

## Appendix 1 – Plan of mitigation measures

This appendix to the Environmental Management Plan (EMP) for the Task **1B.6/2 Wężyska – Chlebowo** describes the conditions for implementing the Task concerning the mitigation measures, which reduce its negative impacts on the environment. The costs of these measures and schedule of implementation should be included in the Offer.

The conditions described in Appendix 1 of the EMP are grouped in the following categories:

Cat.	Category Name	Item in Table
A.	Requirements concerning the scheduling of works	1-2
B.	Requirements concerning the communication service of the <i>Task implementation area</i>	3-4
C.	Requirements concerning the location of site facilities as well as technological roads and yards	5-8
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Explanations of the table in Appendix 1 of the 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 measure	Entity
<b>A. REQUIREMENTS CONCERNING THE SCHEDULING OF WORKS</b>				
1.	Work Schedule	<i>Task implementation area</i>	<p><b>The EMP conditions on the deadlines of the works</b></p> <p>When determining the work schedules and at the stage of their implementation, it is necessary to take into account the conditions of the EMP regarding the deadlines and time for conducting various types of works, including <i>i.a.</i>:</p> <ul style="list-style-type: none"> <li>a) permissible hours of the works performance (see item 69);</li> <li>b) permissible dates for the demolition of the existing flood embankment (see item 39, 41);</li> <li>c) dates for mowing the section of the existing flood embankment before the demolition (see item 42) ;</li> <li>d) permissible dates for backfilling the designated areas (see item 40);</li> <li>e) permissible dates for backfilling the water reservoirs (see item 45);</li> <li>f) permissible dates for felling of trees and shrubs (see item 13, 14, 16);</li> <li>g) completion date for felling of trees and shrubs (see item 17);</li> <li>h) dates of environmental supervision inspections before felling of trees (see item 16);</li> <li>i) an optimal date for executing the works within tree and shrub root mass (see item 21);</li> <li>j) dates of inspections relating to ensuring the safety of small animals at the construction site (see item 28, 29);</li> <li>k) arrangement of dates for carrying out reinstating works (see item 47);</li> <li>l) agreeing on the planting dates of Pedunculate oaks (see item 48);</li> <li>m) dates for hanging boxes for bats (see item 49);</li> <li>n) dates for reporting of the EMP implementation (see item 102).</li> </ul>	Contractor

Item	Issue	Place	Mitigation measure	Entity
2.	Work Schedule	Task implementation area along with access roads and their surroundings	<p><b><i>The EMP conditions on the actions to be executed before or at the initial stage of work</i></b></p> <p>When determining the work schedules and at the stage of their implementation, it is necessary to take into account the conditions of the EMP on the actions to be executed before or at the initial stage of work, including <i>i.a.</i>:</p> <ul style="list-style-type: none"> <li>a) conditions for the implementation and fitting out the site facilities as well as roads and technological yards (see item 5, 6, 7, 28, 34, 55, 58, 59, 60, 61, 62, 63, 64, 65, 66, 75, 76, 79, 80, 81, 86, 87);</li> <li>b) conditions for communication service of the construction site (see item 3, 4);</li> <li>c) conditions concerning the examination of quality (pollution) of land and river sediments (see item 9);</li> <li>d) conditions concerning obtainment of opinions for planned locations of extraction of land and aggregate (see item 11);</li> <li>e) condition concerning the removal and protection of topsoil layer (see item 12);</li> <li>f) condition for protection of trees and shrubs not planned for felling (see item 18);</li> <li>g) condition relating to the performance of nature inventories (see item 24);</li> <li>h) condition relating to the protection of the borders of habitats (see item 25);</li> <li>i) condition relating to the protection of the construction site against entering by small animals (see item 28);</li> <li>j) condition of obtaining a decision permitting derogations from the rules of species-specific protection for plants, fungi and animals (see item 36, 37);</li> <li>k) conditions for the development of selected documents (see item 10, 47, 48, 49, 50, 52, 78, 83, 89, 93, 98, 99, 100, 102);</li> <li>l) conditions concerning the documentation of the technical state of buildings and infrastructure (see item 3, 85);</li> <li>m) condition concerning the military engineer recognition of the construction site (see item 84);</li> <li>n) condition concerning the inventory of illegal landfill sites (see item 82);</li> <li>o) condition relating to the obtainment of the opinion of the heritage conservator (see item 92);</li> <li>p) condition relating to the verification of the geodetic division applied in the EMP (see item 95);</li> <li>r) condition relating to the approval of the Engineer for the coordinator of EMP implementation and composition of the team of environmental experts, team of archaeology experts and the team of military engineering supervision (see item 97, 98, 99, 100).</li> <li>s) condition relating to training on the principles of the EMP implementation (see item 96).</li> </ul>	Contractor

Item	Issue	Place	Mitigation measure	Entity
<b>B. REQUIREMENTS CONCERNING COMMUNICATION SERVICE OF THE TASK IMPLEMENTATION AREA</b>				
3.	Protection of human health and safety, protection of material goods, protection of the earth surface	Access roads to the <i>Task implementation area</i> along with their surroundings	<p><b>Conditions for the use of access roads to the <i>Task implementation area</i></b></p> <p>In the scope of the use of access roads to the <i>Task implementation area</i> the following conditions apply:</p> <ul style="list-style-type: none"> <li>a) Access to the <i>Task implementation area</i> should be determined on the basis of existing roads;</li> <li>b) The Contractor shall ensure proper markings of all access roads to the <i>Task implementation area</i> in accordance with applicable law and as agreed with the relevant Road Authorities. These markings will be monitored regularly, and in the case of damage or theft, the Contractor shall immediately restore or supplement these markings;</li> <li>c) The Contractor shall ensure the protection of people against increased vehicular traffic on roads used during the construction work. During the implementation of the Task, the Contractor shall provide, install and maintain all temporary protection devices, thus ensuring the safety of vehicles and pedestrians;</li> <li>d) Hardened surfaces (e.g. access roads), over which the vehicular traffic transporting building materials and aggregates will take place, should be kept in due technical condition;</li> <li>e) The Contractor shall apply to statutory restrictions for the axle load at the transport of materials to and from the <i>Task implementation area</i>. The Contractor shall obtain all necessary permits for the transport of atypical loads and continuously notify the Engineer of any such carriage;</li> <li>f) The Contractor shall be responsible for all damage to buildings and structures, roads, drainage ditches, culverts, water and gas pipes, poles and power lines, cables, points of geodetic control network and installation of any kind, and objects of another kind as horizontal and vertical marking, navigation marking, signage, cultural objects, etc., caused by him or his Subcontractors within the <i>Task implementation period</i>. The Contractor is also responsible for restoring the flow capacity of ditches and drainage systems in the area of works and used transport roads in the event of damage caused by construction works and transport connected with the works.</li> </ul> <p>The Contractor shall immediately repair any resulting damage at his own expense and, if necessary, carry out other work ordered by the Engineer;</p> <ul style="list-style-type: none"> <li>g) The Contractor is required to prepare the photographic documentation of the whole <i>Task implementation area</i> and access roads, with particular emphasis on the technical condition of the roads and buildings located near the road of transport of construction materials;</li> <li>h) Prior to the works, the Contractor shall carry out the site inspections in the presence of Road Authorities, which shall be followed by protocols on the condition of access roads to the <i>Task implementation area</i>. On this basis, the Contractor shall be obliged to restore the technical condition of the roads from before the <i>Task implementation period</i>;</li> <li>i) The Contractor is obliged to agree the traffic and work protection designs with the Road Authorities. The Contractor is obliged</li> </ul>	Contractor

Item	Issue	Place	Mitigation measure	Entity
			<p>to carry out the traffic organization according to the agreed designs (marking and securing the <i>Task implementation area</i> and marking detours and recommended road marking connected with a change of traffic organization, etc.);</p> <p>j) Prior to the works, the Contractor shall submit the traffic organization and work protection designs agreed with the Road Authorities to the Engineer for approval. Depending on the needs and progress of works the designs of road traffic changes shall be updated by the Contractor on a regular basis.</p>	
4.	Protection of material goods, protection of the earth surface, protection of water, protection of biotic nature	Access roads to the <i>Task implementation area</i> along with their surroundings	<p><b><i>Additional conditions for access roads to the Task implementation area</i></b></p> <p>Transport of materials and traffic of vehicles, machines and devices supporting the construction process should be carried out, in the first place, on existing public roads, forest roads or dirt roads.</p> <p>If it is necessary to execute an additional access road to the <i>Task implementation area</i>, it should be designated in the form of as short a section as possible and outside the areas of high natural value.</p> <p>The planned locations of the access roads should be agreed with the team of environmental experts referred to in item 98 (including <i>i.a.</i> a phytosociology expert) and submitted, together with the above-mentioned arrangements, to the Engineer for approval.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
<b>C. REQUIREMENTS CONCERNING THE LOCATION OF SITE FACILITIES AS WELL AS TECHNOLOGICAL ROADS AND YARDS</b>				
5.	Protection of water and soil, protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Obligation to prepare site facilities as well as technological roads and yards</i></b></p> <p>Before starting the construction works, it is necessary to perform site facilities, technological roads and yards.</p> <p>Site facilities are to serve for storage of building materials, garage, refueling and current repairs of vehicles, machinery and devices, location of social facilities (changing rooms, office, workshop, portable sanitary cabins) and waste containers.</p> <p>Equipment of site facilities should meet, among others, the conditions set out in item 28, 34, 55, 58, 59, 60, 61, 62, 63, 64, 65, 66, 75, 76, 79, 80, 81, 86, 87.</p> <p>When planning the above components of the construction site, it is necessary to ensure limitation of their area to a minimum.</p>	Contractor
6.	Protection of biotic nature, protection of water	<i>Task implementation area</i>	<p><b><i>Conditions for location of site facilities, backyards, storage sites etc.</i></b></p> <p>Site facilities, equipment unit bases, maneuvering sites, access sites, storage sites for soil and construction materials etc. should be located:</p> <ul style="list-style-type: none"> <li>a) outside the areas covered with high greenery (trees, shrubs) intended to be preserved in the civil engineering design and in accordance with the conditions set out in item 19;</li> <li>b) outside the area of nature habitats (see also item 25), especially riparian forests, and outside the area of habitats and places of occurrence of protected species;</li> <li>c) outside the embanked areas;</li> <li>d) at a distance of not less than 100 m from the existing water-courses, reservoirs and wetland sites;</li> <li>e) in sites ensuring the absence of noise impacts on acoustically protected areas.</li> </ul> <p>Designed locations of site facilities as well as the remaining above-mentioned elements of the construction site should be agreed with a team of environmental experts, referred to in item 98 (including <i>i.a.</i> a phytosociology expert) and submitted, together with the above-mentioned arrangements, to the Engineer for approval.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
7.	Protection of biotic nature, protection of water	<i>Task implementation area</i>	<p><b>Conditions for location of technological roads</b></p> <p>Technological roads should be located:</p> <ul style="list-style-type: none"> <li>a) outside the areas covered with high greenery (trees, shrubs) intended to be preserved in the civil engineering design and in accordance with the conditions set out in item 19;</li> <li>b) outside the area of nature habitats (see also item 25), especially riparian forests, and outside the area of habitats and places of occurrence of protected species. If this condition cannot be met in a given location, technological roads shall be located in the immediate vicinity of the executed works and occupy only the smallest surface area necessary of the abovementioned habitats;</li> <li>c) to the extent possible: outside the embanked areas;</li> <li>d) as far as possible from the existing watercourses, reservoirs and wetland sites;</li> <li>e) in the first place on the existing roads, including the existing roads on and next to the embankments;</li> <li>f) technological roads related to the demolition of the existing flood embankment shall be routed in accordance with the conditions set out in item 44.</li> </ul> <p>Designed locations of technological roads should be agreed with the team of environmental experts referred to in item 98 (including <i>i.a.</i> a phytosociology expert) and submitted, together with the above arrangements, to the Engineer for approval.</p>	Contractor
8.	Protection of the earth surface, protection of biotic nature, protection of water and soil	<i>Task implementation area</i>	<p><b>Economical use of the terrain and limitation of works execution in the embanked area</b></p> <p>The entire <i>Task implementation area</i> shall be used economically and its surface shall be transformed to the smallest extent possible.</p> <p>All works related to Task implementation shall be executed outside the current range of the embanked area to the largest extent possible.</p>	Contractor



Item	Issue	Place	Mitigation measure	Entity
<b>D. REQUIREMENTS CONCERNING QUALITY AND USE OF LANDS</b>				
9.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Examination of quality (state of pollution) of land on the Task implementation area</b></p> <p>Prior to the commencement of earthworks, it is necessary to perform the quality examination (pollution status) of land on the <i>Task implementation area</i> (including earth mass outside the riverbeds of watercourses and sedimentation in riverbeds of watercourses), designed to:</p> <ul style="list-style-type: none"> <li>a) development within the boundaries of the construction site (including the use for construction purposes), or</li> <li>b) removal out of the boundaries of the construction site.</li> </ul> <p>The aim of the examination is to:</p> <ul style="list-style-type: none"> <li>a) determine the possibilities of these land use within the boundaries of the construction site, in accordance with applicable regulations, and</li> <li>b) establish an acceptable method of dealing with the land not usable within the construction site boundaries.</li> </ul> <p>The examination should be performed in accordance with current regulations, including the <i>Waste Act</i>, <i>Environmental Protection Law</i> and implementing acts to the above laws.</p> <p>The examination should be carried out by accredited laboratory, approved by the Engineer.</p> <p>Before starting the examination, the Contractor shall submit the methodology of planned examination to the Engineer for approval.</p>	Contractor
10.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Use of lands coming from the construction site</b></p> <p>Lands located on the construction site (including the earth mass outside the watercourse riverbeds and the settlement of watercourse riverbeds) should be used at the construction site in the first place. The remaining excess land should be used in accordance with the applicable regulations and the design documentation. The procedure for the waste land should be presented in the <i>Plan of waste management</i>, developed by the Contractor and submitted to the Engineer for approval before the commencement of works (according to item 78).</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
11.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>Requirements for land and aggregates coming from the outside of the construction site</i></b></p> <p>Land (including the earth mass) and aggregate used for construction works, and coming from outside the construction site, shall meet the requirements for soil quality standards and earth quality standards (in accordance with the <i>Environmental Protection Law</i> and its implementing acts), as well as in all other applicable regulations and standards (including the conditions of the item 53 of Appendix 1 EMP).</p> <p>On the stage of establishing locations for obtainment of land and aggregate to be applied for construction works, one shall obtain the following opinions:</p> <ul style="list-style-type: none"> <li>– of the environment expert board (referred to in item 98),</li> <li>– of the team of archaeological experts (referred to in item 99),</li> <li>– of the relevant Regional Directorate for Environmental Protection and</li> <li>– of the relevant heritage conservator,</li> </ul> <p>referring to the potential impact of obtainment of land and aggregate from these locations on the environment (including natural habitats, protected species and protected areas) and on objects of cultural value, and establishing potential additional conditions for the works associated with the obtainment of land and aggregate from the determined location.</p> <p>Those opinions shall be presented for the Engineer’s acceptance prior to commencing the extraction in the given location for obtainment of land and aggregate.</p> <p>The Contractor shall be obliged to observe establishments given in the aforementioned opinions in the <i>Task implementation period</i>.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
<b>E. REQUIREMENTS CONCERNING HANDLING OF TOPSOIL</b>				
12.	Protection of soil, protection of biotic nature	<i>Task implementation area</i>	<p><b>Removal, storage, and use of topsoil</b></p> <p>In order to protect topsoil in the <i>Task implementation area</i>:</p> <ul style="list-style-type: none"> <li>a) remove at least 0.2 m of fertile soil (referred to as topsoil) prior to commencement of any construction works in individual parts of the <i>Task implementation area</i> (this condition applies to all locations in the <i>Task implementation area</i> where the existing topsoil layer could become degraded in relation to works, movement, and maintenance of machinery and devices, storage of materials etc.);</li> <li>b) the removed topsoil should be stored in heaps not wider than 3 m and not higher than 1.5 m;</li> <li>c) the removed topsoil should be stored within the boundaries of the <i>Task implementation area</i> (optimum – within the area of site facilities). Detailed location of topsoil heaps should be agreed in advance with the environment expert board referred to in item 98 (including a phytosociology expert) so that storage of topsoil does not result in degradation of natural habitats and natural conservation sites for protected species and does not have a negative impact on health of trees and shrubs (see the condition in item 19);</li> <li>d) stored topsoil heaps should be protected from damage, running over, thickening, storage of construction materials, etc.;</li> <li>e) stored topsoil heaps should be regularly sprinkled with water depending on the weather (never allow the heaps to become dry for over 5 days) and protected against freezing (e.g. using straw mats for this purpose);</li> <li>f) after completion of construction works, stored topsoil should be used to restore the layer of fertile soil as per the conditions specified in item 47 of the table.</li> </ul>	Contractor

Item	Issue	Place	Mitigation measure	Entity
<b>F. REQUIREMENTS CONCERNING TREES AND SHRUBS FELLING</b>				
13.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Permissible dates for felling of trees and shrubs</b></p> <p>Felling of trees and shrubs shall be carried out only in the period from August 16<sup>th</sup> to March 14<sup>th</sup> (an absolute prohibition of such work in the period from March 15<sup>th</sup> to August 15<sup>th</sup>).</p> <p>The optimal time for carrying out such work is the period from September 1<sup>st</sup> to the end of February (in the period from August 16<sup>th</sup> to August 31<sup>st</sup> and from March 1<sup>st</sup> to March 14<sup>th</sup> the abovementioned scope of works should be limited to the largest extent possible).</p> <p>The performance of the abovementioned works in the period from August 16<sup>th</sup> to August 31<sup>st</sup> and from March 1<sup>st</sup> to March 14<sup>th</sup> requires a prior favorable opinion of the expert ornithologist (referred to in item 98), allowing their execution in a given location and establishing specific conditions for executing such works. The expert ornithologist’s opinion shall be submitted to the Engineer for approval.</p>	Contractor
14.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Permissible dates for felling of shrub species which are host plants for the caterpillars of Scarce swallowtail</b></p> <p>Felling of shrub species which are host plants for the caterpillars of Scarce swallowtail <i>Iphiclides podalirius</i> (i.e. Blackthorn, Plum, Black cherry, Hawthorn, Pear) shall be carried out only in the period from October 1<sup>st</sup> to March 14<sup>th</sup> (an absolute prohibition of such work in the period from March 15<sup>th</sup> to September 30<sup>th</sup>).</p> <p>Before felling the abovementioned shrub species, an expert entomologist (referred to in item 98) should ensure that there are no wintering pupae of Scarce swallowtail on the shrubs anticipated for felling (the pupae of that butterfly species winter on plants, attached to them just above the ground).</p> <p>If the presence of the pupae is established, the felling of the shrub specimens in question shall be performed manually under the supervision of the abovementioned expert entomologist so as not to injure the wintering pupae of the butterfly.</p> <p>Detailed principles of handling the pupae found on the shrubs anticipated for felling shall be agreed with the abovementioned expert entomologist in advance and the results of those arrangements shall be submitted to the Engineer for approval.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
15.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Limitation of the scope of tree and shrub felling and environmental supervision in determining trees and shrubs for felling</i></b></p> <p>Felling of trees and shrubs shall be limited to the necessary minimum.</p> <p>The scope of felling shall be limited especially:</p> <ul style="list-style-type: none"> <li>– in the patches of willow riparian forest (in the embanked area along the Odra river);</li> <li>– in the patches of ash-alder riparian forest (in branches No. 206a, 208a, 210a, 211a in the Gubin Forest District);</li> <li>– in the patches of oak-elm-ash riparian forest (in branches No. 207a, 206c in the Gubin Forest District);</li> <li>– in the neighborhood of the disassembled sections of the existing flood embankment along the Odra river.</li> </ul> <p>Determination of trees and shrubs for felling in the <i>Task implementation area</i> should be carried out under the supervision of the team of environmental experts referred to in item 98 in order to preserve as much of individual patches of natural habitats as possible and to preserve the biggest possible number of environmentally valuable tree and shrub specimens.</p>	Contractor
16.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Environmental supervision prior to and during clearance of trees of circumference at breast height above 40 cm</i></b></p> <p>The following rules apply to removal of trees of circumference at breast height above 40 cm:</p> <ol style="list-style-type: none"> <li>a) clearance of trees of circumference at breast height above 40 cm should be preceded by an inspection of the trees for the presence of protected bats and invertebrates carried out by an expert entomologist and chiropterologist (referred to in item 98), not longer than 1 week prior to removal of a given tree;</li> <li>b) if presence of protected invertebrate and/or bat species is confirmed in trees to be felled, the abovementioned experts shall indicate permissible felling dates and procedures for handling wood inhabited by protected animal species. Felling dates agreed with the abovementioned experts should not violate the conditions specified in item 13 (for trees in which the presence of bats was found, the optimum felling period is from September 1<sup>st</sup> to October 31<sup>st</sup>);</li> <li>c) trees of circumference at breast height above 40 cm will be felled under direct supervision of the abovementioned expert entomologist and expert chiropterologist;</li> <li>d) should any presence of protected invertebrate and/or bat species specimens be confirmed in trees subject to felling, the abovementioned experts shall specify procedures for handling wood inhabited by the protected animal species and procedures to limit mortality rate of any found protected animal specimen;</li> <li>e) the transfer of specimen of protected invertebrates species and/or bats from trees intended for felling and/or from trees subject to felling may be done only under direct supervision of the abovementioned experts – entomologist and chiropterologist;</li> <li>f) should any presence of protected invertebrate and/or bat species be confirmed in trees to be felled and/or in trees being</li> </ol>	Contractor

Item	Issue	Place	Mitigation measure	Entity
			felled, obtain a legally required administrative decision for derogation from prohibitions regarding protected animal species (if required in each case).	
17.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Completion date for felling of trees and shrubs</b></p> <p>All works related to felling of trees and shrubs in the <i>Task implementation area</i> (including extraction of stumps and removal of wood) should be completed within the first 12 months following commencement of the Part of Contract involving implementation of the Task (within periods referred to in items 13 and 14).</p>	Contractor
<b>G. REQUIREMENTS CONCERNING PROTECTION OF TREES AND SHRUBS NOT INTENDED FOR FELLING</b>				
18.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Protection of stumps of trees not intended for felling</b></p> <p>Prior to commencement of any construction works, the stumps of trees exposed to mechanical damage should be protected with wooden boards to a height of 2-3 m from the ground level (bottom of the boards is to be based on the substrate).</p> <p>Between the boards and the surface of the tree trunk, place the flexible material (e.g. thick straw mats), protecting the stump against abrasion by boards.</p> <p>Boards must be attached to the stump (e.g. with the bands of wire or steel tape), in a manner that does not damage the tree).</p> <p>In the <i>Task implementation period</i> the condition of protection of tree trunks exposed to damage should be controlled on regular basis and the protections should be kept in duly condition.</p> <p>The abovementioned trunk protections shall be removed after works completion.</p>	Contractor
19.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Protection of areas below tree and shrub crowns</b></p> <p>Construction works should be carried out in a manner not damaging trees and shrubs not intended for felling.</p> <p>The following are forbidden within 1 meter from the projection of tree or shrub crown (for trees and shrubs not intended for felling):</p> <ul style="list-style-type: none"> <li>a) establishing technological roads, yards, parking spots, and other elements that could affect soil compaction and change in aeration;</li> <li>b) vehicles, machinery and devices traffic, stopping, and parking;</li> <li>c) storage of earth mass (including topsoil) and construction materials (in particular loose materials).</li> </ul> <p>It is forbidden to store cement, aggregate, oils, fuels and binders less than 10 m away from the trunks of trees and shrubs not intended for felling.</p> <p>The manner of forming and compacting the embankments in the neighborhood of the trees and shrubs not intended for felling shall be agreed with an expert dendrologist (referred to in item 98) and the results of those arrangements shall be submitted to the Engineer for approval.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
20.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Preventive cutting the tree branches exposed to damage</b></p> <p>In the case of boughs and branches exposure to mechanical damage by working or moving vehicles, machinery and devices, preventive cuts of tree branches exposed to breakage should be performed.</p> <p>These cuts – performed under the supervision of an expert dendrologist (referred to in item 98) – cannot disturb the natural habit of the trees (they cannot cover more than 1/3 of the green mass of trees), maintaining stability and statics of trees (range of cuts must be uniform at each side of the crown).</p>	Contractor
21.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Works within tree and shrub root mass</b></p> <p>Concerning trees and shrubs not intended for felling, any works within tree and shrub root mass should be carried out by hand, maintaining the following conditions:</p> <ul style="list-style-type: none"> <li>a) do not cut the coarse roots (with a diameter above 4 cm);</li> <li>b) excavations should be carried out not closer than 2 m from the trunk;</li> <li>c) minimize the time of exposure of roots to drying (under the conditions referred to in item 22);</li> <li>d) an optimal period for executing the works in question is the period from October to April.</li> </ul>	Contractor
22.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Preservation of exposed tree and shrub roots</b></p> <p>Exposed roots of trees and shrubs not intended for felling should be covered, for example with straw or jute mats.</p> <p>At positive temperatures, the mats should be watered (to prevent roots drying). At negative temperatures, the mats should be kept dry (to prevent root frost penetration).</p>	Contractor
23.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Preservation of damaged trees and shrubs</b></p> <p>Should any aerial parts of trees or shrubs not intended for felling become damaged, necessary maintenance works appropriate for the location and type of damage should be immediately implemented.</p> <p>In the case of damaged roots, cut away damaged tips and treat the root with an antifungal agent.</p> <p>The abovementioned activities should be performed upon agreement with the environment expert board (referred to in item 98). Following the activities an opinion of the board as regards correctness of the actions should be presented to the Engineer for acceptance.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
<b>H. REQUIREMENTS CONCERNING SECURING OF THE PROTECTED NATURAL RESOURCES</b>				
24.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>One-time environmental stock-taking within the works area before works commencement</b></p> <p>Before the works begin a one-time environmental stock-taking within the <i>Task implementation area</i> shall be carried out, prepared by environmental experts team referred to in item 98. The purpose of the stock-taking is to determine the current distribution of the natural habitats and habitats and sites of protected flora and fauna species, including on-going verification of information regarding this subject and included in the <i>Environmental Impact Report</i> elaborated in 2010 and in the <i>Project Information Card</i> elaborated in 2014 (along with later amendments to these documents).</p> <p>In the case of detecting natural habitats, habitats or sites of protected fauna and flora species within the <i>Task implementation area</i> the following actions should be executed:</p> <ul style="list-style-type: none"> <li>a) in case of natural habitats – discuss further actions with the relevant expert of the environmental team (referred to in item 98), and forward the results of the arrangements to the Engineer for approval;</li> <li>b) in case of habitats or sites of protected species – execute actions referred to in item 36 and 37.</li> </ul>	Contractor
25.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Marking the boundaries of the patches containing natural habitats</b></p> <p>Before the works begin, boundaries of patches containing natural habitats to be left intact (at the <i>Task implementation area</i> and within its near vicinity, according to the information contained in <i>Environmental Impact Report</i>, <i>Project Information Card</i> and results of the one-time environmental stock-taking referred to in item 24) should be set down and marked on site (in the manner visible to the works contractors).</p> <p>These activities should be carried out under the supervision of an expert phytosociologist referred to in item 98.</p> <p>Within the abovementioned natural habitats site facilities, technological roads or yards cannot be located and materials cannot be stored there (see also item 6 and 7).</p> <p>Within the <i>Task implementation period</i> these patches must be secured against destruction, damage, contamination, traffic of vehicles, machinery and devices, and free access of persons in connection with the works (e.g. by establishing marked fences).</p> <p>Throughout the whole <i>Task implementation period</i> the condition of the protective measures of the patches containing the habitats should be inspected on a regular basis (at least once a month) and possible damages should be removed. These inspections should be carried out with the participation of the abovementioned expert phytosociologist.</p> <p>[see also: item 44]</p>	Contractor
26.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Limiting the Task implementation time</b></p> <p>The Contractor is obliged to organize the works in a way that would help reduce the Task implementation time to the minimum and limit the negative impact of works on the animals living within this area and in its surrounding.</p>	Contractor



Item	Issue	Place	Mitigation measure	Entity
27.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Limitation of the influence on the water regime in natural habitats</b></p> <p>One shall apply technical solutions guaranteeing the limitation of changes of the natural water regime which might influence the natural habitats located in the <i>Task implementation area</i> and within its vicinity to the necessary minimum.</p> <p>In particular, the following principles shall be observed:</p> <ul style="list-style-type: none"> <li>a) one shall preserve the diverse microrelief in the current embanked area;</li> <li>b) the earth masses must not be temporarily or permanently deposited in any terrain hollows located in the current embanked area or in the terrain within the boundaries of the new embanked area, except the following areas: <ul style="list-style-type: none"> <li>– plots No. 496/1, 497/1 and 685 Czarnowo precinct;</li> <li>– plot No. 36/13, Chlebowo precinct, surface area of up to 2.2 ha.</li> </ul> </li> </ul> <p>Attention: Before commencing the implementation of this measure, one shall identify the current location of the boundaries of the areas described using record plots numbers (see clause b), according to the conditions set out in item 95.</p>	Contractor
28.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Protecting the Task implementation area against entering of small animals</b></p> <p>The works should be executed in a way allowing avoiding killing animals.</p> <p>The <i>Task implementation area</i>, particularly:</p> <ul style="list-style-type: none"> <li>– sites of on-going works,</li> <li>– site facilities, storage yards, etc.,</li> <li>– terrain hollows which might store water (i.e. places with suitable conditions to be inhabited by amphibians),</li> </ul> <p>should be secured against entering small animals (amphibians, reptiles, small mammals) with a metal net of mesh size not larger than 0.5 x 0.5 cm and of the height of at least 0.6 m above ground level. The net should be buried into the ground to the depth of at least 30 cm.</p> <p>The net should be equipped with the so-called overhang i.e. the deflection of (at least 5 cm) of material in the upper part to the outside (i.e. towards the surrounding area), at the angle of 45-90°</p> <p>Determining the detailed location of the fences protecting the <i>Task implementation area</i> against entering of small animals, and establishing these fences should be executed under supervision of expert herpetologist and teriologist (referred to in item 98).</p> <p>Within the whole <i>Task implementation period</i> the condition of these fences should be inspected on a regular basis and possible leaks should be removed, and it must be remembered that:</p> <ul style="list-style-type: none"> <li>a) In the period between March 1<sup>st</sup> and August 31<sup>st</sup> the inspections should be carried out at least once in 3 days;</li> <li>b) In the period between September 1<sup>st</sup> and last of February <ul style="list-style-type: none"> <li>– at least once in 10 days.</li> </ul> </li> </ul> <p>Inspection of the fences should be carried out with the participation of the abovementioned experts.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
29.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Inspections of places that could be a trap for small animals</i></b></p> <p>It is necessary to monitor excavations and other places that may be a trap for animals: amphibians, reptiles, small mammals every morning.</p> <p>In the period from March 1<sup>st</sup> to May 15<sup>th</sup> and from September 15<sup>th</sup> to October 15<sup>th</sup> also the second inspection should be carried out every day in the late afternoon.</p> <p>Trapped animals should be caught and released beyond the <i>Task implementation area</i>, in the appropriate place for the species.</p> <p>The last check of the presence of animals in excavations shall be carried out immediately before backfilling the excavation.</p> <p>The checks shall be carried out under the direction and in accordance with the guidelines of the expert herpetologist and teriologist (referred to in item 98), who will also coordinate and suggest the places to release the caught animal species.</p> <p>All wells and other anthropogenic objects that can be a trap for amphibians and small mammals should be protected according to notes and under the guidance of the abovementioned expert herpetologist and teriologist.</p>	Contractor
30.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Current elimination of isolated still water pools in the Task implementation area</i></b></p> <p>During the <i>Task implementation period</i>, it is necessary to eliminate the isolated still water pools on a regular basis in the places that might interfere with ongoing or planned works and in the places of current or planned traffic of vehicles, machines and devices.</p> <p>This action is intended to prevent the settling of protected species of amphibians in the <i>Task implementation area</i> during the period of the works. This action should be carried out in consultation with the expert herpetologist (referred to in item 98), who will also supervise the correctness of the implementation thereof.</p>	Contractor
31.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Ensuring safe migration possibilities for amphibians</i></b></p> <p>The works shall be carried out in a way that ensures the possibility of safe migration of amphibians, including the migration of amphibians through the designed internal roads in the <i>Task implementation area</i>.</p> <p>The detailed rules for the implementation of this condition should be agreed with an expert herpetologist (referred to in item 98), who will also supervise its proper implementation.</p> <p>The abovementioned agreement with an expert herpetologist must be submitted to the approval of the Engineer.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
32.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Catching and relocating small animals from the Task implementation area</i></b></p> <p>In the case of appearance of small animals (fish and lampreys, amphibians, reptiles, small mammals, bats) within the <i>Task implementation area</i> (in places where executed works may pose a risk to their life or health), they should be caught and relocated from the <i>Task implementation area</i> to appropriate habitats outside the range of impact of the works.</p> <p>The abovementioned actions should be executed under supervision of a relevant environmental expert (ichthyologist, herpetologist, teriologist and/or chiropterologist, referred to in item 98.</p> <p>[see also item 29, 36 and 37]</p>	Contractor
33.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Fighting alien invasive plant species</i></b></p> <p>During carrying out the works, alien invasive plant species should be removed (at least twice a year, within the whole <i>Task implementation area</i>) until they disappear and are replaced with local vegetation.</p> <p>The alien invasive plant species should be pulled out (together with root ball), transported away and disposed of.</p> <p>These actions should be performed according to the detailed guidelines specified by the expert phytosociologist (referred to in item 98).</p>	Contractor
34.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Construction site lighting limiting the attraction and death rate of insects</i></b></p> <p>The construction site (together with site facilities etc.) shall be lit with lamps emitting a warm spectrum (2800 to 4500 K) and equipped with tight fixtures.</p>	Contractor
35.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>On-going inspections of the environmental experts team within the Task implementation period</i></b></p> <p>All works executed within the <i>Task implementation period</i> shall be carried out under the supervision of environmental experts team (referred to in item 98).</p> <p>These experts should carry out inspections of the whole <i>Task implementation area</i> on a regular basis (at least once a month) and communicate their findings and suggestions to the Contractor's staff responsible for implementation of works in conformity with the EMP conditions.</p> <p>The inspections should be followed by written notes attached to monthly reports on implementation of the EMP conditions (referred to in item 102).</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
36.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Obtaining a decision permitting derogations from the rules of species-specific protection for plants, fungi and animals for the habitats or sites of protected species listed in the EIA Report and in the Project Information Card</i></b></p> <p>With regard to the resources of the protected species of plants, fungi and animals listed in the <i>Environmental Impact Report</i> elaborated in 2010 and in the <i>Project Information Card</i> elaborated in 2014 (along with later amendments to these documents), the following actions should be taken before works commencement:</p> <ul style="list-style-type: none"> <li>a) the Contractor shall acquire and hand over a written opinion of the environmental experts team (referred to in item 98) for the Engineer approval, including the following information: <ul style="list-style-type: none"> <li>– scope of the possible impact of the works on the detected natural resources and</li> <li>– the necessity to obtain the decision referred to in clause b, and shall take the actions mentioned in clauses b–d below, if it is indispensable in the light of this opinion;</li> </ul> </li> <li>b) before taking any actions that could endanger the habitats and sites, or scare a protected species away (according to the opinion referred to in clause a), the Contractor shall be obliged to obtain an administrative decision required by the governing law that would allow for exceptions from the bans regarding the protected species of plants, fungi and animals;</li> <li>c) the decision has to be forwarded to the Engineer;</li> <li>d) the Contractor shall be obliged to a precise and timely implementation of the terms of the abovementioned decision.</li> </ul> <p>[see also item 24]</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
37.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Obtaining a decision permitting derogations from the rules of species-specific protection for plants, fungi and animals, for the newly discovered habitats or sites of protected species</i></b></p> <p>If new habitats or new sites of protected plants, fungi and animals species (other than the sites referred to in item 36) are discovered in the <i>Task implementation area</i> before the commencement or during the execution of works, the following actions shall be taken:</p> <ul style="list-style-type: none"> <li>a) the Contractor shall acquire and hand over a written opinion of the environmental experts team (referred to in item 98) for the Engineer approval, including the following information: <ul style="list-style-type: none"> <li>– scope of the possible impact of the works on the detected natural resources and</li> <li>– the necessity to obtain the decision referred to in clause b, and shall take the actions mentioned in clauses b–d below, if it is indispensable in the light of this opinion;</li> </ul> </li> <li>b) before taking any actions that could endanger the habitats and sites, or scare a protected species away (according to the opinion referred to in clause a), the Contractor shall be obliged to obtain an administrative decision required by the governing law that would allow for exceptions from the bans regarding the protected species of plants, fungi and animals;</li> <li>c) the decision has to be forwarded to the Engineer;</li> <li>d) the Contractor shall be obliged to a precise and timely implementation of the terms of the abovementioned decision.</li> </ul> <p>[see also item 24]</p>	Contractor
<b>I. DETAILED REQUIREMENTS FOR THE WORKS RELATED TO THE DEMOLITION OF THE EXISTING FLOOD EMBANKMENT</b>				
38.	Protection of biotic nature	<i>Task implementation area (the existing flood embankment and its surroundings)</i>	<p><b><i>Environmental supervision over the demolition works of the existing flood embankment</i></b></p> <p>All works related to the demolition of the existing flood embankment shall be performed under the supervision of the team of environmental experts (including a phytosociology expert) referred to in item 98.</p> <p>Their task will be to specify a proper method of work execution, check if the works are performed correctly and ensure implementation of relevant actions in case of risk to natural habitats and to habitats or specimens of protected species.</p> <p>During the time of the execution of works related to the demolition of the existing flood embankment, the abovementioned experts should carry out regular inspections of the sites (at least once in three days) and forward their opinions and suggestions on regular basis to the Contractor's staff responsible for execution of works accordingly to the EMP conditions.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
39.	Protection of biotic nature	<i>Task implementation area</i> (the existing flood embankment and its surroundings)	<p><b>Permissible dates of the demolition works of the existing flood embankment</b></p> <p>Demolition of the existing flood embankment should be carried out only in the period from August 16<sup>th</sup> to March 14<sup>th</sup> (prohibition of such work in the period from March 15<sup>th</sup> to August 15<sup>th</sup>), in accordance with the conditions set out in item 41.</p>	Contractor
40.	Protection of biotic nature	<i>Task implementation area</i> (the existing flood embankment and its surroundings)	<p><b>Permissible dates of backfilling the delineated areas with the earth material coming from the demolition of the existing flood embankment</b></p> <p>Backfilling the delineated areas with the earth material coming from the demolition of the existing flood embankment should be carried out only in the period from August 16<sup>th</sup> to March 14<sup>th</sup> (prohibition of such work in the period from March 15<sup>th</sup> to August 15<sup>th</sup>).</p>	Contractor
41.	Protection of biotic nature	<i>Task implementation area</i> (the existing flood embankment and its surroundings)	<p><b>Permissible dates of the demolition works of the existing flood embankment on the section from chainage km 530.5 to km 531.5</b></p> <p>Demolition of the existing flood embankment on the section from chainage km 530.5 to km 531.5 should be carried out only in the period from September 1<sup>st</sup> to March 14<sup>th</sup> (prohibition of such work in the period from March 15<sup>th</sup> to August 31<sup>st</sup>).</p> <p>Before commencing embankment demolition on the abovementioned section, one shall perform the actions described in item 42 and 50.</p>	Contractor
42.	Protection of biotic nature	<i>Task implementation area</i> (the existing flood embankment and its surroundings)	<p><b>Mowing of the existing flood embankment on the section from chainage km 530.5 to km 531.5 in the year of the planned demolition</b></p> <p>Before commencing the demolition of the existing flood embankment on the section from chainage km 530.5 to km 531.5, the embankment shall be mowed to ensure that Great burnet <i>Sanguisorba officinalis</i> (a host plant for the protected butterfly species of the <i>Phengaris/Maculinea</i> genus) does not flower in the year of the planned demolition of a given embankment section.</p> <p>The detailed dates of mowing the abovementioned embankment section shall be agreed with the expert phytosociologist and the expert entomologist (referred to in item 98).</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
43.	Protection of biotic nature	<i>Task implementation area</i> (the existing flood embankment and its surroundings)	<p><b><i>Retaining a fragment of the existing flood embankment on the section located west of the ferry crossing in Połęcko</i></b></p> <p>One shall preserve (i.e. not demolish) the longest possible fragment of the existing flood embankment on the section located west of the ferry crossing in Połęcko.</p> <p>The detailed boundaries of the fragment of the existing embankment planned to be retained (i.e. not demolished) shall be agreed with the team of environmental experts referred to in item 98.</p>	Contractor
44.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Execution of the works related to the demolition of the existing flood embankment within the embankment toe outline boundaries</i></b></p> <p>The works related to the demolition of the existing flood embankment (especially in the area of natural habitats referred to in item 25) shall be executed to the largest extent possible within the toe outline boundaries of the demolished flood embankment (to limit terrain occupation and the destruction of natural habitats beyond the embankment toe outline).</p> <p>This action shall be carried out in consultation with an expert phytosociologist (referred to in item 98), who shall also supervise its implementation correctness.</p>	Contractor
<b>J. DETAILED REQUIREMENTS CONCERNING LIQUIDATION OF THE EXISTING WATER RESERVOIRS</b>				
45.	Protection of biotic nature	<i>Task implementation area</i> (places of water reservoir liquidation)	<p><b><i>Water reservoir liquidation principles</i></b></p> <p>If it is necessary to liquidate the existing water reservoirs (including a small water body located at the eastern end of the <i>Task implementation area</i>, near the toe of the existing flood embankment), the implementation of such actions shall take into account the following conditions:</p> <ul style="list-style-type: none"> <li>a) the water reservoir shall be backfilled in the period from September 1<sup>st</sup> to September 30<sup>th</sup>;</li> <li>b) before commencing the liquidation of a given water reservoir, it shall be inspected by the team of environmental experts referred to in item 98 to assess the present population of aquatic animals in the reservoir (especially protected species);</li> <li>c) if it is established that the reservoir is inhabited by aquatic animals (especially protected species), those animals shall be caught and moved to habitats appropriate for them which are located beyond the works impact range, in a manner agreed with the relevant environmental expert. If protected species are moved, that activity shall be performed in accordance with the conditions set out in item 36 and 37;</li> <li>d) the reservoir shall be backfilled gradually (in a manner allowing the animals that might remain there to leave the reservoir);</li> <li>e) detailed principles of implementing the abovementioned conditions shall be agreed with the abovementioned team of environmental experts, which shall also supervise their implementation correctness.</li> </ul>	Contractor

Item	Issue	Place	Mitigation measure	Entity
<b>K. DETAILED REQUIREMENTS FOR THE WORKS CONCERNING POWER LINE RELOCATION</b>				
46.	Protection of biotic nature	<i>Task implementation area</i> (the reconstructed power line)	<p><b>Conditions for the relocated power line</b></p> <p>The wires of the new (reconstructed) power line running above the flood embankment shall be marked in a manner ensuring its visibility to flying birds (by placing spirals in two colors [yellow and grey] spaced every 10 m on the shieldwires).</p> <p>The markers shall be assembled under the management and according to the guidelines of an expert ornithologist (referred to in item 98).</p>	Contractor
<b>L. REQUIREMENTS CONCERNING LAND RECLAMATION AFTER WORKS</b>				
47.	Protection of biotic nature, protection of soil	<i>Task implementation area</i>	<p><b>Reconstruction of the topsoil layer and green areas, and ordering the area after work completion</b></p> <p>When the works are completed, the following actions should be done:</p> <ol style="list-style-type: none"> <li>1) dismantling of the site facilities and roads and technological yards, and removing the road panels and collected sand from the ballast beyond the <i>Task implementation area</i> to the destination place indicated previously (approved by the Engineer);</li> <li>2) on the areas occupied in connection with the execution of the Task (within the <i>Task implementation area</i>) the appropriate agricultural practices (loosening of soil, fertilizing, etc.) preparing to restoration of the fertile layer of soil shall be performed;</li> <li>3) on the areas occupied in connection with the execution of the Task (within the <i>Task implementation area</i>) the fertile layer of soil shall be restored (among other with the use of topsoil collected from the area according to the conditions of item 12);</li> <li>4) carrying out procedures enhancing reconstruction of green areas (including sowing and planting trees, using domestic plants only, according to the local habitat conditions and in accordance with design documentation);</li> <li>5) ensuring proper care of the reconstructed green areas (until the Defects Notification Period is over);</li> <li>6) ordering the <i>Task implementation area</i>.</li> </ol> <p>The actions specified in clause 2, 3, 4 and 5 (above) should be performed under the supervision of experts phytosociologist and dendrologist (referred to in item 98), which would cover the following items:</p> <ol style="list-style-type: none"> <li>a) agreeing upon precise timelines of works;</li> <li>b) agreeing upon species composition and quantity proportions of seed mix to be sown;</li> <li>c) agreeing upon conditions for preparing the soil and planting material;</li> <li>d) agreeing upon rules of care of the reconstructed green areas;</li> <li>e) communicating the arrangements to the Engineer for approval;</li> <li>f) supervision over carrying out the procedures enhancing reconstruction of the green areas and their care (until the Defect Notification Period is over).</li> </ol> <p>The actions regarding reconstruction of the topsoil layer and green</p>	Contractor



Item	Issue	Place	Mitigation measure	Entity
			<p>areas referred to in this item of the EMP shall begin at the earliest possible date allowing its implementation.</p> <p>The implementation of the works specified in this item of the EMP can begin only upon approval of the detailed <i>Quality Assurance Plan</i> concerning these works by the Engineer.</p>	
<b>M. REQUIREMENTS CONCERNING RESTORATION OF NATURAL RESOURCES</b>				
48.	Protection of biotic nature	<i>Task implementation area</i> (planting locations of Pedunculate oaks)	<p><b>Planting of Pedunculate oaks</b></p> <p>Before completing the basic construction works, one shall plant at least 60 Pedunculate oaks <i>Quercus robur</i> with a trunk circumference of at least 15 cm in the area within the boundaries of the Gubin Forest District.</p> <p>Tree seedlings applied for planting shall be taken from the native seed area only.</p> <p>The planting shall be executed in the locations meeting the following conditions:</p> <ul style="list-style-type: none"> <li>– located beyond the areas of forest stands;</li> <li>– located, as far as possible, within boundaries of the extended embanked area of Odra (an optimal location);</li> <li>– indicated by the expert phytosociologist and the expert dendrologist (referred to in item 98) as locations which are appropriate for the development of Pedunculate oaks and shall enable later population of the planted trees by protected insect species: <i>Lucanus cervus Lucanus cervus</i>, Great capricorn beetle <i>Cerambyx cerdo</i> and Hermit beetle <i>Osmoderma eremita</i>;</li> <li>– agreed with the relevant Forest District manager.</li> </ul> <p>The planted trees shall be tended for at least 3 years.</p> <p>During the <i>Task implementation period</i>, the actions listed above (planting and maintenance works) shall be carried out under supervision of the abovementioned experts botanist-phytosociologist and dendrologist, covering, <i>i.a.</i>:</p> <ol style="list-style-type: none"> <li>a) setting a precise time frame of the works;</li> <li>b) agreeing on detailed location of the plantings;</li> <li>c) setting conditions of soil and seedlings preparation;</li> <li>d) agreeing on principles for plantings maintenance works;</li> <li>e) referring the results of the agreements listed above to the Engineer for approval;</li> <li>f) supervision over the performance of plantings as well as supervision over the maintenance of the performed plantings (by the end of the Defects Notification Period).</li> </ol> <p>The agreements referred to in clauses a-d should include requirements set out in the project documentation in this regard.</p> <p>The activities related to the performance of the planting referred to in this EMP item shall commence as soon as possible (plantings must be performed prior to the completion of basic construction works).</p> <p>Prior to the commencement of the performance of the conditions set out in this EMP item, a detailed <i>Quality Assurance Plan</i> relating to the abovementioned works shall be submitted to the Engineer for approval.</p>	Contractor (during <i>Task implementation period</i> ) Employer (after <i>Task implementation period</i> [exclusively in respect of maintenance works throughout the operation period])

Item	Issue	Place	Mitigation measure	Entity
49.	Protection of biotic nature	<i>Task implementation area</i> (places of hanging boxes for bats)	<p><b>Installation of boxes for bats</b></p> <p>Before completing the basic construction works, one shall hang boxes for bats in the area within the boundaries of the Gubin Forest District.</p> <p>The boxes shall be hung in the locations meeting the following conditions:</p> <ul style="list-style-type: none"> <li>– on the edges of pine monocultures next to the boundary between them and the open spaces, at least 200 m away from the edge of the flood embankment;</li> <li>– in sunny places sheltered from the wind, with a south-eastern, southern or south-western exposure;</li> <li>– in the places indicated by the expert chiropterologist (referred to in item 98) and agreed with the competent Forest District manager.</li> </ul> <p>The boxes shall be hung in groups of 10-20 spaced every 50-120 m, 4 m above the ground or higher.</p> <p>The boxes shall be hung in the period from October to March.</p> <p>The detailed location of boxes and box model shall take into account the requirements of particular bat species and shall be agreed with the abovementioned expert chiropterologist.</p> <p>The results of the agreements with the abovementioned expert chiropterologist and the forest management superintendent on the location of boxes must be submitted to the Engineer for approval.</p> <p>Hanging the boxes should be done in consultation with and under direct supervision of the abovementioned expert chiropterologist.</p> <p>During the <i>Task implementation period</i>, the contractor shall provide annual cleaning and necessary maintenance of boxes (including their replacement in case of wear), conducted with the participation, under the supervision and as per indications of the abovementioned expert chiropterologist.</p> <p>The maintenance of boxes should be limited to their repair (by means of improving the tightness of boxes and supplementing missing elements) and the removal of droppings. No chemical agents may be used for the maintenance of boxes. In case of a more serious damage or destruction of the box, it should be replaced with a new one.</p> <p>After completion of the <i>Task implementation period</i> (i.e. during the operation period) the annual cleaning and necessary maintenance of boxes (taking into account their replacement when worn), conducted with the participation, under the supervision and as per indications of an expert chiropterologist, shall be provided by the Employer (for at least 3 years).</p> <p>Prior to the commencement of the performance of the conditions set out in this EMP item, a detailed <i>Quality Assurance Plan</i> relating to the abovementioned works shall be submitted to the Engineer for approval.</p>	<p>Contractor (during <i>Task implementation period</i>)</p> <p>Employer (after <i>Task implementation period</i> [exclusively in respect of cleaning, maintenance and possible replacement of boxes throughout the operation period])</p>

Item	Issue	Place	Mitigation measure	Entity
50.	Protection of biotic nature	<i>Task implementation area</i> (surrounding the locations of demolishing the existing flood embankment and constructing a new flood embankment)	<p><b>Increasing the surface area of meadows with Great burnet</b></p> <p>Before commencing the demolition of the existing flood embankment, one shall perform the actions aimed at increasing the surface area of meadows with Great burnet <i>Sanguisorba officinalis</i> (a host plant for the protected butterfly species of the <i>Phengaris/Maculinea</i> genus) in the vicinity of the locations of demolishing the existing flood embankment and constructing a new flood embankment.</p> <p>Those actions may consist in increasing the share Great burnet in the existing meadow areas and/or creating of new areas of meadows with Great burnet.</p> <p>Detailed guidelines related to the implementation of the abovementioned condition shall be agreed with the expert phytosociologist and the expert entomologist (referred to in item 98) and the results of those arrangements shall be submitted to the Engineer for approval.</p> <p>Before commencing the implementation of the conditions set out in this EMP item, a detailed <i>Quality Assurance Plan</i> related to the abovementioned works shall be submitted to the Engineer for approval.</p>	Contractor (during <i>Task implementation period</i> ) Employer (after <i>Task implementation period</i> [exclusively in respect of maintenance works throughout the operation period])
51.	Protection of biotic nature	<i>Task implementation area</i>	<p><b>Enabling natural plant succession in the areas included in the embanked area</b></p> <p>One shall enable the natural plant succession process in the areas included in the embanked area to permit restoration of ecosystems and natural habitats characteristic of floodplains (especially riparian habitats – 6440, 91E0, 91F0).</p> <p>Therefore, one shall do the following in those areas:</p> <ul style="list-style-type: none"> <li>a) permit a spontaneous development of natural greenery without interference such as planting or sowing (except for the locations of performing the actions referred to in item 50);</li> <li>b) ensure periodic elimination of species which are foreign in geographic or habitat terms.</li> </ul> <p>Detailed guidelines related to the implementation of the abovementioned conditions shall be agreed with the expert phytosociologist referred to in item 98.</p>	Contractor (during <i>Task implementation period</i> ) Employer (in the operation period [after <i>Task implementation period</i> ])

Item	Issue	Place	Mitigation measure	Entity
52.	Protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Building of three water reservoirs for amphibians</i></b></p> <p>The Employer will seek to acquire land in the area between the old (to be demolished) and the new (to be constructed) flood embankment.</p> <p>In case the Employer obtains the aforementioned land, the Contractor shall design and develop 3 small water reservoirs within this area, which would form breeding and occurrence sites of amphibians.</p> <p>The reservoirs shall meet the following conditions:</p> <ul style="list-style-type: none"> <li>– total area of three reservoirs' bottom shall amount to at least 0.3 ha;</li> <li>– at least two bank slopes of each of the reservoirs shall have mild inclination allowing the amphibians for getting out of the reservoir freely;</li> <li>– depth of each of the reservoirs shall be designed to assure presence of water in the reservoir at water levels in Odra equal to or greater than SNQ (according to records of the closest existing water-gauge);</li> <li>– bank slopes of each of the reservoirs shall not be protected.</li> </ul> <p>Designs for each of the reservoirs shall be developed in cooperation with the expert herpetologist (referred to in item 98).</p> <p>After completion of designing the Contractor shall present an opinion of the expert herpetologist on the correctness of design solutions for each of the reservoirs in terms of ecological requirements for the protected species of amphibians.</p>	Employer (before and/or during <i>Task implementation period</i> ) Contractor (during <i>Task implementation period</i> )
<b>N. REQUIREMENTS CONCERNING POLLUTION PREVENTION</b>				
53.	Protection of water and soil, protection of human health and safety, protection of biotic nature	<i>Task implementation area</i>	<p><b><i>Using construction materials meeting the requirements of the provisions and standards, and which are harmless for environment</i></b></p> <p>The construction materials used for the Task implementation should be harmless for environment (natural, environmentally friendly or neutral).</p> <p>Consumables, raw materials, fuels, fertilizers, and concrete mixtures used during the <i>Task implementation period</i> should have appropriate certificates and be approved for use.</p> <p>Earth structures should be made of natural materials. Materials that are hazardous or harmful for health must not be used.</p> <p>One shall construct/expand the embankments using mineral or, possibly, geosynthetic materials, but those materials must not be the sources of emission of harmful substances to the soil-aquatic environment.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
54.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Technical efficiency and inspections of vehicles, machinery and devices</b></p> <p>To prevent against water and soil pollution only vehicles, machinery and devices that are technically efficient can be used.</p> <p>The Contractor is obliged to carry out maintenance of the vehicles, machinery and devices and to prevent possible contamination of the water and soil with all available organizational measures, paying special attention to prevent from fuel, oil and oil derivatives spilling both during maintenance, filling the tanks, transport and operation of the vehicles, machinery and devices.</p>	Contractor
55.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Conditions for the location of building materials storage and production sites</b></p> <p>Building materials, particularly bulk materials, should be stored only on paved surfaces within the construction site facilities.</p> <p>Such materials cannot be stored at a distance smaller than 100 m from the existing riverbeds.</p> <p>Analogical conditions relate to the locations of building materials production (concrete masses, pre-fabricated materials, aggregates etc.).</p>	Contractor
56.	Protection of water	<i>Task implementation area</i>	<p><b>Limiting the time and amount of drainage and ban on discharge of the water from excavation ditches directly to the watercourses</b></p> <p>The drainage time should be limited to maximum and methods reducing the amount of the pumped out water alongside with its protection against contamination should be applied.</p> <p>The water pumped out of the excavation ditches must not be discharged to the watercourses due to a high amount of the suspended matter.</p> <p>The water can be discharged to the watercourses only upon its treatment and removal of the suspended matter, e.g. in a settling tank.</p>	Contractor
57.	Protection of biotic nature, protection of water	<i>Task implementation area</i>	<p><b>Prohibition on interference in watercourses riverbeds and banks not covered by the works</b></p> <p>During the <i>Task implementation period</i> the riverbeds and banks of watercourses not covered by the works must not be interfered with (e.g. prohibition on traffic of vehicles, machinery and devices, prohibition on pollution, devastation and storage of materials, etc.).</p>	Contractor
58.	Protection of biotic nature, protection of the earth surface	<i>Task implementation area</i>	<p><b>Conditions for traffic of vehicles, machinery and devices within the Task implementation area</b></p> <p>The traffic of vehicles, machinery and devices can be maintained only in the following areas:</p> <ol style="list-style-type: none"> <li>within the site facilities;</li> <li>on existing roads;</li> <li>on access roads and yards;</li> <li>on internal roads (after their completion).</li> </ol>	Contractor

Item	Issue	Place	Mitigation measure	Entity
59.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>Parking lot for the machines and vehicles after the completion of works</i></b></p> <p>At the end of the workday, and especially on holidays, the machines and vehicles must be parked in designated areas in the site facilities.</p>	Contractor
60.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>Pavement sealing in the location of vehicle, machinery and devices traffic at the site facilities</i></b></p> <p>The pavement of the site facilities areas at which vehicles, machinery and devices will move should be sealed.</p>	Contractor
61.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>Ban on the service and repairs of vehicles, machinery and devices outside the site facilities</i></b></p> <p>The service of vehicles, machinery and devices (<i>i.a.</i> replacement of oils and liquids) can be performed only in the designated locations within the site facilities which meet the conditions set out in item 62.</p>	Contractor
62.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>Indicating and sealing the sites of stationing and maintenance of vehicles, machinery and devices</i></b></p> <p>The sites to be used for maintenance of vehicles, machinery and devices (including stationing, filling with fuel, technical maintenance, etc.) should be appropriately indicated and designated within the site facilities.</p> <p>Until completion of the works these sites should be spread with impermeable insulating materials that would prevent the ground against contamination with liquid or solid substances.</p> <p>While discussing the location of these sites it must be remembered to maintain a safe distance from still and flowing waters basins.</p> <p>The detailed location must be discussed with environmental experts team referred to in item 98 (including the expert phytosociologist).</p>	Contractor
63.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>Ensuring water drainage from parking sites and access roads into drainage systems</i></b></p> <p>Parking sites for equipment and access roads shall be made with a slope to ensure stormwater, meltwater, and waste-water drainage into drainage systems in a manner that prevents any contaminants from penetrating the soil or mixing with surface waters.</p>	Contractor
64.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>A station with a sorbent near the service and parking sites for vehicles, machinery and devices.</i></b></p> <p>A station with a sorbent used to eliminate any leaks and spillages of petroleum derivatives should be located near service sites for vehicles, machinery and devices (including parking, filling and technical service sites, etc.).</p>	Contractor
65.	Protection of water and soil	<i>Task implementation area</i>	<p><b><i>Rules for filling the tanks of vehicles, machinery and devices</i></b></p> <p>Fuel tanks should be filled using mobile or fixed fuel distribution stations equipped with appropriate security systems like a post with sorbent used for removing spilling and leaks of oil derivatives to the ground.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
66.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Principles of washing and cleaning vehicles, machinery and devices</b></p> <p>Servicing operations of vehicles, machinery and devices used in the <i>Task implementation area</i> (including, among others, cleaning the equipment used for concreting works) are permissible only in designated locations within the area of site facilities, adequately protected against the risk of contamination of subsoil and water as well as provided with equipment enabling immediate removal of possible contamination.</p>	Contractor
67.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Prevention of leaks from vehicles, machinery and devices</b></p> <p>Throughout the <i>Task implementation period</i>, the technical state of vehicles, machinery and devices in operation shall be checked regularly to eliminate leaks of carbohydrate petroleum derivatives into the soil and waters.</p>	Contractor
68.	Protection of water and soil	<i>Task implementation area</i>	<p><b>How to proceed in the event of petroleum derivative emission</b></p> <p>In the event of any petroleum derivative emission into the environment (including into soil and water), one shall:</p> <ul style="list-style-type: none"> <li>a) immediately take actions to prevent pollution dissemination, using available means (e.g. sorbents);</li> <li>b) Immediately remove the soil contaminated due to the breakdown as per applicable regulations.</li> <li>c) in the event of major breakdowns, apply procedures described in item 90.</li> </ul>	Contractor
69.	Protection of acoustic climate	<i>Task implementation area</i>	<p><b>Restriction on works to daytime</b></p> <p>Work should be planned so that it lasted as short as possible and be performed only in the daytime (between 6 a.m. and 10 p.m.).</p>	Contractor
70.	Protection of acoustic climate	<i>Task implementation area</i>	<p><b>Restriction on noise emitted by vehicles, machinery and devices</b></p> <p>Works shall only be carried out using vehicles, machinery and devices in working order and with noise emission levels (acoustic power) consistent with applicable regulations.</p> <p>Defective vehicles, machinery and devices which might result in increased noise levels in the surroundings shall not be used for the works.</p>	Contractor
71.	Protection of acoustic climate	<i>Task implementation area</i>	<p><b>Restriction on noise emitted by pump aggregates</b></p> <p>In the event that the works are carried out in the acoustically protected areas or in their proximity, in order to restrict noise nuisance for the residents, one shall only use pump aggregates equipped with effective sound dampening cases, ensuring reduction in noise emission to levels consistent with applicable regulations and standards.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
72.	Protection of acoustic climate	<i>Task implementation area</i>	<p><b>Noise level control in acoustically protected areas</b></p> <p>In the event that the works are executed in acoustically protected areas or in their proximity, one shall control the noise level on a running basis and, as necessary, apply appropriate technical and organizational measures ensuring reduction in noise emission to the levels consistent with applicable provisions and standards.</p>	Contractor
73.	Protection of air, protection of acoustic climate	<i>Task implementation area</i>	<p><b>Restriction on power consumption of vehicles, machinery and devices</b></p> <p>Use low power consumption vehicles, machinery and devices; switch off the power supply when they are not in use.</p> <p>Engine running time of vehicles, machinery and devices shall be reduced to the necessary minimum.</p>	Contractor
74.	Protection of air	<i>Task implementation area</i>	<p><b>Restriction on air pollution with exhaust fumes</b></p> <p>In order to reduce negative impact on the condition of the air:</p> <ul style="list-style-type: none"> <li>a) only use vehicles, machinery and devices that are in working order and have valid certificates in order to reduce the emission of gaseous substances and dusts into the atmosphere;</li> <li>b) provide a place for safe manoeuvring of vehicles in the form of yards;</li> <li>c) one shall reduce the traffic of vehicles, machinery, and devices to the necessary minimum, as well as limit the speed of vehicle traffic on the construction site;</li> <li>d) one shall limit the engine idling time to the necessary minimum and observe the principle of turning off the machines and devices during breaks;</li> <li>e) turn off engines vehicles are stopped.</li> </ul>	Contractor
75.	Protection of air	<i>Task implementation area</i>	<p><b>Limiting dust contamination from the construction site and roads</b></p> <p>During the course of the construction works, limit the consequences of secondary dust contamination by observing high standards of work and in particular by:</p> <ul style="list-style-type: none"> <li>a) systematic clearance of the construction site;</li> <li>b) application of the necessary technical and organizational measures limiting dust emission on the construction site and on the roads;</li> <li>c) sprinkling dusty road surfaces;</li> <li>d) using airtight tarpaulin on vehicles carrying materials that may cause dusting during transport;</li> <li>e) cleaning vehicle wheels before entering access roads to the <i>Task implementation area</i>;</li> <li>f) removal of contamination using machinery (special purpose vehicles).</li> </ul>	Contractor



Item	Issue	Place	Mitigation measure	Entity
76.	Protection of human health and safety, protection of air	<i>Task implementation area</i> together with access roads	<p><b>Maintenance of cleanliness on roads</b></p> <p>In order to maintain cleanliness and prevent dust emission on roads the following actions shall be taken up:</p> <ul style="list-style-type: none"> <li>a) the Contractor shall use all available technical means and work organization in order to maximally reduce dust emission and contamination of access roads to the <i>Task implementation area</i>.</li> <li>b) the contractor shall install the stands in the places of departure of heavy equipment from the construction site, where soil or mud will be preliminary removed from the wheels of vehicles.</li> <li>c) the Contractor is obliged to immediately and regularly remove any contamination from roads which occurs as a result of movement of vehicles, machinery and devices associated with the implementation of the Task.</li> </ul>	Contractor
77.	Protection of air	<i>Task implementation area</i>	<p><b>Ban on use bonfires and combustion of materials, waste, rubbish etc.</b></p> <p>In the <i>Task implementation area</i> it is not allowed to use bonfires and combust materials, waste, rubbish etc.</p>	Contractor
<b>O. REQUIREMENTS CONCERNING WASTE MANAGEMENT</b>				
78.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Preparing a Waste Management Plan (WMP)</b></p> <p>Prior to the commencement of the works, the Contractor shall prepare and submit to the Engineer for approval the <i>Waste Management Plan</i>, which specifies how to deal with waste expected to be generated during the works, and includes, <i>i.a.</i>, the waste management conditions contained in the EMP.</p> <p>[see also item 10]</p>	Contractor
79.	Protection of water and soil, protection of air	<i>Task implementation area</i>	<p><b>Principles of waste management</b></p> <p>Wastes generated during the implementation of the Task shall be:</p> <ul style="list-style-type: none"> <li>a) segregated and selectively stored in airtight containers or in designated and suitable locations in conditions that prevent dust emission and prevent the wind picking up light fractions resulting in a negative environmental impact;</li> <li>b) regular waste collection shall also be ensured by entities authorized to manage the waste further.</li> </ul>	Contractor
80.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Principles of hazardous waste management</b></p> <p>Hazardous waste shall be segregated and stored separately in designated airtight containers set on hardened ground, secured against unauthorized access until handed over to entities authorized to manage such waste further.</p>	Contractor
81.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Principles of domestic waste-water management</b></p> <p>Domestic waste-water shall be retained at the site facilities in airtight holding tanks, the content of which shall be handed over to entities with appropriate permits to remove it.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
82.	Protection of water and soil	<i>Task implementation area</i>	<p><b>Prevention of creation of illegal landfill sites</b></p> <p>Prior to the commencement of the works, the Contractor shall carry out reconnaissance of the <i>Task implementation area</i> to identify illegal landfill sites. During the implementation of the task, the Contractor shall prevent the emergence of possible dumping sites in the <i>Task implementation area</i>.</p>	Contractor
<b>P. REQUIREMENTS CONCERNING PROTECTION OF HUMAN LIFE AND HEALTH</b>				
83.	Protection of human health and safety	<i>Task implementation area</i>	<p><b>Preparing documents related to safety in the Task implementation area</b></p> <p>In the <i>Task implementation area</i>, one shall maintain order and ensure proper work organization.</p> <p>Prior to the commencement of the works, the Contractor shall prepare and obtain approval from the Engineer of the following documents related to safety at the construction site:</p> <ul style="list-style-type: none"> <li>a) <i>Safety and health protection plan (the SHP plan)</i>;</li> <li>b) <i>Construction site organization design</i>.</li> </ul>	Contractor
84.	Protection of human health and safety	<i>Task implementation area</i>	<p><b>Reconnaissance and supervision of explosive ordnance disposal unit in the Task implementation area</b></p> <p>In order to minimize the risk related to the possibility of presence of hazardous military objects in the <i>Task implementation area</i>, the Contractor shall provide:</p> <ul style="list-style-type: none"> <li>a) prior to the commencement of the works – reconnaissance of the <i>Task implementation area</i> to detect unexploded explosive ordnance (a report containing the results of the abovementioned unexploded explosive ordnance reconnaissance shall be submitted to the Engineer for approval);</li> <li>b) during the performance of the works – supervision of explosive ordnance disposal unit over the works (carried out by the explosive ordnance disposal team referred to in item 100) involving examination and clearance in the <i>Task implementation area</i> of hazardous military objects followed by their disposal;</li> <li>c) in the event that hazardous military objects are found in the <i>Task implementation area</i> – implementation of the procedures described in item 91.</li> </ul>	Contractor
85.	Protection of human health and safety, protection of material goods	<i>Task implementation area and its vicinity</i>	<p><b>Documentation and monitoring of the technical condition of the buildings exposed to the impact of vibrations</b></p> <p>Prior to the commencement of the works during which there may occur vibrations that are hazardous to the neighboring residents as well as the neighboring properties and infrastructural facilities, the Contractor shall take inventory of the existing buildings and facilities, having particular regard to cracks and damage.</p> <p>During the performance of the works listed above, the Contractor shall monitor the condition of the buildings and facilities on an ongoing basis.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
86.	Protection of human health and safety	<i>Task implementation area</i>	<p><b>Implementation of guidelines on occupational health and safety requirements</b></p> <p>The Contractor shall ensure implementation of detailed guidelines on occupational health and safety requirements, <i>i.a.</i> in terms of:</p> <ul style="list-style-type: none"> <li>a) construction site development, including danger zones;</li> <li>b) storage and transport;</li> <li>c) electric power devices and systems;</li> <li>d) technical machinery and devices;</li> <li>e) works at heights;</li> <li>f) earth works;</li> <li>g) selected renovation and demolition works,</li> </ul> <p>contained in applicable regulations and presented in the study by <i>Chief Labour Inspectorate</i> as appendix to contract <i>Bidding Documents</i> (Part 2, Section VII – <i>Requirements for Works</i>).</p>	Contractor
87.	Protection of human health and safety	<i>Task implementation area</i>	<p><b>Ensuring hygienic conditions</b></p> <p>In the <i>Task implementation area</i>, one shall ensure a necessary number of portable toilets and ensure that the staff are able to use them, as well as provide all the staff with training on maintaining proper hygienic conditions at the construction site and its immediate vicinity.</p>	Contractor
88.	Protection of human health and safety	<i>Task implementation area and its vicinity</i>	<p><b>Principles of prevention of such diseases as HIV-AIDS</b></p> <p>By the agency of an approved service supplier, the Contractor shall implement an awareness raising programme on spreading such diseases as HIV-AIDS (the Contractor shall also carry out appropriate trainings) and shall take all other measures to lower the risk of transmitting HIV among the Contractor’s personnel and among the local community. Those activities shall be performed in accordance with the detailed conditions set out in the Contract <i>Bidding Documents</i> (Part 3, Section VIII – <i>General Terms, clause 6.7</i>).</p>	Contractor
<b>R. REQUIREMENTS CONCERNING EXTRAORDINARY THREATS TO THE ENVIRONMENT</b>				
89.	Protection of human health and safety	<i>Task implementation area</i>	<p><b>Principles of flood risk management</b></p> <p>With regard to flood risk, the Contractor shall prepare and submit to the Engineer for approval the document entitled <i>Construction Site Flood Protection Plan</i> that incorporates local hydrological and meteorological conditions in the vicinity of the construction site.</p> <p>If flooding occurs, the Contractor shall proceed in accordance with the procedures described in the abovementioned document.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
90.	Protection of human health and safety	<i>Task implementation area and its vicinity</i>	<p><b>Principles of crisis notification</b></p> <p>In the event of a crisis (other than a flooding), an accident, a major breakdown, etc., the Contractor is obliged to take the following actions:</p> <ul style="list-style-type: none"> <li>a) immediately notify appropriate emergency services (fire brigade, ambulance, the police, etc.);</li> <li>b) by the time appropriate emergency services arrive, carry out necessary activities to lower the risk of loss to personnel, property, and the environment (agreed with appropriate services as far as possible);</li> <li>c) notify the Engineer and the Employer;</li> <li>d) after arrival of appropriate emergency services, strictly follow their recommendations and instructions.</li> </ul> <p>[see also the condition in item 68]</p>	Contractor
91.	Protection of human health and safety	<i>Task implementation area</i>	<p><b>Procedures for unexploded explosive ordnance management</b></p> <p>In the event that unexploded explosive ordnance is found, one shall:</p> <ul style="list-style-type: none"> <li>a) immediately stop the works;</li> <li>b) evacuate the area around the finds;</li> <li>c) immediately notify an explosive ordnance disposal unit [see items 84 and 100] and the police, and follow their recommendations;</li> <li>d) notify the Engineer and the Employer;</li> </ul> <p>It is strictly forbidden to lift, dig up, bury, transfer, or throw unexploded explosive ordnance into fire, water, etc.</p>	Contractor
<b>S. REQUIREMENTS CONCERNING PROTECTION OF CULTURAL MONUMENTS</b>				
92.	Protection of cultural monuments	<i>Task implementation area and its vicinity</i>	<p><b>Obtaining an opinion from a heritage conservator</b></p> <p>Prior to the commencement of the works, the Contractor shall obtain a relevant heritage conservator’s opinion on the terms and conditions of the planned works implementation with regard to the applicable principles of historic monuments and archaeological sites protection,</p> <p>The Contractor shall be obliged to observe the provisions deriving from the said opinion.</p> <p>[see also the condition in item 11]</p>	Contractor
93.	Protection of cultural monuments	<i>Task implementation area</i>	<p><b>Provision of archaeological supervision</b></p> <p>Earthworks shall be performed under regular archaeological supervision. To this end, the Contractor shall:</p> <ul style="list-style-type: none"> <li>a) prepare an appropriate action plan in this regard as part of <i>Quality Assurance Plan</i>;</li> <li>b) ensure participation of expert archaeologists referred to in item 99) to carry out regular supervision over the earthworks;</li> <li>c) if necessary, obtain the legally required <i>Permit for Archaeological Examination from the Heritage Conservator of the Lower Silesian Province</i>.</li> </ul>	Contractor

Item	Issue	Place	Mitigation measure	Entity
94.	Protection of cultural monuments	<i>Task implementation area</i>	<p><b><i>How to proceed if movable monuments or archaeological sites are found</i></b></p> <p>If, during the works, an object is found for which it is reasonable to suppose or be certain that it may be a monument or have a historical value, the Contractor is obliged to:</p> <ul style="list-style-type: none"> <li>a) immediately stop all the works which may damage and destroy the find;</li> <li>b) secure (using available means) the find and the site where it was found against destruction, damage, or theft;</li> <li>c) immediately notify the expert archaeologists (referred to in items 93 and 99) and the Engineer;</li> <li>d) take further protective actions, agreed with the expert archaeologists and the Engineer;</li> <li>e) facilitate and ensure that documentation activities, archaeological research, and other necessary activities can be carried out by the expert archaeologists and/or administrative bodies in charge of securing historical items;</li> <li>f) once the activities and research listed in clauses d) and e) are completed, the discovered movable monuments shall be passed to appropriate institutions indicated by the expert archaeologists and/or administrative bodies in charge of securing historical items (in accordance with applicable regulations and the content of the <i>Permit</i> referred to in item 93 clause c);</li> <li>g) in the case of immovable monuments, after the completion of the activities and research listed in clauses d) and e), one shall proceed in accordance with the guidelines set out for further management of the discovered historical items, agreed with the expert archaeologists and/or administrative bodies in charge of securing the historical items (in accordance with applicable regulations and the content of the <i>Permit</i> referred to in item 93 clause c).</li> </ul>	Contractor
<b>T. REQUIREMENTS CONCERNING VERIFICATION OF THE GEODETIC DIVISION APPLIED IN THE EMP</b>				
95.	Protection of biotic nature, protection of water	<i>Task implementation area</i>	<p><b><i>Verification of the geodetic division applied in the EMP</i></b></p> <p>Any reference to the record plots numbering provided in this appendix to the EMP refers to the geodetic division as of 2014-2015.</p> <p>Before commencing the implementation of the conditions referring to the areas described in the EMP using the record plots numbers (see item 27), one shall:</p> <ul style="list-style-type: none"> <li>a) identify the current location of the boundaries of the abovementioned areas with reference to the current geodetic division (and the current plot numbering) contained in the current investment project implementation permit issued for the Task;</li> <li>b) submit the information on the results of the abovementioned arrangements to the Engineer for approval.</li> </ul>	Contractor

Item	Issue	Place	Mitigation measure	Entity
<b>U. REQUIREMENTS CONCERNING CONTRACTOR'S STAFF INVOLVED IN EMP IMPLEMENTATION</b>				
96.	Implementa- tion and reporting of EMP	<i>Task implementation area</i>	<p><b>Training of Contractor's staff as regards of EMP implementation</b></p> <p>The Contractor is obliged to provide training to its management, engineers and technicians on the principles and manners of implementation of conditions of the EMP that – consistent with Appendix 1 and 2 to the EMP – are assigned to the Contractor. At the end of those trainings, tests should be carried out to check participants' knowledge.</p> <p>In monthly reports submitted to the Engineer, the Contractor shall provide information on its personnel's training level in the scope of EMP provisions in the current reporting period.</p>	Contractor
97.	Implementa- tion and reporting of EMP	<i>Task implementation area</i>	<p><b>Appointment of EMP coordinator in the Contractor's staff</b></p> <p>A person in charge of co-ordination and supervision of activities related to EMP implementation shall be appointed in the Contractor's staff.</p> <p>This person shall be responsible, among others, for:</p> <ul style="list-style-type: none"> <li>a) supervision over implementation of individual EMP conditions during various stages of Task implementation;</li> <li>b) regular monitoring of the implementation of individual conditions contained in Appendix 1 and 2 to the EMP in the <i>Task implementation area</i>;</li> <li>c) regular informing the Contractor's team management about duties stemming from the EMP at a given stage of works, as well as about any problems occurring in the scope of EMP implementation;</li> <li>d) collaboration with Contractor's remaining team members (including the team of environmental experts, team of archaeological experts and explosive ordnance disposal team, referred to in items 98, 99 and 100) in the scope of ensuring EMP implementation;</li> <li>e) reporting on EMP implementation (consistent with the principles given in item 102);</li> <li>f) collaboration with persons in charge of EMP implementation in the Engineer's team and the Contractor's team.</li> </ul> <p>The person appointed to perform the abovementioned functions is subject to Engineer's approval.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
98.	Implementa- tion and reporting of EMP	<i>Task implementation area</i>	<p><b>Ensuring a team of environmental experts</b></p> <p>Throughout the <i>Task implementation period</i>, the Contractor shall ensure participation of a team of environmental experts, consisting of representatives of the following areas of specializations:</p> <ul style="list-style-type: none"> <li>a) botanist-phytosociologist (natural habitats and protected plant species);</li> <li>b) dendrologist (principles of maintenance and protection of trees);</li> <li>c) zoologist – expert on invertebrates (protected invertebrate species [especially butterflies and beetles], macrozoobenthos);</li> <li>d) zoologist-ichthyologist (fishes);</li> <li>e) zoologist-herpetologist (amphibians and reptiles);</li> <li>f) zoologist-ornithologist (birds);</li> <li>g) zoologist-chiropterologist (bats);</li> <li>h) zoologist-teriologist (land mammals).</li> </ul> <p>Those experts shall be involved in performing chosen mitigation and monitoring measures specified in the EMP, in particular:</p> <ul style="list-style-type: none"> <li>– mitigation measures listed in Appendix 1 to EMP in items: 4, 6, 7, 11, 12, 13, 14, 15, 16, 19, 20, 23, 24, 25, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 62, 98.</li> </ul> <p>The composition of the environment expert board is subject to Engineer’s approval.</p> <p>One member of the environment expert board is entitled to represent at most two natural science areas of specializations listed above in clauses a–h.</p> <p>Involvement of the abovementioned experts in other undertakings of the OVFMP project or in any other undertakings shall not restrict their availability for the benefit of this Task.</p> <p>Prior to the commencement of the works, the contractor shall submit to the Engineer for approval of the <i>Quality Assurance Plan</i> in the scope of the environment expert board’s activities.</p>	Contractor
99.	Implementa- tion and reporting of EMP	<i>Task implementation area</i>	<p><b>Ensuring a team of archaeological experts</b></p> <p>Throughout the <i>Task implementation period</i>, the Contractor shall ensure participation of a team of archaeological experts.</p> <p>Those experts shall be involved in performing chosen mitigation measures specified in the EMP (in particular as regards the activities listed in items 11, 92, 93 and 94 in Appendix 1 to the EMP).</p> <p>Dependent upon actual needs, the team of expert archaeologists may consist of one or more persons having appropriate industry qualifications. The composition of the team of expert archaeologists is subject to the Engineer’s approval. Involvement of the abovementioned experts in other undertakings of the OVFMP project or in any other undertakings shall not restrict their availability for the benefit of this Task.</p> <p>Prior to the commencement of the works, the contractor shall submit to the Engineer for approval of the <i>Quality Assurance Plan</i> in the scope of the team of expert archaeologists’ activities.</p>	Contractor

Item	Issue	Place	Mitigation measure	Entity
100.	Implementation and reporting of EMP	<i>Task implementation area</i>	<p><b>Ensuring an explosive ordnance disposal team</b></p> <p>Throughout the <i>Task implementation period</i>, the Contractor shall ensure participation of an explosive ordnance disposal team.</p> <p>Those experts shall be involved in performing chosen mitigation measures specified in the EMP (in particular as regards the activities listed in item 84 in Appendix 1 to the EMP).</p> <p>Dependent upon actual needs, the explosive ordnance disposal team may consist of one or more persons having appropriate industry qualifications. The composition of the explosive ordnance disposal team is subject to the Engineer’s approval. Involvement of the abovementioned experts in other undertakings of the OVFMP project or in any other undertakings shall not restrict their availability for the benefit of this task.</p> <p>Prior to the commencement of the works, the contractor shall submit to the Engineer for approval of the <i>Quality Assurance Plan</i> in the scope of the explosive ordnance disposal team’s activities</p>	Contractor
101.	Implementation and reporting of EMP	<i>Task implementation area</i>	<p><b>EMP implementation discussion during working meetings and Site Meetings</b></p> <p>During the <i>Task implementation period</i>, monthly meetings of PIU representatives, the Engineer and the Contractor shall take place, which will be dedicated to discussion and control of the implementation of the mitigation and monitoring measures specified in the EMP.</p> <p>Irrespective of the foregoing, current requirements and problems related to EMP implementation shall be discussed during all Site Meetings.</p>	Contractor
<b>V. REQUIREMENTS CONCERNING REPORTING OF EMP IMPLEMENTATION</b>				
102.	Implementation and reporting of EMP	<i>Task implementation area</i>	<p><b>Monthly reports on progress in EMP implementation</b></p> <p>During the <i>Task implementation period</i>, the Contractor shall submit to the Engineer monthly reports on the implementation of the conditions specified in the EMP (in a form of a checklist along with the necessary appendices, including the reports on the implementation of the environmental supervision).</p> <p>The template of the abovementioned report (checklist) shall be prepared by the Contractor and submitted to the Engineer for approval.</p> <p>Depending on circumstances, the Engineer may demand from the Contractor additional reports on, <i>i.a.</i>, actual crisis situations, implementation of chosen EMP items, etc.</p>	Contractor