numerem telefonu +48 605 071 242.

7. wyrazami szacunku W Cleek elle Krystyna Araszkiewicz Kierownik Projektu

Otrzymują:

- 1. Adresat
- 2, a/a

Załączniki:

obwieszczenie o upublicznieniu PZŚ







Fig. 10 Invitation to the meeting sent to representatives of local government organisations and NGOs

#### 9 EMP IMPLEMENTATION ORGANIZATIONAL STRUCTURE

The Task being the subject of this EMP is implemented within the Odra-Vistula Flood Management Project (see chapter 2.1), co-financed with 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 Co-ordination Unit of the Flood Control in the Odra and Vistula River Basin (PCU, OVFMP) Project

The entity responsible for overall coordination of implementing the individual parts of the EMP within the OVFM Project is the Project Coordination Unit (PCU.

The OVFM Project Coordination Unit's responsibilities are, among other things:

- 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. State Water Holding Polish Waters Regional Water Management Authority in Szczecin.

In relation to OVFM Project implementation, the Project Implementation Office (PIO) was established within PIU as a separate organizational unit supervised by President of State Water Holding Polish Waters. 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 accounting;
- 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 and the Contractor;
- direct supervision over correct Task implementation;
- cooperation with the PCU;
- administrative and legal supervision over EMP implementation;

- verification of EMP implementation reports and accounts prepared by the Consultant and the Contractor;
- financial supervision over EMP implementation;
- supervision over the correctness of applying formal procedures concerning EMP implementation which stem, inter alia, from the requirements of the Contract for works, the Construction Law, the Environmental Protection Law and other documents.

#### 9.3 CONSULTANT / ENGINEER

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

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

- monitoring the implementation of the EMP;
- monitoring the Contractor's activities;
- checking the quality of works performed by the Contractor;
- representing Investor on the site by controlling the compliance of construction implementation with the design, the execution 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 reports;
- identifying problems stemming from negative impact of the works on the environment and suggesting possible solutions thereof;
- inspecting and accepting the works;
- confirmation of actually performed works and removed defects as well as, at the Investor's request, inspection of construction settlement.

#### 9.4 CONTRACTOR

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

- carrying out the 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 that the following documents are drawn up before the project commences: SHP Plan, Waste Management Plan, construction site Flood Control Plan for the duration of the works, Spillage Procedure, Plan of dredging works and the Safe Navigation Project, and other documents indicated in the EMP and the conditions of Contract;
- Providing the Contract Engineer with and obtaining approval of the ESHS Code of Conduct and ESHS Management Strategy and Implementation Plans specified in the tender documentation, part IdO 11.1 (h), and drawn up during the tendering procedure, as well as adjusting these documents to Contract Engineer's periodical suggestions.
- keeping documentation of the construction;
- drawing up monthly reports and inspection reports;
- preparing reports on environmental protection;
- submitting proposals to the Investor for changes in design solutions if this is justified by the necessity of increasing the implementation safety of works or streamlining the construction process with regard to the EMP implementation.

## 10 EMP IMPLEMENTATION SCHEDULE AND REPORTING PROCEDURES

The implementation of the EMP allows the Parties who are engaged in preparing, executing, and supervising the Task to:

- identify various environmental aspects which have a major impact on the quality of the environment and may produce economic results. As a result, these environmental aspects may be controlled and corrected;
- correct unfavourable consequences of conducted works during their implementation, which is beneficial to the environment and the financial result;
- 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, to prevent and dispose of environmental impacts related to hazards and breakdowns which might lead to losses which are disproportionate to the prevention costs incurred;
- rationally use environmental resources with minimal environmental losses and bearing costs in an optimal way.

Moreover, the execution of the recommendations and actions stemming from the EMP might decrease and even eliminate the risks related to the Contract, particularly:

- the risk of neglecting the issue of environmental protection during the execution of the Task by the Contractor;
- the risk of escalation of local community protests due to not conforming by the Contractor to the environmental procedures and work execution procedures approved by the Engineer;
- the risk of additional penalties imposed as a result of a detrimental activity to the environment;
- the risk of the environment sustaining additional losses.

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;
- he 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 incurring additional environmental losse.

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

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- 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;
- subsequently, the EMP shall undergo public consultations;
- 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;
- after EMP approval by the World Bank, the final document shall be included in the bidding documents concerning Contractor selection;
- 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, both in a printed version and in an electronic version. Those reports shall require the Engineer's and the Employer's approval.

Environmental monitoring with regard to impact on environment of the Task consists in:

- 1. Inspecting the execution of the construction works encompassed in the Task under the supervision of the team of environmental experts formed by the Contractor for the duration of the Contract.
- 2. The team of environmental experts' tasks include:
  - Inspecting and controlling the area where the works will be carried out, both prior to their commencing and during their execution, drawing up appropriate reports constituting documentation on correct exercising of the environmental supervision, and informing of a proper implementation of mitigation efforts,
  - preparing and issuing to the Engineer petitions on the need of implementing mitigation efforts (along with their execution) necessary to remedy potential negative impacts the Task might have on natural habitats, as well as flora and fauna species being the scope of interest of the Community and protected under the legal protection of species; such negative impacts may not be possible to forecast during the stage of specifying the terms and conditions of executing the Task. Such mitigation efforts shall be implemented only after obtaining an Engineer's approval,
  - If such a need arises, obtaining necessary permits granting exceptions from the bans set forth in the plants, fungi, and animals protection rules, under the conditions and procedures specified in the Environmental Protection Act,
  - Reporting by drawing up periodical reports.
  - 3. The environmental experts team shall be formed by the Contractor and shall include experts in the following fields: an ichthyologist, a herpetologist, an ornithologist, a mammalogist, and a botanist. The specialists listed herein above shall possess proven

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experience regarding their professions and graduate from a field related to biology or a similar one.

It is planned that the Contractor shall prepare collective reports on environmental monitoring at the works implementation stage. The reports shall be confirmed by Contractor's team of environmental experts, approved by the Engineer's. 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 OVFM 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 OVFM 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 have been agreed upon:

#### 1) Reporting:

- a) reports (the commencement, monthly, reports (the commencement, monthly, quarterly and final ones), report submitted to RDOS in Szczecin prepared by the Contractor of Works,
- b) reports overview by the Engineer,
- c) submitting the report to the Employer (for information purposes),
- d) submitting the report to the RDOS in Szczecin by the Engineer,
- e) submission of a quarterly report by the PIU to the PCU.

#### 2) Archiving:

- a) The Contractor: One copy of each report in an electronic format for five years as of completing the Contract,
- b) The Engineer One copy of each report in an electronic format for five years as of completing the Contract,
- c) The Ordering Party: One copy of each report in an electronic format for five years as of completing the Contract.
- 3) Evaluation assessment (on a running basis) of implementation results of the planned actions stemming from the EMP. Analysis (on a running basis) of documentation (the Contractor's reports) by the Engineer. Submission of reliable information on the course

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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.

PCU prepares also quarterly reports submitted to the World Bank.

#### The following are also 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),
  - ✓ EMP Report after the expiry of the defect reporting period prepared by the Engineer.

#### 11 LIST OF SOURCE MATERIALS

- 1) Project Operations Manual (POM) for the Odra-Vistula Flood Management Project. OVFMP Project Coordination Unit. Wrocław, October 2015 with actualization approved on 20<sup>th</sup> June 2017.
- 2) Environmental and Social Management Framework for the Odra-Vistula Flood Management Project – the final document. RZGW in Szczecin, RZGW in Wrocław, RZGW in Kraków, ZMiUW of the Lubuskie Province in Zielona Góra, WestPomeranian 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-PIB. April 2015.
- 3) Notification that the actions have been notified and that the authority does not object to this notification concerning the silting of excavated material from the bottom of the Klucz Ustowo ditch (Skośnica) over the length of approx. 2.7 km: Notification of the Regional Director of Environmental Protection in Szczecin of 29<sup>th</sup> March 2019, reference number: WOPN-ON.670.47.2018.PW).
- 4) Notification of activities on the basis of the Article 118 of the Act on Nature Conservation to carry out activities consisting in the silting of excavated material from the bottom of the Klucz Ustowo ditch (over the length of approx. 2.7 km).
- 5) Decision of the Regional Director of Environmental Protection in Szczecin of 14<sup>th of</sup> June 2019, reference number: WOPN-OG.6401.02.134.2019.MK, WOPN-OG.6401.03.12.2019.MK, WOPN-OG.6401.04.11.2019.MK, WOPN-OG.6401.06.06.2019.MK, WOPN-OG.6400.71.2019.AJ (permission granting exemptions from bans set forth in animal protection rules).
- 6) Water law permit, granted to the Maritime Office in Szczecin, regulating the functioning of the silting field of Mankow (decision of the Marshal of the West Pomeranian Voivodeship, ref: WOŚ.II.7322.7.21.2015.WI of 30.03.2016).

#### 12 LIST OF ATTACHMENTS

Attachment 1	Plan of mitigation measures.
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- Attachment 2 Plan of monitoring activities.
- Attachment 3 List of national legal acts referring to environmental protection.
- Attachment 4 Notification that the actions have been notified and that the authority does not object to this notification concerning the silting of excavated material from the bottom of the Klucz Ustowo ditch (Skośnica) over the length of approx. 2.7 km: Notification of the Regional Director of Environmental Protection in Szczecin of 29<sup>th</sup> March 2019, reference number: WOPN-ON.670.47.2019.PW
- Attachment 5 Decision of the Regional Director of Environmental Protection in Szczecin of 14.06.2019, ref.: WOPN-OG.6401.02.134.2019.MK, WOPN-OG.6401.03.12.2019.MK, WOPN-OG.6401.04.11.2019.MK, WOPN-OG.6401.06.06.2019.MK, WOPN-OG.6400.71.2019.AJ.: authorisation to derogate from the prohibitions applicable to protected specimens of animal specimens in connection with the intention to carry out activities to silt the excavated material from the bottom of the Klucz- Ustowo ditch.
- Attachment 6a. Map showing the location of the Task against protected areas (Natura 2000 sites)
- Attachment 6b. Map showing the location of the Task against protected areas (sanctuaries, landscape parks, nature and landscape complexes, ecological sites).
- Attachment 6c. Map showing the location of the Task against fish protected areas indicated in the Ordinance 10/99 of the Governor of Zachodniopomorskie voivodship of 22<sup>nd</sup> December 1999 on establishing protected areas in the Odra, the Western Odra, the Eastern Odra, the Regalica, and canals in the Międzyodrze area (Journal of Laws of Zachodniopomorskie voivodship, No 51, item 749).
- Attachment 7 Area selected for environmental control of the direct neighbourhood of the Task, carried out before the works commence.
- Attachment 8 Letter of the Regional Director of Environmental Protection in Szczecin dated 25.10.2018, ref.: WOPN-ON.670.3.1.2018PW.IJ regarding the position on the lack of necessity to obtain an environmental decision.
- Attachment 9 Decision of the Marshal of the West Pomeranian Voivodeship, ref: WOŚ.II.7322.7.21.2015.WI of 30.03.2016 granting Water law permit for operation of the silting field of Mańków to the Maritime Office in Szczecin.
- Attachment 10 Letter of the Maritime Office in Szczecin dated 25.04.2018, ref.: DBM.II.074.6.18. consent to deposit dredged sediment originated from dredging works in navigation channel in Klucz Ustowo ditch.

- Attachment 11 Announcement of the Minister of Marine Economy and Inland Navigation dated 16/11/2018, reference number: DOK.DOK3.9701.19.2018.US; PW-65427 information on objection to water law notification.
- Attachment 12 Minutes of the meeting with the Save Rivers (*Koalicja Ratujmy Rzeki*) and the West Pomeranian Natural Society (*Zachodniopomorskie Towarzystwo Przyrodnicze*) concerning the mitigation measures in respect of the water chestnut (*Trapa natans*) to be included in the content of the Notification pursuant to art. 188 of Nature Conservation Act.
- Attachment 13 Report on the public consultation of the Environmental Management Plan for the Contract 1B.4/2 Dredging of the Klucz-Ustowo ditch.