Attachment 1 - Plan of mitigation measures

This Appendix to the Environment Management Plan for the Odra-Vistula Flood Management Project - Contract to perform works 1B.4.B/2 Dredging of the Klucz-Ustowo ditch, presents measures mitigating negative environment impacts which constitute guidelines for the Contractor as part of the Contract 1B.4.B/2. The cost and schedule of realisation should be included in the Offer. Requirement relating to discussion of the EMP implementation during work meetings and Site Meetings (item 63) concerns also the Engineer and PIU representatives.

Results described in Attachment 1 to EMP are grouped into the following topic categories.

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С	Procedures regarding location of the construction back-up facilities, roads, technological and storage sites, and parking areas	6
D	Procedures regarding management of dredged material	7 - 11
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Comments on the table see Attachment 1 to EMP

- 1) unless otherwise stated in a particular case, the term Task implementation area means the area of performing any preparatory works, essential works (including the Permanent Works and Temporary Works), and any works related to the removal of defects and faults or execution of the unfinished works specified in the Takeover Certificate or revealed during the Defects Notification Period, together with the lands subject to temporary acquisition.
- 2) unless otherwise stated in a particular case, the term **Task implementation period** means the duration of any preparatory works, essential works execution (including the Permanent Works and Temporary Works), and any works related to the removal of defects and faults or execution of the unfinished works specified in the Takeover Certificate or revealed in the Defects Notification Period.

Item	Issue	Place	Mitigation measures	Authorised entity
Α	Requirement		ealisation of the Task schedule	
1	Work schedule	Task implementatio n Area	EMP conditions related to work deadlines While establishing the Works Schedule and its realisation, the Contractor shall take into consideration EMP conditions relating to the periods of works, including: a) possible deadlines of works (see item 17) b) additional mitigation efforts (conditional temporary restrictions) (see item 18 and p. 6.8.1. of the EMP) c) permissible time limits to carry out works in the area between the eastern end of the Klucz - Ustowo ditch and the estuary of Obnica Północna in order to protect the water chestnut (<i>Trapa natans</i>) sites (see items 68, 69). d) securing specimens of the water chestnut (<i>Trapa natans</i>) (Item 70).	Contractor
2	Work schedule	Task implementatio n Area and the immediate vicinity	EMP conditions related to activities to be performed before commencement of the works and in the initial phase of works. While establishing the Works Schedule and in the phase of its realisation, the Contractor shall take into consideration the EMP conditions related to activities necessary to be performed before commencement of the works or in the initial phase, including: a) condition relating performance of one-time terrain inspection of the Task implementation Area and immediate vicinity, that is area indicated in the graphic attachment no. 7 to EMP. (see item 12) and securing specimens of the water chestnut (<i>Trapa natans</i>) (Item 70); b) conditions relating documents preparation (see items 33, 37, 38, 45, 48, 52) c) conditions relating acceptance acquisition from the Engineer for the person holding the position of Coordinator of the EMP realisation and composition of the environmental supervision team, and the munitions response team. (see item 58, 59, 61) d) conditions relating trainings and EMP realisation procedures (see item 57); e) conditions relating provision of other trainings (see item 42, 44, 60). f) conditions for implementing ESHS policy requirements (see items 71 to 80).	Contractor
В	COMMUNICA	ATION REQUIR	EMENTS IN THE TASK IMPLEMENTAT	ION AREA
3	Human health and safety, security of material	Waterways within the Task implementatio n Area and	a) the Contractor will be responsible for all and every damages to the	Contractor
	goods.	outside it.	construction, navigation signs of water ways and other engineering	

Item	Issue	Place	Mitigation measures	Authorised entity
			buildings or infrastructure, caused by it or its Subcontractors while performing the works, including transport of the spoil and equipment. The Contractor shall repair all damages at its own cost and, if	
			necessary, perform other works ordered by the Engineer.	
4			b) The Contractor shall prepare photographic documentation of the entire area of the Task implementation, with particular emphasis on the technical condition of the infrastructure indicated in item a.	
5			c) the Contractor shall be responsible for complying with the navigation rules and procedures on inland and see waters, in relation to its own units and units of the Subcontractors.	
С			LOCATION OF THE CONSTRUCTION ND STORAGE SITES, AND PARKING A	•
6	Protection of waters and soil. Wildlife protection	Task implementatio n Area and the immediate vicinity	Prohibition of preparing land back-up facilities as well as ways and technological sites along the Klucz - Ustowo ditch. The Contractor is forbidden to create land back-up-facilities or place roads,	Contractor
			technological and storage sites or parking places while implementing the Task.	
D			MANAGEMENT OF DREDGED MATERI	
7	Protection of waters and soil	Task implementatio n Area	The spoil from dredging works shall be transferred to silting field Mańków (permission from the operator of the silting field - Maritime Office in Szczecin issued on 01.06.2017, no. DBM-II-074/4/2/17). The spoil will be loaded directly onto means of water transport. Before the commencement of works, the Contractor shall carry out control tests and determine the quality of deposits the area of the works in the scope specified in Annex 1 to the Regulation of the Minister of Environment of 11/05/2015 on waste recovery outside installations), according to the requirements of the Mańków field operator. The manner of spoil handling shall be presented in the Waste Management Plan, prepared by the Contractor and sent for approval to the Engineer before commencement of the Works (item 33). Conditions to use the deposition field will constitute the subject of a contact entered	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
			between the Contractor and the operator of the silting field Mańków.	
8	Water and soil protection	Silting field Mańków	Compliance by the Contractor with the requirements contained in the water-law permit regarding the operation of the "Mańków" silting field issued to the Maritime Office in Szczecin (Appendix No. 9 to the EMP), by means of testing by the accredited laboratory of waters discharged from silting field in the range of: pH, BOD ₅ , COD, total suspension, total nitrogen, total phosphorus, including sampling as described in the said water-law permit.	Contractor
9	Wildlife protection	Silting field Mańków	The Contractor shall include in the Schedule a ban on conducting silting works in the period from January 1 to June 30, resulting from a water and legal permit regarding the operation of the "Mańków" silting field, issued to the Maritime Office in Szczecin (Appendix No. 9 to the EMP).	Contractor
10	Water and soil protection	Task implementatio n Area	Spoil quality check If, as the result of current evaluation and verification of spoil quality (see monitoring activity item 84 in Attachment 2 to the EMP), changes in the parameters and appearance of the spoil (e.g. colour, smell, consistency) are found: -The Contractor shall carry out control tests and determine the quality of the spoil in accordance with applicable regulations (in accordance with the Act of 14 December 2012 on waste and relevant executive acts to the Act). The tests will be carried out by laboratories accredited for such tests. The purpose of the tests is: - determining the possibility of depositing a batch of the deposits in the silting field (in the case of confirming the absence of contamination with hazardous substances), - determination of acceptable ways of dealing with contaminated spoil (see item 11).	Contractor
11	Protection of waters and soil	Task implementatio n Area	Contaminated spoil management In case polluted soil is found (in which the acceptable level of substance proportion is exceeded according to the current legal provisions regarding this matter, that is Waste Act, Environmental law and administrative acts of the abovementioned acts), it should be removed and forwarded to entities holding applicable licence for the further management of the spoil. The manner of spoil handling and operational procedures shall be presented in the Waste Management Plan, prepared by the Contractor and sent for approval to the Engineer before commencement of the Works (item 33).	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
E	PROCEDURES	REGARDING S	SECURING PROTECTED NATURAL ENV	IRONMENT RESOURCES
12	Wildlife protection	Task implementatio n Area and its immediate vicinity (area indicated in the graphic attachment, Att. no. 7 to EMP).	One-time environmental inspection of the Task implementation Area and the immediate vicinity before works commencement. Before the works commencement, the environmental inspection team, referred to in item 59, shall perform a one-time environmental inspection of the Task implementation Area and its immediate vicinity, that is area indicated in the graphic attachment no. 7. In case of habitat of fauna or flora under protection discovery, in connection to which breach of banes resulting from the provisions of law, it is necessary to acquire decisions that allow for deviation from the bans related to habitats or protection posts of flora and fauna spices, described in item 13-16.	Contractor
13	Wildlife protection	Task implementatio n Area	Acquisition of necessary deviations from the bans applicable in the ration to spices under protection. Should, before work commencement or during a one-time environmental control, described in item 12, or in the Task implementation Period, presence of habitats or protection posts of flora and fauna be found, the following conditions apply (described in item 13 - 16): a) The Contractor acquires and sends for the Engineer's acceptance the opinion of the environmental inspection team (described in item 59), which includes the necessity to receive derogation permissions described in point b), and furtherly, if necessary according to the opinion, performs activities described in point b-d (below);	Contractor
14			b) before commencement of any work that aims at destruction of habitats or posts or frightening away representatives of spices under protection (in line with the wording of the opinion described in point a), the Contractor shall acquire necessary derogation permissions in relation to the protected species of plants and animals, issued under the Nature Conservation Act of 16 April. c) the Contractor shall deliver the acquired derogation permissions for the Engineer's acknowledgement;	
16			d) the Contractor shall implement conditions stipulated in the derogation permissions (see also item 60) strictly and in a timely manner.	

Item	Issue	Place	Mitigation measures	Authorised entity
17	Wildlife	Task	Period of works execution	Contractor
	protection	implementatio	The works shall be carried out between 1	
		n Area	August and 31 December. (note: see items 67 and 68 for additional	
			time restrictions in the area between the	
			eastern end of the Klucz- Ustowo ditch and	
			the Obnica Północna estuary due to the	
			protection of the water chestnut (<i>Trapa</i>	
18	Wildlife	Task	natans). Additional minimizing measures	Contractor
10	protection	implementatio	(conditional activity in line with	Contractor
		n Area	description in point 6.8.1 of EMP)	
			In case of noting actual autumnal	
			migration (in purposes to find place for	
			winter time) of young perch or perch-pike,	
			the works shall be performed only until the end of day-time, namely until 5 PM., also	
			breaks in performance of work should be	
			planned during the day.	
			Due to difficulties in observing migratory	
			fish, specified water temperature parameters should be used to determine	
			the migration time. The beginning of the	
			sequence should be taken as the moment	
			when the water temperature does not	
			exceed 8°C on three consecutive days, and	
			the end as the moment when the water	
			temperature does not exceed 5°C on 10	
			consecutive days (measurement 1 m below the surface). For this purpose, daily	
			temperature measurements should be	
			carried out from 15 October (at the place	
			where suspended solids and oxygen	
			concentrations are monitored - see item	
			23) until the end of the migration route is	
			detected. Regardless of the water temperature measurements, the	
			beginning of the migration sequence	
			should be confirmed by performing a test	
			using an echo sounder.	
			Necessity of implementing additional	
			minimizing activities will be set by the	
			Engineer on the basis of information received from the Contractors'	
			environmental supervisory body [indicated	
			in point 59] or on the basis of own	
			observations.	
	Make	Tagli	Described months of afficial of	Contractor
19	Waters protection	Task implementatio	Required method of dredging works The silting task shall be performed with the	Contractor
	Wildlife	n Area	use of sand suction pump dredger.	
	protection		Other equipment, such as clamshell	
			dredger or a backhoe on a pontoon , can	
			be used only for finishing works, e.g.	
			forming slopes of the navigation channel or	
			locally to eliminate shoal patches, with the	
			exclusion of the possibility of working directly in the area of the Obnica Północna	
		<u> </u>	un ecuy in the area of the Obnica Poinocha	

Item	Issue	Place	Mitigation measures	Authorised entity
			estuary due to the population of the water	
20	Wildlife	Task	chestnut.	Contractor
20	protection	implementatio	Manner for performance of work The dredging works shall be made starting	Contractor
	protection	n Area	from one end of the ditch, going towards	
			the other end.	
21	Wildlife	Task	The dredging works shall be restricted to	Contractor
	protection	implementatio	the navigation channel only.	
	14 (1 H) C	n Area		
22	Wildlife protection	Task implementatio	The dredging works cannot be performed on the banks of the Kluch - Ustowo	Contractor
	protection	n Area	(Skośnica) ditch and the immediately	
			surrounding terrain on land, this includes	
			no interference in reed stands.	
23	Wildlife	Task	Protection of ichthyofauna and the water	Contractor
	protection	implementatio	chestnut population against increased	
		n Area	concentrations of suspended solids in the	
			Klucz - Ustowo ditch and Odra and the	
			Obnica Północna Canal	
			In order to protect the ichthyofauna and	
			the water chestnut habitat (in the Obnica	
			Północna Canal) from increased suspended	
			solids concentration in the Klucz – Ustowo	
			ditch and Odra river, the works should be	
			carried out in accordance with the	
			following principles:	
			a) if concentrations of suspended solids	
			higher than 200 mg/l or dissolved oxygen	
			concentrations < 4 mg O_2/I are recorded, the intensity of the works should be	
			reduced (2-hour intervals every 2 hours)	
			and if concentrations >400 mg/l of	
			suspended solids or <3 mg O ₂ /l are	
			detected, the works should be stopped for	
			a period of at least 24 hours,	
			b) the restart of works after any break	
			caused by excess of suspended solids	
			concentration must be preceded by	
			remeasuring the suspended solids	
			concentration at the monitoring points,	
			c) restart of works may only take place	
			under conditions of suspended solids	
			concentration below 200 mg/l at	
			monitoring points.	
			d) determination should be made at	
			monitoring points located approx. 500 m	
			downstream the worksite and in the Obnica Północna canal 100 m from the	
			estuary to the Klucz -Ustowo ditch.	
			The monitoring of the suspended solids	
			concentrations should be carried out daily,	
			carrying out the measurement after at least 2 hours of work execution (with	
			normal intensity). If the concentration	
			exceeds 200 mg/l, the measurement	
			should be repeated after a 2-hours break.	
			In parallel with the measurement of the	

Item	Issue	Place	Mitigation measures	Authorised entity
			suspended solids concentration, dissolved oxygen will be measured. If the value is	
			below 4 mg O ₂ /I, the work will be stopped	
			for a minimum of 2 hours, and if the value	
			is below 3 mg O ₂ /I - for a minimum of 24	
			hours. Oxygen concentration	
			measurement should be carried out in the middle of the water column - about 1.0 m	
			below the surface.	
			below the surface.	
F	PROCEDURES	S REGARDING	 	ONMENTAL POLLUTION,
•			F EMISSIONS TO THE ENVIRONMENT	·
24	Protection of	Task	Technical efficiency and machines,	Contractor
	waters and	implementatio	equipment overhaul	
	soil	n Area	The dredging works must be performed	
			with the usage of technically efficient machines only, in a way that prevents	
			water contamination.	
25	Protection of	Task	Prevention of petroleum contamination	Contractor
	waters and	implementatio	The Contractor shall perform periodical	
	soil	n Area	overhauls of machines and equipment, and	
			eliminate, with the available organisational means, the possibility of any kind of	
			contamination, including especially spill of	
			oil, hydraulic fluid and petroleum	
			substances, both while servicing,	
			transporting and using machines and	
			equipment.	
26	Protection of	Task	Proceedings in case of petroleum	Contractor
	waters and	implementatio	products contamination	
	soil	n Area	In case of emergency spill of petroleum	
			substance or other exploitation materials to water, immediate actions aiming at	
			neutralization of the spill, its collection	
			and transfer to entities authorised to	
			manage such wastes in order to neutralize	
			it, must be taken.	
			In case a more serious emergency occurs,	
			procedures from items 46, 48, shall be	
			followed.	
27	Protection of	Task	Sorbent equipment	Contractor
	waters and	implementatio	The proper amount of sorbents must be	
	soil	n Area	secured (especially the those adequate to	
			eliminate spill on water), necessary for usage in case of uncontrolled spills of	
			petroleum substance, according to the	
			Spillage Procedure described in detail in	
			point 6.14 of EMP.	
			Sorbets shall be stored on vessels.	
20	Protection of	Task	Water spill containment barriers	Contractor
28	waters	implementatio	Secure proper amount of water spill	Contractor
	, maters	n Area	containment barriers, necessary for usage	
			in case of uncontrolled spills of petroleum	
			substance, according to the Spillage	

Item	Issue	Place	Mitigation measures	Authorised entity
			Procedure described in detail in point 6.14 of EMP. The water spill containment barriers must be stored on vessels.	
29	Protection of waters	Task implementatio n Area	Refuelling of floating equipment Refuelling will be performed in a place designated for refuelling. In case a separate permission for fuelling site or a fuelling ship stay and the manner of its operation is necessary to be acquired from the head of Inland Navigation Office, the Contractor shall acquire such a permission.	Contractor
	Protection of Air and Acoustic	Task implementatio n Area	Limitation of air pollution with exhaust gases	Contractor
30	climate		a) Dredger cutters and other combustion engine-driven machines shall not be left with their engine idling during a break in their operation;	
31			ships and vessels shall berth with their engines off;	
32			 c) in the Task implementation Period, only technically efficient machines and equipment, with sound (acoustic power) and exhaust emission that are in line with the applicable laws, can be used. 	
G	PROCEDURES	S REGARDING \	WASTE MATERIAL AND SEWAGE	
33	Protection of waters	Task implementatio n Area	Preparation of Waste Management Plan (WMP) The Contractor shall prepare Waste Management Plan, described in details in point 6.14 of EMP, and get acceptance of the Engineer.	Contractor
34	Protection of waters	Task implementatio n Area	Waste management rules The management of waste produced during Task execution shall follow the following rules: • waste shall be separated and stored selectively in leak-proof containers on-board vessels; • waste shall be successively collected by parties authorized to manage it; • ship waste shall be moved to ship waste disposal sites. Waste management shall follow the rules stipulated in Act on Waste of December 14, 2012, Act on Inland Navigation of December 21, 2000, and the Waste Management Plan referred to in item 33 of Attachment 1 to the EMP.	Contractor
35	Protection of waters	Task implementatio n Area	Storing hazardous substances and materials If hazardous substances and materials are stored, they must be properly secured in order to prevent the access of unauthorized persons or bystanders.	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
			Information about the hazards shall be put	
			on warning signs.	
			Hazardous waste shall be separated and	
			stored in specified containers on-board	
			vessels until it is collected by parties	
			authorized to neutralise it.	
36	Protection of	Task	Procedures for domestic and sanitary	Contractor
	waters	implementatio	sewage management	
		n Area	Domestic and sanitary sewage must be	
			stored on vessels in leak proof tanks and transferred to entities holding adequate	
			permission for wastewater management.	
Н	PROCEDURES	S REGARDING I	HUMAN HEALTH AND SAFETY	
	Human	Task	Preparations of documents concerning	Contractor
	health and	implementatio	safety within the Task implementation	
	safety	n Area	Area	
37	1		a) The Contractor shall prepare and	
			acquire Engineer's acceptance for the	
			Safety and Health Plan (SHP Plan)	
			described in details in point 6.14 of	
			EMP;	
38			b) The Contractor shall prepare and	
			acquire Engineer's acceptance for the	
			Dredging Works Plan and Safe	
			Navigation Project , described in details in point 6.14 of EMP.	
39	Human health	Task	Ensuring an explosive ordnance disposal	Contractor
	and safety	implementatio	team in the Task implementation Area	
		n Area	In order to minimize risk connected with	
			the possibility of presence on the Task implementation Area dangerous military	
			items, the Contractor shall ensure:	
			during works - ensure explosive	
			ordnance disposal team 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;	
			• in case a dangerous military item is	
			found on the Task implementation	
			Area - realisation of procedures described in item 47.	
			accounted in term 47.	
40	Human health	Task	Implementation of guidelines regarding	Contractor
	and safety	implementatio	OHS The Contractor shall ensure	
		n Area	The Contractor shall ensure implementation of detailed guidelines	
			regarding occupational safety, i.a, within	
			the scope of:	
			usage and maintenance of working	
			tool - in particular inland sand pump	
			dredger;	
	<u> </u>		• transport;	

Item	Issue	Place	Mitigation measures	Authorised entity
			electrical and power system as well as	
			devices;	
			machines and technical equipment;works carried out on water;	
			included in applicable laws.	
	Human health	Task	Assurance of hygienic conditions	Contractor
	and safety	implementatio		
	Protection of waters	n Area	a) sanitary cabins/toilets and shall be	
41	waters		 a) sanitary cabins/toilets and shall be provided and employees shall use 	
			them, (Procedures for domestic and	
			sanitary sewage management was	
			described in point 36)	
42			b) all workers must be trained in	
			maintenance of adequate hygienic conditions within the Task	
			implementation Area.	
43			c) adequate social facilities for posted	
			workers must be provided.	
			Organisation of the social facilities must be performed in line with item 6,	
			34 and 36 on prohibition of creation of	
			back-up facilities on land,	
			management of domestic and sanitary	
	11	T. d.	sewage.	Contractor
44	Human health and safety	Task implementatio	Principles for prevention of such diseases as HIV-AIDS	Contractor
	and surety	n Area and its	Employing a proper service provider, the	
		immediate	Contractor shall implement programme	
		vicinity	increasing awareness on spreading such	
			diseases as HIV-AIDS (including organisation of adequate training) and	
			adopt all other necessary measures in	
			order to minimise the risk of spreading HIV	
			amongst the Contractors' personnel and	
			the local community. The activities must be performed in accordance with the detailed	
			conditions, set forth in the Tender	
			Documents of the contract (Part 3, Section	
			VIIII - General Conditions, clause 6.7)	
ı			EXTRAORDINARY HAZARDS TO THE E	
45	Human health and safety	Tasks Area	Rules of conduct associated with flood risk	Contractor
	Protection of			
	waters		Considering the flood risk, the Contractor	
			shall draft a document titled <i>Flood</i>	
			Protection Plan for the Duration of Works	
			and will obtain the Engineer's approval. In	
			case of flood the Contractor will follow the	
			procedures described in the above	
			document.	
46	Human health		Notification rules in emergencies	Contractor
	and safety		In case of emergencies (other than flood),	
	Protection of waters		accident, major breakdown, etc., the Contractor is obliged to undertake the	
	waters		_	
			following activities:	

Item	Issue	Place	Mitigation measures	Authorised entity
47	Human health	Task	 call adequate services immediately (Fire brigade, Emergency medical services, Police, Head of the Inland Navigation Office, etc.); until arrival of the services, perform necessary activities limiting the risk of personnel, property and environmental losses (when possible, agreed with the relevant services); inform the Engineer and the Contracting Party; after arrival of the relevant services, act strictly according to their orders and instructions. [see also procedures in points 26, 47] Procedures for unexploded ordnances 	Contractor
47	and safety Protection of waters	implementatio n Area	management In case unexploded ordnance is found, one must: stop work immediately; evacuate zone around the discovery; immediately inform Sapper's Supervision [indicated in point 61] and Police, and act according the instructions received from the bodies; inform the Engineer and the Contracting Party; Under no circumstances should the found unexploded ordnance be picked up, dug out, moved, thrown info fire or water, etc.	Contractor
48	Human health and safety Protection of waters	Task implementatio n Area	Rules of conduct in case of spill of petroleum substances (POLs) In relation to the risk of possible spill of petroleum substances, the Contractor shall prepare and acquire approval the Engineer of a document, so called Spillage Procedure. In case of the spill, the Contractor shall follow procedures described therein.	Contractor
	Human health and safety	Task	Guidelines regarding safety on the water way / avoidance of navigation accidents	Contractor
49	Protection of waters	implementatio n Area	a) means of transport (vessels) have to fulfil relevant inland navigation provisions binding in the Republic of Poland [see also points 3 and 5 referring to communication services in the Task implementation Area];	
50			 b) parameters of the means of transport (set of floating Conveyor) must be adopted to conditions resulting from the current class of the waterway. 	
51			c) employing vessels while realisation of works requires agreement from the applicable Head of Inland Navigation Office in Szczecin and the Head of Maritime Office in Szczecin (in case see waters are to be used),	
52			d) before commencement of the work, Safe Navigation Project must be	

Item	Issue	Place	Mitigation measures	Authorised entity
53			prepared. It must be approved by the Head of Inland Navigation Office in Szczecin, Head of Maritime Office in Szczecin (in case see waters are to be used) and the applicable administrator of the waterway. e) the area under work and the waterway must be properly signed to inform on threats and limitations in the navigation, according to the Act on Inland navigation and provisions of the local laws. The way of marking and places of putting signs must be agreed with the Head of Inland Navigation Office in Szczecin and the authorised administration of the waterway.	
J	PROCEDURES Protection of	Task	The rules of conduct in case of discovery	Contractor
55	Protection of cultural monuments	implementatio n Area Task implementatio	of mobile monuments or archaeological sites In case of finding an item presumed to be a monument during works execution, the Contractor will immediately stop the works which may result in harming or damaging the discovered item, secure the item and the place of discovery using all available resources and immediately inform the Provincial Monuments Conservator or, if it is not possible, the village mayor of Kołbaskowo commune, and the mayor of Gryfino town and commune. The Contractor will also inform the Engineer of the above. Obtaining a permit from the Provincial Monuments Conservator	Contractor
V			In order to fulfil the provisions of the EMP concerning the preservation of cultural heritage and monuments, the Contractor, should such a need arise, under the power of attorney granted by the Ordering Party shall obtain a permit from the Provincial Monuments Conservator (MZK) for rescue archaeological investigations.	
K	Wildlife Wildlife		RESTORING OF NATURAL RESOURCES	Contractor
56	protection	Task implementatio n Area	Natural resources restoration shall be performed in line with the decisions referred to in items 13 – 16.	Contractor
L	REQUIREMENT EMP		G THE CONTRACTOR'S STAFF ENGAG	ED IN THE EXECUTION OF
57	Realisation and reporting on the	Task implementatio n Area	Contractor staff training regarding EMP realisation	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
	EMP		The Contractor shall be responsible for	
	realisation		training its management, engineer and	
			technical staff that supervises the	
			construction works (finished with a test	
			evaluating knowledge of the participants) on the EMP's rules and conditions and	
			protective recommendation while carrying	
			out construction works. The training	
			should be prepared with the help of the	
			Contractors' environmental supervision	
			team. The Contractors workers, who are to	
			work with fuels or other petroleum and	
			other substances harming health and	
			environment, should be trained on land	
			and water environmental protection	
			procedures and application of the	
			protection measures, including usage of	
			sorbents or spill containment equipment	
			on water.	
			In monthly reports for the Engineer, the	
			Contractor shall include information on the	
			level of staff training on the EMP	
			procedures in the current reporting period.	
58	Realisation	Task	Appointing EMP coordinator in the	Contractor
	and reporting	implementatio	Contractor's team	
	EMP realisation	n Area	In the Contractor team, a person for coordination and supervision of activities	
	Tealisation		concerning implementation of EMP shall	
			be appointed.	
			The following shall constitute duties of the	
			person:	
			• supervision over realisation of	
			particular EMP conditions on	
			subsequent Task realisation phases;	
			 systematic supervision over the 	
			advancement level in realisation of	
			particular conditions from	
			Attachment no. 1 and 2 of EMP within	
			the Task implementation Area;	
			 systematic reports for management 	
			of the Contractor's team on the	
			duties resulting out of EMP regarding	
			a given phase of works, and problems	
			arising while implementing EMP;	
			cooperation with the other members of the Contractor's team (consciell).	
			of the Contractor's team (especially with the environmental supervision	
			team, referred to in point 59) within	
			realisation of EMP;	
			reporting on realisation of EMP (in	
			line with rules set forth in points 62 -	
			65);	
			 cooperation with people responsible 	
			for EMP realisation in the Engineer	
			and the Contracting party's team.	
			The Coordinator for the EMP in the	
			Contractor's Team cannot be a member of	
			the Contractor's environmental	
			supervision team at the same time.	
			Person chosen for the position needs to be	
			approved by the Engineer.	

Item	Issue	Place	Mitigation measures	Authorised entity
59	Realisation and reporting EMP realisation	Task implementatio n Area	Securing environmental supervision team For the entire Task implementation Period, the Contractor secures involvement of the environmental supervision team, comprising representatives of the following specialisation: a) zoologist- ichthyologist (fish); b) zoologist-mammalogist with a special consideration of big mammals, among others beavers, otter and herpetologist (reptiles, amphibians), c) zoologist - ornithologist (birds); d) botanist. The experts will be engaged in the chosen mitigating and monitoring activities, set forth in EMP, in particular: a) mitigating activities set forth in Attachment no. 1 to EMP in particular in points: 12 - 18, 56, 57-64, 70. b) monitoring activities set forth in Attachment no. 2 to EMP, in particular in points: 12 - 18, 56, 64-66, 70. Personal composition of the environmental supervision team must be approved by the Engineer. One member of the environmental supervision team may represent at most two environmental specialisations mentioned above in point a-d. Tasks of the environmental supervision	Contractor
	and reporting EMP realisation	implementation Area and its immediate vicinity (area indicated in the graphic attachment, Att. no. 7 to EMP).	The task of the environmental supervision team is to take protective measures in case environmental threat for fauna and flora is found, as a result of activities connected with the Task realisation. Tasks of the environmental supervision team include in particular: - before commencement of the Task realisation, preparation of single environmental control of the Task implementation Area and its immediate vicinity, that is area indicated in graphic attachment no. 7, to check for existence of protection species sites [see item 12]; - in case presence of the sites or fauna and flora species under protection is found, towards which breach of bans stipulated in the applicable laws will be necessary, before commencing the works it is necessary to acquire applicable derogation permission to perform tasks [see point 13 - 16]. - supervision within the Task implementation Period, if necessary a) on the basis on the acquired	

Item	Issue	Place	Mitigation measures	Authorised entity
			derogation permission, carry out activities preventing negative influence on the specimen found; b) indicating the need to implement additional mitigation activities - time limits in work performance - set forth in item 18; c) indicating the need to implement additional solutions concerning protection of birds (times, manner of performing works) with relation to sites of the birds under protection; - training for the Contractor's workers on the procedures in case of threats for the natural environment is found on the Task realisation area [see point 57].	
61	Realisation and reporting EMP realisation	Task implementatio n Area	Securing Sapper's Supervision team For the entire Task implementation Period, the Contractor secures involvement of the Sapper's Supervision team. The team shall be involved in realisation of the chosen mitigation activities set forth in EMP (in particular regarding to activities provided in point 39). Depending on the needs, the Sapper's Supervision team may consist of two or more persons, who hold industrial licences and required permits. Personal composition of team must be approved by the Engineer. The Contractor shall develop and submit to the Engineer for approval the methodology for carrying out explosive ordnance works.	Contractor
М	REPORTING I	PROCEDURES C	ON THE EMP REALISATION	
62	Realisation	Task	Reporting on the EMP realisation level in	Contractor
	and reporting on the EMP realisation	implementatio n Area	the monthly reports Within the Task implementation Period, the Contractor shall provide the Engineer with monthly reports on realisation of conditions set forth in EMP (in the form of a check-list accompanied by necessary attachments, including reports on realisation of the environment supervision. The Engineer will provide the Contractor with a template of the above mentioned report (checklist). Depending on circumstances, the Engineer may demand from the Contractor delivery of additional reports, on, among others, emergencies that took place, realisation of chosen points of EMP, and others.	
63	Realisation and reporting on	Task implementatio n Area	Discussing the EMP implementation during work meetings and Site Meetings	Contractor
	EMP realisation		During the Task implementation Time the PIU representatives, the Engineer and the Contractor will participate in monthly meetings and discuss and control mitigation and monitoring actions	

Item	Issue	Place	Mitigation measures	Authorised entity
			implementation described in the EMP. Regardless of the above, current requirements and problems associated with the EMP implementation will be discussed during all Site Meetings.	
	Realisation and reporting on EMP realisation	Task implementatio n Area	Contractor's environmental supervision team reports The Contractor's environmental supervision team shall provide reports including (conditions set forth in point 64 - 66):	Contractor
64			a) preparation of periodical reports (monthly, quarterly and final report) from the realisation of conditions set forth in EMP (in a form of check-list accompanied by necessary attachments, including reports on environmental supervision) delivered to the Engineer and requiring his approval.	
65			b) preparation of reports delivered to Regional Director of Environmental Protection in Szczecin, in line with provisions of the decision, on deviation from the bans applicable to specimens of protected species [derogation permission] (attachment no. 5 to EMP).	
66			c) preparation of reports delivered to Regional Director of Environmental Protection in Szczecin in line with provisions of the decisions set forth in points 13-16, if stipulated)	
N			PROTECT THE POPULATION OF THE V BNICA PÓŁNOCNA CANAL	VATER CHESTNUT
67	Protection of Natural Resources	Obnica Północna Canal	Ban on the movement of floating equipment in the Obnica Północna Canal The Contractor shall not allow the movement of floating equipment associated with the planned works in the Obnica Północna Canal, with the exception of monitoring activities and other activities resulting from EMP, executed with boats without engines or other boats if the speed of below 20 km/h is maintained.	Contractor
68	Protection of Natural Resources	Area between the eastern end of the Klucz - Ustowo ditch and the estuary of	Deadline for works in the area between the eastern end of the Klucz - Ustowo ditch and the Obnica Północna estuary Execution of works is permitted in the period from May 15 to September 30.	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
		Obnica Północna		
69	Protection of Natural Resources	Area between the eastern end of the Klucz - Ustowo ditch and the estuary of Obnica Północna	Conditional work execution in the area between the eastern end of the Klucz - Ustowo ditch and the Obnica Północna estuary from 1st of October onwards. Carrying out of works is possible after eliminating the risk of depositing sediments into the Obnica Północna Canal in the amount causing a risk of burial of water chestnut fruits, in the form of executing of a barrier steering the flow of water along the Klucz - Ustowo ditch and limiting the inflow of water into the Obnica Północna during the works carried out at its estuary. The method of the barrier execution shall be subject to the Engineer's approval.	Contractor
70	Protection of Natural Resources	Task implementation Area	Protection of specimens of the water chestnut (<i>Trapa natans</i>) 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 <i>Trapa natans, Salvinia natans, Nymphoides peltata</i>). 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 20 th of June and 31 st of August). The collected specimen of water chestnut will be transferred to a replacement site (e.g. in the Obnica Północna 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). The activity will be carried out under the supervision of the Contractor's environmental supervision team referred to in item 59. The action requires a departure from the bans applicable to protected species referred to in items 13-16. In the case of identifying the presence of the above-mentioned protected species in	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
			to transfer all specimens of these plants to the Obnica Południowa canal. In case of the verified absence of water chestnut <i>Trapa natans</i> plants in the Klucz – Ustowo ditch and when the population of the species in the Obnica Północna canal is lower than 5000 the number of rosettes to be transferred can be lower than indicated 50 but not greater than 1% of the resources of the local part of the population in the Obnica Północna canal. In case of very limited number of rosettes in the Obnica Północna canal, Contract Engineer can decide not to execute the measure.	
0	MANAGEME REQUIREMEN		S, ESHS IMPLEMENTATION PLANS AN	D SPECIFIC ESHS POLICY
71	Protection of human health and safety, Protection of waters Protection of Natural Resources	Task implementatio n Area	Within 30 days from the commencement of the Contract, the Contractor shall prepare and submit for the Engineer's approval a document entitled: Implementation plan and strategy for the management of environmental, social, health and safety risks: which includes, inter alia, such elements as: a description of the actions taken to manage the risks, a description of the materials and equipment used, a description of the management processes, etc. to be implemented by the Contractor and its subcontractors in order to minimise the risks. The Contractor shall, at the Engineer's request, update and submit for approval the Implementation Plan and strategy for the management of environmental, social, health and safety risks.	Contractor
72	Protection of human health and safety Protection of waters Protection of Natural Resources	Task implementatio n Area	Contractor's responsibility for compliance with the ESHS The Contractor shall ensure that all requirements and conditions of the ESHS and the plan referred to in item 71 are met. This condition applies to the Contractor and its staff, regardless of the legal form of cooperation and respectively to Subcontractors and their staff.	Contractor
73	Protection of human health and safety	Task implementatio n Area	Prevention of sexual harassment and mobbing The Contractor shall ensure that during the execution of the Contract, such conditions are in place as to prevent mobbing and sexual harassment to its staff and Subcontractors, as well as to other persons	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
			(whether related to the execution of the Contract or third parties).	
74	Protection of human health and safety	Task implementatio n Area	Awareness-raising on the prevention of sexual harassment and mobbing The Contractor shall, through an approved and qualified service provider, 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.	Contractor
75	Protection of human health and safety	Task implementatio n Area	Reporting cases of sexual harassment and mobbing It is the Contractor's duty to inform the Consultant immediately about all reported cases and suspicions concerning sexual harassment and mobbing. All cases of reported and suspicions concerning sexual harassment and mobbing should be entered in the register of complaints and requests kept by the Contractor. In the case of mobbing or sexual harassment, the Contractor shall be obliged to take actions aimed at immediate termination of such behaviour and to take all legal measures against the perpetrators of such behaviour. The Contractor shall be also obliged to provide all necessary assistance and support to the victims of such conduct.	Contractor
76	Protection of human health and safety	Task implementatio n Area	Ensuring that staff employed in the implementation of the Task can submit complaints and requests Contractor will inform all employees on the works' site about 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 Contractor will keep a register of complaints and requests. The content of the leaflet and the format of the register will be agreed with the Consultant.	Contractor

Item	Issue	Place	Mitigation measures	Authorised entity
77	Protection of	Task	Ensuring accident-free working conditions	Contractor
	human health	implementatio	The Contractor shall ensure that in the	
	and safety	n Area	Task implementation Area and outside the	
			Task implementation Area (during	
			activities related to the execution of the	
			Task, e.g. during transport) such conditions	
			are met as to prevent accidents involving persons related to the execution of the	
			Contract, including Contractor's,	
			Engineer's, Investor's, Subcontractors'	
			staff, etc., as well as third parties.	
			In the count of such continues to the	
			In the event of such accidents, it is necessary to:	
			necessary to.	
			 immediately ensure proper handling of 	
			the injured party	
			secure the location of the accident	
			 inform the Engineer as soon as possible about the accident and about the 	
			Contractor's reaction to the accident	
			notify the relevant services and allow	
			them to reach the place of the accident.	
78	Protection of	Task	Conditions of employment of young	Contractor
	human health	implementatio	workers	
	and safety	n Area	In connection with the execution of the	
			Contract, Contractor may employ only	
			such a young worker who is at least 15	
			years old, has completed primary school of	
			at least eight years duration and has	
			presented a medical certificate stating that	
			the work in question does not endanger his / her health.	
			7 Her Hearth	
79	Protection of	Task	Health and Safety Supervision by the	Contractor
	human health	implementatio	Contractor	
	and safety	n Area	During the Task implementation period,	
			the Contractor will ensure constant	
			supervision of health and safety at work.	
			The scope of duties, qualifications and	
			personal composition of the Contractor's	
			HS services shall be in accordance with the Polish labour law regulations.	
			. csir iasoar iaw regulations.	
			Prior to the commencement of works, the	
			Contractor's health and safety supervision	
			shall conduct a dedicated training for the Contractor's personnel in the field of work	
			safety and accident risk during the	
			execution of the Task.	
	Dueteetiereef	Taal	The Combination shall be abled to	Contractor
80	Protection of	Task	The Contractor shall be obliged to apply and comply with all labour law regulations	Contractor
	human health and safety	implementatio n Area	in force in Poland, in particular all	
	and salety	HAICA	provisions of the Labour Code, and shall act	
			in accordance with the ESHS Code of	
			Conduct. In particular, the following issues	
			should be reflected in the Contractor's	

Item	Issue	Place	Mitigation measures	Authorised entity
			employment policy and the remuneration regulations: - Ensuring equal pay for employees performing the same work without taking into account gender, sexual orientation or age. - ensuring that persons employed in the Contract are not persecuted or discriminated against on the basis of gender, sexual orientation and age. - ensuring that the Contractor, in accordance with the possibilities and conditions and the Polish Labour Code provisions, will meet the living and social needs of employees in the workplace. - ensuring that the Contractor enable employees to improve their professional qualifications.	