



# CHECKLIST FOR IMPLEMENTATION OF THE MEASURES SPECIFIED IN APPENDIX 1 AND 2 OF THE ENVIRONMENTAL MANAGEMENT PLAN

### Appendix no. 1

to the Final report on the implementation of the measures specified in the EMP for the period of: 1.11.2020 - 31.03.2022

### Odra-Vistula Flood Management Project

OVFMP Subcomponent	3D Passive and active protection in San basin
Contract Task	3D.2/1 - Construction of the right embankment of the Biała River in the City of Tarnów.
Investor / Project Implementation Unit	The State Water Holding Polish Waters  Regional Water Management Authority in Cracow  22. Marszałka J. Piłsudskiego St., 31-109 Cracow, Poland
Project Implementation Office (PIO)	Project Implementation Office in Cracow  22. Marszałka J. Piłsudskiego St., 31-109 Cracow, Poland
Works Contractor	KELLER POLSKA Sp. z o.o. 172. Poznańska St., 05-850 Ożarów Mazowiecki, Poland
Engineer	AECOM Polska Sp. z o.o. Project Office: 1. Pokoju Alley, 31-548 Cracow, Poland







This document – forming **Appendix no. 1** to the *Monthly Report no. 1 on the implementation of the measures specified in the Environmental Management Plan for Contract 3D.2/1* (reporting period: November 1, 2020 – March 31, 2022), elaborated by the Engineer/Consultant – consists of the following 3 parts:

- Part I. Checklist for implementation of mitigation measures listed in Appendix 1 to the EMP for contract 3D.2/1
- Part II. Checklist for implementation of monitoring measures listed in Appendix 1 to the EMP for contract 3D.2.1.
- Part III. Quantitative list of implementation of measures listed in Appendix 1 and 2 to the EMP, within the reporting period.

### Part I. Checklist for implementation of mitigation measures listed in Appendix 1 to the EMP for Contract 3D,2/1

#### Explanations for the checklist presented in Part I

The measures listed in Appendix 1 to the EMP for Contract 3D.2/1 are grouped in 20 thematic categories (marked with letters A.-T. and described on the checklists with *italicised CAPITAL LETTERS*):

Cat.	Category Name	Item on the list
A.	Requirements on schedule of works	items no. 1-3
В.	Requirements on road access to the Contract execution area	items no. 4-13
C.	Requirements on locations of site facilities and technological roads and yards	items no. 14-22
D.	Requirements on the quality and management of soils	items no. 23-24
E.	Requirements for works in the embanked area and in channels	items no. 25-26
F.	Requirements on proceeding with topsoil/mineral soil	items no. 27-32
G.	Requirements on removing (felling) trees and shrubs	items no. 33-34
Н.	Requirements on protecting trees and shrubs not intended for removal (felling)	items no. 35-42
I.	Requirements on securing protected natural resources	items no. 43-56
J.	Requirements on recreation of the site after the completion of construction works	items no. 57-59
K.	Requirements on the prevention of the environmental pollution	items no. 60-83
L.	Requirements on waste management	items no. 84-88
M.	Requirements on health and safety protection	items no. 89-95
N.	Requirements on extraordinary threats to the environment	items no. 96-98
О.	Requirements on conservation of historic monuments	items no. 99-100
P.	Requirements on the Contractor's staff engaged in the implementation of the EMP	items no. 101-106
Q.	Requirements on reporting on the implementation of the EMP	item no. 107
R.	Requirements after completion of works	items no. 108-110
S.	Remaining ESHS requirements	items no. 111-120
T.	Requirements for removal and demolition of garden allotments	items no. 121-124

The numbers in the column "Item on the list" – from 1) to 124) – stand for the numbers of relevant mitigation measures, according to the numbering in Appendix 1 of the EMP.

The following is given for each of mitigation measures:

- description of the measure
   (marked with *bold and italicised font* together with number in the column "Item");
- literal content of the measure in the wording of Appendix 1 of the EMP.
- description of the implementation status of the measure in the reporting period.

Table 1. Checklist for implementation of mitigation measures listed in Appendix 1 to the EMP for Contract 3D.2/1

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
(1)	(2)	(3)
1	<ul> <li>EMP conditions concerning the schedule of conducting the works</li> <li>When setting work schedules and at the stage of their implementation, the EMP conditions regarding the dates and time of conducting various types of works should be taken into account, described in detail in the consecutive items of the table, including, in particular:</li> <li>a) acceptable hours of conducting the works (see item 75);</li> <li>b) acceptable dates for removing (felling) trees and shrubs (see item 33);</li> <li>c) dates of environmental inspection before removal (felling) of trees (see item 34);</li> <li>d) optimum date for conducting works within the root volumes of trees and shrubs (see item 39);</li> <li>e) dates of inspections related to ensuring the protection of small animals on the site (see items 46 and 47);</li> <li>f) dates of inspection for the Contract execution area by the team of environmental experts (see item 52);</li> <li>g) agreeing deadlines for carrying out land reclamation works (see item 57);</li> <li>h) deadlines for reporting the implementation of the EMP (see item 107).</li> </ul>	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
2	EMP conditions concerning the activities to be carried out before or at the initial stage of works When setting work schedules and at the stage of their implementation, the EMP conditions should be taken into account regarding activities to be carried out before or at the initial stage of works, described in detail in the following items of the table, including:  a) conditions for building and equipping the construction site facilities, technological roads and yards (see items 14 - 17, 62, 65 - 70, 85 - 87, 93; b) conditions for the road access to the construction site (see items 4 - 13, 110); c) the condition for removing and securing the layer of topsoil/mineral soil (see items 27 - 32); d) the condition for securing trees and shrubs not intended to be removed (cut down) (see items 35); e) conditions for the performance of environmental inventories (see items 43, 44, 51); f) the condition for securing the construction site against the entry of small animals (see item 46); g) the condition for obtaining decisions authorising exceptions to the principles of species protection of plants, fungi and animals (see items 53, 54); h) conditions for the development of selected documents (see items 53, 54, 84, 89, 96, 107); i) conditions for documentation of technical condition of buildings and infrastructure facilities (see item 11, 91); j) the condition for explosive ordnance survey of the site (see item 11, 91); j) the condition for obtaining the Engineer's approval for the appointed person to be EMP coordinator and the composition of the team of environmental experts, the team of archaeological experts and the team of sappers (see items 102 - 105). n) the condition for training on the guidelines of the EMP implementation (see item 101).	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020. Problems occurred with the implementation of the measure. Delays occurred in 4th quarter of 2020 (the first quarter of Contract execution) in the submission to the Engineer of the contractual documentation required at the stage before the commencement of works and resulting from the requirements of the EMP. At the end of the 4th quarter of 2020, the Contractor had supplemented all the required documents, which were approved by the Engineer.
3	Synchronising the works with construction of the left embankment of the Biała River The project's execution should be synchronised in time with the construction of the left flood embankment of the Biała River at chainage about km 6+680 to 7+700 in order to avoid increasing the flood hazard for the Koszyckie Estate in Tarnów (by building the respective embankment). The Investor will order to prepare the documentation.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
4	Conditions of use of access roads to the Contract execution area  The Contractor will ensure the proper marking of all access roads to the Contract execution area, in accordance with applicable law and arrangements with relevant Road Managers. These markings will be regularly inspected, and in the event of their destruction or theft, the Contractor will immediately take action to restore or supplement them.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
5	Conditions of use of access roads to the Contract execution area  The Contractor will ensure the protection of people against increased vehicular traffic on roads used during the construction works.  In the Contract implementation period, the Contractor will provide, install and operate all temporary safety devices (e.g. traffic lights, information boards, safety barriers), thus ensuring the safety of vehicles and pedestrians.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
6	Conditions of use of access roads to the Contract execution area  Delivery routes for the construction equipment and for the means transporting building material to the Contract area should be set out within the existing network of traffic routes and limited to the necessary minimum.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
7	Conditions of use of access roads to the Contract execution area  If development of additional access roads (technical lanes) to the project construction site would be necessary, a temporary course shall be arranged within their routes — using reinforced-concrete slabs having a width of up to 3.0 m, and those should be removed after the completion.  A road shall be set out as a shortest possible section, beyond the areas of high environmental values.  Temporary access roads / technical lanes shall be set out to avoid felling of trees or shrubs.  The planned location of access roads should be agreed with the team of environmental experts (including e.g. phytosociologist) and presented for the Engineer's approval along with the abovementioned establishments.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
8	Conditions of use of access roads to the Contract execution area  Hardened surfaces (e.g. technological and access roads) and related facilities applied for their proper application, used by the cars transporting building materials and aggregate, should be kept in a proper technical condition.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
9	Conditions of use of access roads to the Contract execution area  The Contractor shall comply with statutory restrictions for the axle load for the transport of materials and equipment to and from the Contract execution area. The Contractor shall obtain all necessary permits for the transport of atypical loads and continuously notify the Engineer of any such carriage.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
10	Conditions of use of access roads to the Contract execution area  The Contractor will be liable for any damage to civil structures and buildings, roads, drainage ditches, culverts, water and gas pipelines, power poles and lines, cables, geodetic control points and installations of any kind, and other types of objects such as vertical and horizontal markings, navigation markings, information boards, cultural heritage structure, etc., caused by him or his subcontractors, service providers and suppliers during the implementation of the Contract. The Contractor is also responsible for restoring the flow capacity of ditches and drainage installations in the area of the works being carried out and the transport routes being used in the event of damage caused by the performance of works and by the transport related to the works.  The Contractor shall immediately repair, at its own expense, all damages arisen and – when necessary – shall carry out other works ordered by the Engineer.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
11	<ul> <li>Conditions of use of access roads to the Contract execution area</li> <li>a) The Contractor is obliged to prepare photographic documentation of the entire Contract execution area and access roads, with particular reference to the technical condition of roads and buildings located in the vicinity of the roads for transporting building materials. The completed documentation should be described with the place and the date of development thereof.</li> <li>b) prior to the works, the Contractor shall carry out the site inspections in the presence of Road managers, which shall be followed by protocols on the condition of access roads to the Contract execution area. Based on the protocols, the Contractor will be obliged to restore the technical condition of the roads.</li> </ul>	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020.  No need to undertake measures was determined over the next quarters.
12	restore the technical condition of the roads.  Conditions of use of access roads to the Contract execution area  a) The Contractor is obliged to agree with Road managers the traffic management plan and works protection plan. The Contractor is obliged to carry out the traffic management according to agreed designs (marking and securing of the Contract execution area, marking of detours and recommended marking of roads, related to the change in traffic management, etc.). b) prior to the commencement of works, the Contractor shall submit to the Engineer for approval the traffic management plan and works protection plan as agreed upon with Road managers and traffic authorities as well as the traffic management schedule.  Depending on the needs and Works progress, the traffic management plans shall be updated by the Contractor on a regular basis.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
13	Conditions of use of access roads to the Contract execution area  The Contractor will ensure access routes for rescue teams (ambulance, fire brigade, etc.) for the entire time of the works carried out, marking out roads, exits, passages for pedestrians and parking for vehicles used in the construction site.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
14	Obligation to build construction site facilities, technological roads and yards  Construction site facilities, technological roads and yards must be completed prior to the commencement of construction works.  Construction site facilities are used to store building materials, for garaging, refuelling and repairing of vehicles, machines and equipment, and to provide location of social facilities (locker rooms, office, workshop, portable sanitary cabins) and waste containers.  Equipment for site facilities should meet, among others, the conditions described in detail in consecutive items of the table 46, 62, 65 – 70, 85 – 87, 93.  When planning the above components of the construction site, it is needed to ensure limitation of their area to a necessary minimum.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
15	Conditions for location of site facilities, backyards, storage sites etc.  Site facilities in the form of reloading/storage/construction yards shall be fenced and hardened using concrete road slabs.  One should designate a sealed place on the site for fuelling and for minor repairs to the construction equipment (the sealing should include placement of a geo-membrane – foil underneath the concrete slabs).	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020. Problems occurred with the implementation of the measure. In the 3rd quarter of 2021 (4th quarter of the Contract implementation), the need for additional sealing of the subgrade zone of the construction site facilities (with concrete slabs and membrane) in the area of stationary, inactive construction equipment was determined. The Contractor has declared that no construction equipment repairs will be carried out at the site, thereby reducing the risk and potential for contamination of the ground environment. No problems were identified with the implementation of the measure in the other quarters.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
16	Conditions for location of site facilities, backyards, storage sites etc.  Materials storage place, social facilities and parking lots for machines and equipment should be located:  a) in the greatest distance from residential houses,  b) in the areas with the lowest natural values, taking into account the principle of minimising land acquisition and transformation of its area and the obligation of land reclamation after completion of works,  c) outside the immediate vicinity of flood waters of the river and outside the areas where water may be contaminated,  d) outside the embanked area,  e) at a distance of not less than 100 m from existing water courses, reservoirs and wetland sites;  f) in the areas ensuring no impact of noise on acoustically protected areas.  The locations intended for site facilities and the above-mentioned components of the construction site, as well as the Site Facilities Plan should be agreed with a team of environmental experts (including a phytosociologist and zoologists) and presented for the Engineer's approval together with expert agreements.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
17	Conditions for location of technological roads  Technological roads should be located:  a) outside the areas with the highest natural values; if the condition cannot be met in a given location, technological roads should be located in the immediate vicinity of works, taking up minimum necessary space of the areas;  b) at the maximum possible distance from existing watercourses, water reservoirs and wetlands;  c) in the first place on existing roads, including existing roads located next to and on the embankments;  d) in a way avoiding felling of trees and shrubs.  The locations intended for technological roads should be agreed with a team of environmental experts (including a phytosociologist in particular) and presented for the Engineer's approval together with expert agreements.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
18	Performance conditions for works Organisation of and technical conditions for the performance of works associated with the construction of the project shall eliminate the possibility of disturbing water conditions.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
19	Conomical use of the site and limitation of works on the embanked area Organisation of the construction site shall include protection of the land surface comprising especially inclusion of the minimising rule for land acquisition and transformation. One should adopt the minimum width of work zone to damage the smallest possible area of vegetation. All works related to the implementation of the Contract should be carried out to the maximum extent possible outside the areas of the existing embanked area.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
20	Economical use of the site - materials storage place When outlining storage spaces, their number and area should be limited to the extent necessary for the current works or activities. In the case the areas intended for storage of materials become empty, such areas should be reused as far as possible for further storage of materials.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
21	Buy-outs and compensation  Buy-outs and compensation as well as assistance for Project Affected Persons (pursuant to Land Acquisition and Resettlement Action Plan).	NOT APPLICABLE The measure implemented before the execution period of works.
22	Payment of compensation  Payment of compensation by the Contractor for temporary acquisition prior to the commencement of works (in accordance with the Land Acquisition and Resettlement Action Plan).	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
23	Management of soils coming from the construction site  Soils located on the construction site (including earth masses) should first be used on the construction site. The remaining excess of soil should be managed in accordance with the design documentation. The procedure for dealing with soil constituting waste should be presented in the Waste Management Plan prepared by the Contractor and submitted to the Engineer for approval prior to the commencement of works (in accordance with item 84 – preparation of a Waste Management Plan (WMP)).	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
24	Conditions for the use of soil applied for construction of the embankment  The flood embankment shall be designed of natural soil assuring proper parameters – strength and condensation.  Relevant condensation of slopes shall be obtained through placement and compaction of soil in layers of about 20 cm to reach the proper condensation rate Is > 0.92.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 1st quarter of 2021 and was continued for the entire period of execution of works.
25	Prohibition to obtain soil from the embanked area It is not allowed to extract soil from the embanked area.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
26	Prohibition to interfere with watercourse beds and riverside zone Within the Contract implementation period no interfering is allowed in channels and banks of water-courses, which includes: a) prohibited traffic of vehicles, machines, and devices; b) prohibited extraction of aggregate from the riverbed for construction purposes; c) prohibited intake of water from the riverbed; d) prohibition to pollute and litter the Biała riverbed and the embanked area, especially with diesel derivatives, storage of materials, etc. – the construction works cannot result in deterioration of the cleanliness of surface water and of groundwater.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
27	Removal of topsoil layer In order to protect the layer of topsoil from the Contract execution area: a) prior to the commencement of earthworks on a given area, it should be inspected for the presence of protected species; b) prior to the commencement of works, the top layer of soil should be removed from the works area, and it should be stored in piles in vicinity of the work zone; c) one should not perform the works associated with the removal of the top layer of soil during intensive rainfall or just afterwards. Earthworks should be carried out under the supervision of a naturalist.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.
28	Storage of topsoil  The removed layer of the topsoil should be stored in the following way:  a) the removed topsoil should be stored beyond the area of earthworks in piles;  b) the precise location of topsoil piles should be pre-arranged with a team of environmental experts (including phytosociologist and zoologist expert), so that the topsoil storage does not degrade natural habitats and protected species, nor does it adversely affect the condition of trees and shrubs;  c) stored topsoil heaps should be protected from damage, running over, thickening, storage of building materials, etc.;  d) storage piles of topsoil, until they are reused for final shaping of the embankment and adjacent areas, should be kept in adequate humidity, in a manner allowing for its reuse — they should be systematically sprinkled, with a frequency depending on the weather.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020. Problems occurred with the implementation of the measure. In the 1st quarter of 2021 (the third quarter of Contract implementation), isolated incidents of waste contamination of the stored topsoil and mineral soil masses (municipal waste, construction waste) were identified. In addition, in the 3rd quarter of 2021 (4th quarter of the Contract implementation), a single incident of one of the topsoil piles being raided by a construction vehicle was found. The Contractor has intensified measures to protect the topsoil and protect it properly with signing. No problems were identified with the implementation of the measure in the other quarters.
29	Use of topsoil After finishing the construction works, the topsoil should be entirely used to reinstate the area.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2021 and was continued until the end of execution of works.
30	Collecting the mineral soil layer About 40 cm thick layer of mineral soil should be removed after removing the topsoil (locally more due to placement of the bentonite mat).	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
31	Storing the mineral soil  The removed layer of mineral soil should be stored in the following way:  a) removed mineral soil should be stored beyond the area of earthworks in piles;  b) the precise location of mineral soil piles should be pre-arranged with a team of environmental experts (including phytosociologist and zoologist expert), so that mineral soil storing does not degrade natural habitats and protected species, nor does it adversely affect the condition of trees and shrubs;  c) storage piles of mineral soil should be secured against: contamination, being driven over by vehicles, compaction, storage of building materials, etc.;  d) storage piles of mineral soil, until they are reused for final shaping of the embankment and adjacent areas, should be kept in adequate humidity, in a manner allowing for its reuse – they should be systematically sprinkled, with a frequency depending on the weather.	IMPLEMENTED Implementation of the measure was started in the 1st quarter of 2021 and was continued until the 4th quarter of 2021. Problems occurred with the implementation of the measure. In the 1st quarter of 2021 (the second quarter of Contract implementation), isolated incidents of waste contamination of the stored topsoil and mineral soil masses (municipal waste, construction waste) were identified. The Contractor has intensified measures to protect the topsoil and protect it properly with signing. No problems were identified with the implementation of the measure in the other quarters.
32	Use of mineral soil The stored mineral soil should be used at later stages of construction.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2021. No need to undertake measures was determined over the next quarters.
33	Permissible date of removing (felling) trees and shrubs  The removal of trees and bushes should be limited to the necessary minimum.  The felling should be performed beyond the hatching season of birds – from October the 16th until the end of February.  Occasional felling may be done during the hatching season of birds under environmental supervision – only after an ornithologist stated that nests and hollows are not occupied, there are no nestlings, and trees or shrubs to be removed are not inhabited by other animals under protection.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
34	Environmental supervision before and during the removal (felling) of trees with diameter of over 40 cm at breast height  In the case of removing trees with diameter of over 40 cm at breast height, the following rules apply:  a) The removal (felling) of trees with diameter of over 40 cm at breast height, should be preceded with inspection for those trees in terms of identifying protected species of invertebrates and bats, done by expert entomologist and expert chiropterologist, not later than 1 week before the felling of a given tree;  b) in case of identifying the occurrence of protected species of invertebrates and/or bats in trees to be removed (felled), the abovementioned experts shall indicate acceptable time and methods for the removal and shall determine proceeding methods for wood inhabited by species of protected animals.  c) Time of the removal (felling) established with the above-mentioned experts cannot violate the conditions determined under item 33 - Acceptable time of removing (felling) trees and shrubs. In case of trees with identified presence of bats, the optimal time of felling is from September the 1st to October the 31st;  d) The removal (felling) of trees diameter of over 40 cm at breast height should be performed under a direct supervision of the abovementioned expert entomologist and expert chiropterologist;  e) In case of identifying the presence of specimens of protected species of invertebrates and/or bats in trees to be removed (felled), the above-mentioned experts shall determine proceeding methods for wood inhabited by species of protected animals;  f) In case of identifying the presence of protected species of invertebrates and/or bats in trees to be removed (felled) and/or in trees to be removed (felled), one should obtain an administrative decision required by law, which would allow for departure from the prohibitions applying to protected species of invertebrates and/or bats in trees planned to be removed (felled) and/or in trees to be removed (felled) and/or in trees to be remo	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
35	Protection of tree trunks not intended for removal (felling)  Prior to the commencement of construction works, the tree trunks not intended to be felled should be protected against mechanical damage for the time of works (e.g. through application of fencing, trunk covers made of straw mats or jute, sheets made of planks or OSB panels — up to the level not lower than 150 cm).  In case of applying plank covers, the planking should be attached to the trunk (e.g. with wire bands or steel tape) in a way that does not harm the tree.  Within the Contract implementation period, the condition of protection for tree trunks exposed to damage should be monitored on an ongoing basis and the protection should be maintained in a proper condition providing efficient protection against mechanical damage.  The above-mentioned trunk protections should be removed after finishing the works.  Works near root systems and trunks should be done by hand. It is not allowed to leave the root blocks uncovered for a long time to prevent them from drying out.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020. Problems occurred with the implementation of the measure. In the period from the 4th quarter of 2020 (the first quarter of the Contract implementation) to the 1st quarter of 2022 (the last - sixth quarter of the Contract implementation) problems were found with the preparation and maintenance of the proper technical condition of the fencing of trees and shrubs (mesh). The Contractor was systematically repairing the fences, while at the same time the condition of the fences deteriorated due to weather conditions and the construction works being carried out, particularly in winter periods.
36	Protection of areas below tree and shrub crowns Construction works should be carried out in a way that does not harm trees and shrubs that have not been intended for removal (felling).  At a distance of less than 1 m from the limit of projection of the crown of trees and shrubs not intended for removal (felling), it is prohibited to: a) establish technological roads and yards, parking places, and other elements that could affect soil compaction and change in soil aeration; b) conduct the traffic and parking of vehicles, machinery and equipment; c) store earth masses (including topsoil) and building materials (in particular bulk materials); d) condensate the ground; e) smoke or use fire, use equipment or machines producing high temperature that can cause drying of the crown of trees. The storage of cement, aggregates, oils, fuels and binders is prohibited at a distance of less than 10 m from trunks of trees and shrubs not intended for removal. The method of forming and compacting the embankments in the vicinity of trees and shrubs not intended for removal should be agreed with an expert dendrologist, and the results of the findings should be submitted to the Engineer for approval.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020. Problems occurred with the implementation of the measure. In the period from the 4th quarter of 2020 (the first quarter of the Contract implementation) to the 1st quarter of 2022 (the last - sixth quarter of the Contract implementation), due to spatial limitations of the works area, instances of storing building materials (including earth masses) and parking construction vehicles at a distance of less than 1 m from the border of the crown projection of trees and shrubs not intended to be cut down were found. The team of environmental experts has not found that the described cases would pose a threat to the health of the above-mentioned trees and shrubs; however, it has recommended the Contractor to remove the building materials from vicinity of trees and shrubs in the soonest possible time as well as to adjust the parking areas of construction equipment to the surrounding zones of the trees and shrubs left outside the felling.
37	Protection of tree branches exposed to damage  Tree boughs should be secured by e.g. tying them to the lowest branches (boughs) or to ones placed at small height, to the ones placed above, or to support them with a prop to avoid damages to bark.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
38	Preventive cuts of tree branches exposed to damage In the case of boughs and branches exposed to mechanical damage by working or moving vehicles, machinery and devices, preventive cuts of tree branches exposed to breakage should be performed.  These cuts – performed under the supervision of an expert dendrologist - cannot disturb the natural habit of trees (they cannot cover more than 1/3 of the green mass), they should ensure stability and statics of trees (pruning must be even on each side of the crown).	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2021. Problems occurred with the implementation of the measure. In the period from the 4th quarter of 2021 (the fifth quarter of the Contract implementation), instances of damage to individual trees growing on the boundary of the works execution area were identified. Problems were also found in the implementation of the required measures for the early protection of branches at risk of damage and immediate care measures for these trees (measures taken late).  No need to undertake measures was determined over the next quarters.
39	Performance of works within root masses of trees and shrubs  Works in the vicinity of root masses of the trees and shrubs not intended for removal (felling) should only be carried out manually, subject to the following conditions:  a) do not cut the coarse roots (with a diameter above 4 cm);  b) excavations should be carried out not closer than 2 m from the trunk;  c) the time of root exposure to drying should be shortened to the minimum (while maintaining the conditions referred to in item 40 - Securing of exposed roots of trees and shrubs);  d) the suitable period for performing the works in question is from October to April,  e) it is prohibited to store any materials, soil or construction waste near tree trunks.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
40	Exposed roots of trees and shrubs Exposed roots of trees and shrubs not intended for removal (felling) should be covered with straw or jute mats. At positive temperatures, these mats should be abundantly moistened with water (to prevent drying of the roots), while at negative temperatures these mats should be dry (to avoid freezing of the roots).	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
41	Securing of damaged trees and shrubs In case aboveground parts of trees and shrubs not intended for removal have been damaged, the necessary care measures should be carried out immediately, adequate to the place and type of damage. In case of root damage, the damaged ends should be trimmed off and the roots secured with a fungicide. The above-mentioned activities should be performed in consultation with the team of environmental experts — expert dendrologist, and after they have been completed, the Engineer should be presented with an opinion on the abovementioned team concerning the correct performance of the activities.	IMPLEMENTED Implementation of the measure was started in the 3rd quarter of 2021 and was continued until the 4th quarter of 2021. Problems occurred with the implementation of the measure. In the period from the 4th quarter of 2021 (the fifth quarter of the Contract implementation), instances of damage to individual trees growing on the boundary of the works execution area were identified. Problems were also found in the implementation of the required measures for the early protection of branches at risk of damage and immediate care measures for these trees (measures taken late).  No need to undertake measures was determined over the next quarters.
42	Protection of vegetation growing beyond the work area  The work area should be clearly marked in a way visible for operators of heavy equipment in order to avoid damage to vegetation located beyond the set-out work area.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
43	One-time environmental inventory within the works area before works commencement Prior to the commencement of works, a one-time environmental inventory of the Contract execution area should be performed, executed by a team of environmental experts, referred to in item 103 - Providing a team of environmental experts. The purpose of the inventory is to determine the current distribution of natural habitats and habitats and sites of protected species of flora and fauna, including ongoing revision of information on the subject as included in the Environmental Impact Report (drawn up in 2014, together with later updates) and in the Project Data Sheet (drawn up in 2014).  If the presence of natural habitats and habitats or protected sites of plant and animal species in the Contract execution area has been confirmed, it is necessary to act as follows:  a) in the case of natural habitats - further actions should be agreed with a competent environmental team's expert, and the results of the findings should be submitted to the Engineer for approval;  b) in the case of habitats or sites of protected species - perform the actions referred to in item 53 (Obtaining a decision allowing for derogations to the principles of species protection of plants, fungi and animals for the habitats and sites of protected species indicated in the EIA and the Investment Data Sheet) and item 54 (Obtaining a decision allowing for derogations to the principles of species protected species);  c) identified individuals of protected species (e.g. amphibians, reptiles, birds) should be relocated outside the Contract area to a place with similar habitat conditions, far away enough from the Contract area, so that animals cannot return to this area until the works have been finished. All works will require an appropriate administrative decision in accordance with the procedure indicated in the above item - b). (Before relocating amphibians, one needs to obtain the permit of the owner or manager of the reservoir, watercourse or site to which they will	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.
44	One-time environmental inventory for the newly formed embanked area Prior to the commencement of removal works within the newly formed embanked area, one should inventory flora. All identified specimens of alien and invasive plant species should be removed from the newly formed embanked area.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.
45	Limiting the Contract execution time  The Contractor should ensure such organisation of works as to shorten the Contract execution time as much as possible and in this way minimise the adverse impact of works on animals living in the Contract execution area and its surroundings.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
46	Securing the Contract execution area against small animals entering the site  Works should be performed in such a way as to avoid killing animals.  If seasonal migrations of amphibians are reported to take place on the Project site, the area of conducting the works should be secured so that the amphibians cannot get to the site where they would be at risk - for this purpose, one should properly fence the area of works with a fencing having a minimum height of 0.5 m, including 10 cm overhang on the outside (e.g. foil, agro-textile). In the bottom part, the fencing material should be driven into the ground – fences shall tightly adjoin the ground and they need to be anchored.  Amphibians should be caught and moved outside the Contract site under environmental supervision done by an expert naturalist experienced in field works, having know-how and abilities to recognise species and habitats in a wide range.  Determining the precise location of the fencing securing the Contract execution area against animals entering the site and installation of the above-mentioned fencing should be carried out under the supervision of an expert herpetologist and an expert theriologist.  The above-mentioned action should be performed without detriment to the implementation of the activities indicated in items 49 and 50.  During the entire period of the Contract implementation, in case of applying the abovementioned measures, the condition of the abovementioned measures, the condition of the abovementioned fencing should be inspected on regular basis and any possible gaps should be immediately removed, including:  a) from March the 1st to August the 31st, these inspections should be carried out at least once every 3 days;  b) from September the 1st to the end of February - not less than once every 10 days.  Fencing inspections should be carried out with the participation of the above-mentioned experts.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
47	Inspection of places that could be traps for small animals  The Construction site, and especially the opened excavations, should be properly protected against forming of traps for animals. In the end of each working day one should protect such sites through filling, covering with stiff materials (e.g. planks, chipboards), or through tight fencing.  The excavations should be left opened for the shortest possible time.  Prior to the commencement of works on each working day one should inspect the construction site in terms of animal presence, and similarly inspect the bottom and walls of excavations prior to their removal (filling, embedding). If necessary, one should allow the animals to leave the excavations or — eventually — catch the animals in a safe way and release them beyond the project area.  In the periods from March the 1st to May the 15th and from September the 15th to October the 15th, a second inspection should also be carried out every day in the late afternoon.  The last inspection for the presence of animals in the excavations should be carried out immediately before backfilling the excavations.  Inspections should be carried out under the guidance and in accordance with the guidelines of an expert herpetologist and expert theriologist, who will also coordinate and indicate the places of release of caught animal species.  All wells, excavations and other anthropogenic structures which may be a trap for amphibians and small mammals should be secured according to the guidelines and under the guidance of the abovementioned expert herpetologist and expert theriologist.	IMPLEMENTED Implementation of the measure was started in the 1st quarter of 2021 and was continued until the end period of execution of works.  Problems occurred with the implementation of the measure in the 1st quarter of 2021 (second quarter of Contract implementation) and in 3rd quarter of 2021 (fourth quarter of Contract implementation).  Some excavations were found to be present without adequate fencing to prevent access by small animals.  According to the opinions of the Contractor's team of environmental experts, no activity of amphibians or small mammals was noted on the site.  No problems were identified with the implementation of the measure in the other quarters.
48	Regular removal of stagnant water in the Contract execution area  In the Contract implementation period, one should avoid forming of ruts and other land pits, where water may stay, in order to avoid provision of potentially unstable breeding habitats for amphibians. It is necessary to permanently eliminate stagnant water in places which may interfere with the current or scheduled works as well as in places where current or scheduled traffic of vehicles, machines and equipment.  This measure aims to prevent the settlement of protected amphibian species in the Contract execution area during the performance of works.  This measure should be conducted in consultation with an expert herpetologist who will also supervise if it is implemented correctly.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works. In the period from the 3rd quarter of 2021 (the fourth quarter of the Contract implementation) to the 1st quarter of 2022 (the last - sixth quarter of the Contract implementation) problems occurred with the implementation of the measure. The places of water deposits were recorded in the area intended for the execution of the Contract. There was no threat of herpetofauna colonising the water deposit areas due to the lack of herpetofaunal activity according to the opinions of the Contractor's team of environmental experts.  No problems were identified with the implementation of the measure in the other quarters.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
49	Ensuring the possibility of safe migration of amphibians Works should be carried out in a manner that ensures the safe migration of amphibians, including the migration through the planned internal roads within the Contract execution area. Detailed rules for meeting this condition should be agreed with a herpetologist, who will also supervise if it is implemented correctly. The above-mentioned agreement with a herpetologist should be submitted to the Engineer for approval.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
50	Trapping and relocating small animals from the Contract execution area  If small animals are reported to inhabit the Contract execution area (amphibians, reptiles, small non-flying mammals, bats), in places where works may pose a threat to their life or health, they should be trapped and relocated from the Contract execution area to the appropriate habitats, located outside the impact of the works.  These actions should be performed under the supervision of a competent environmental expert (herpetologist, theriologist and/or chiropterologist).	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
51	Fighting alien invasive plant species  When conducting the works, alien invasive plant species should be removed (at least twice a year, in the entire Contract execution area), until they disappear and are replaced with local plants.  Prior to the commencement of removal within the newly formed embanked area, one should inventory flora. All identified specimens of alien and invasive plant species should be removed from the newly formed embanked area.  Removal of alien invasive plant species should be done by pulling out the plants (along with the root ball), transporting and then disposing of them.  The actions should be carried out in accordance with detailed instructions specified by an expert phytosociologist.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.
52	Regular inspections of the team of environmental experts within the Contract implementation period Works and other works performed within the Contract implementation period should be carried out under the regular supervision of a team of environmental experts (referred to in item 103). These experts should, in particular, carry out regular inspections of the entire Contract execution area (at least once a month) and submit their comments and recommendations to the Contractor's staff responsible for carrying out works in accordance with the EMP conditions. The notes from the inspections should be made in writing, attached to the monthly reports on the implementation of the EMP conditions (referred to in item 107 - Reporting the implementation status of the EMP).	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
53	Obtaining a decision allowing for derogations to the principles of species protection of animals for the habitats and sites of protected species listed in the EIA Report and the project Data Sheet In respect of the resources of protected species of animals, as listed in the Environmental Impact Report along with subsequent updates, and in the Project Data Sheet, the following actions should be performed before the commencement of construction works:  a) The Contractor shall obtain and submit to the Engineer for approval a written opinion of the team of environmental experts including, inter alia, the specification of:  • the extent of the possible impact of the works on the identified natural resources, and  • the need to obtain the decision referred to in item b herein, and then, if it proves necessary in the light of the above-mentioned opinion, the Contractor shall carry out the activities referred to in items b-d (hereunder); b) before taking any actions that may lead to the destruction of habitats and sites or scaring the individuals of protected species, the Contractor is required to obtain the administrative decision required by law, allowing for derogations to the binding prohibitions regarding protected species of plants, fungi and animals; c) the Engineer should be notified of the decision obtained; d) the Contractor is obliged to precisely and timely implement the conditions contained in the above-mentioned decision.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.
54	Obtaining a decision allowing for derogations to the principles of species protection of plants, fungi and animals for the newly discovered habitats and sites of protected species  If, prior to the commencement or during the performance of construction works in the Contract execution area, the presence of habitats or sites of protected species of flora and fauna has been reported (other than the sites referred to in item 53), then the Contractor will undertake measures listed in item 53.  Relocation of protected species	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 1st quarter of 2021. No need to undertake measures was determined over the next quarters.
55	Prepare a report and photographic documentation on the activities related to the relocation/destruction of existing plant or animal species, in accordance with the guidelines provided in the obtained administrative decision.  The report should state at least the type and quantity of relocated species, indicate the places from which and to which they will be relocated, the manner of relocation and the time.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
56	Fossil remnants of plants and animals In case of discovering fossil remnants of plants or animals, one should notify the regional director for environmental protection about it immediately.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
57	Restoration of topsoil layer and green areas and tidying up the site after completion of works	IMPLEMENTED

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
	After completion of works:  a) construction facilities, technological roads and yards should be dismantled, whilst road slabs and sand collected from ballast should be transported outside the Contract execution area to the place specified beforehand (accepted by the Engineer);	No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2021 and was continued until the to end period of execution of works.
	b) in the areas acquired in connection with the implementation of the Contract (within the boundaries of the Contract execution area), appropriate agrotechnical measures should be taken (soil loosening, fertilization, etc.), in order to prepare the restoration of the fertile soil layer;	
	c) in the areas acquired in connection with the implementation of the Contract (within the boundaries of the Contract execution area), the fertile soil layer should be restored (including the use of the topsoil collected from the area of works);	
	d) treatments facilitating the restoration of green areas should be performed – slopes of the flood embankment and any spots, from where the existing grass vegetation would be removed, should be formed using the priorly removed ground material (as a bank of seeds) and should be sown with such species of native grass species as: false oat-grass (Arrhenatherum elatius), orchard grass (Dactylis glomerata), Timothy-grass (Phleum pratense), meadow foxtail (Alopecurus pratensis);	
	e) proper care of the restored green areas should be ensured (until the end of the Defects Notification Period, Guarantee and Warranty Period);	
	f) tidy up the Contract execution area; g) the area covered by the works as used by, in particular, machines, means of transport, and areas adjacent to the area of works should be restored to its original state.	
	The measures described in items b, c, d, e (above) should be performed under the supervision of an expert phytosociologist and an expert dendrologist, including, notably:  a) agreeing on the precise deadlines for works;	
	<ul> <li>b) agreeing on the composition and quantitative proportions of seed mixtures planned for sowing;</li> <li>c) agreeing on the conditions for preparation of</li> </ul>	
	soil; d) agreeing on the principles of caring for the restored green areas;	
	e) submission of the results of the above- mentioned arrangements for the Engineer's approval;	
	f) supervision over the implementation of activities supporting the recreation of green areas and supervision over the care of these areas (until the end of the Defects Notification Period, Guarantee and Warranty).  Activities related to the recreation of the topsoil	
	layer and the restoration of green areas referred to	

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
	in this item of the EMP should be commenced as	
58	soon as their implementation is possible.  Implementation of replacement planting  Design replacement planting in accordance with potential natural vegetation adapted to local habitat conditions – species of trees and their quantity should correspond to the native species and quantity of trees planned to be removed. Invasive alien species shall not be introduced. Apply at least 3-years old seedlings for the planned planting, with covered root system. The planting shall be protected against biting by deers and hares.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 1st quarter of 2021, the need to implement the measure also arose in the 2nd quarter of 2021 and the 3rd quarter of 2021 (September 2021 only).  No need to undertake measures was determined over the next quarters.
	Caring for grasslands  Caring for grasslands in the first growing season	
59	after planting consists in:  • fertilising, lawns should be supplied with mineral fertilizers as needed (no more than 3-5 kg of NPK/are/year). Mixtures of fertilizers should be prepared in such a way as to supply the grass with ingredients required in particular seasons:  • in spring, the lawn requires a mixture with dominating nitrogen,  • starting from the half of summertime nitrogen should be reduced while increasing potassium and phosphorus doses,  • the final fertilisation should not contain nitrogen, but potassium and phosphorus.  • additional seeding,  • mowing:  • the first mowing should be carried out when the grass is about 10 cm high and should be cut to a height of 6 cm,  • subsequent mowing should take place at such intervals so that the grass does not exceed 15 cm in height,  • the last pre-winter mowing should be carried out 1 month before the expected frosty weather (for the climate of Poland the first half of October may be assumed),  • after each mowing, cut grass should be removed from all surfaces and harvested hay should be stored outside the construction site,  • it is necessary to maintain adequate soil moisture.  Mowing of grasslands in subsequent growing seasons should be carried out twice a year.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
60	The use of building materials in accordance with regulations and standards and harmless to the environment  Materials delivered and used for construction shall be supervised, and the source of soil material origin shall especially be checked.  Only building materials that are not harmful to the environment (natural, environmentally friendly or neutral) should be used for the implementation of the Contract. One should not apply substances, which would be lethal to the occurring animals, except for substances necessary for proper operations of the construction machines.  Used materials, raw materials, fuels, fertilizers, cement and concrete mixes shall have relevant attestations and be allowed for use. The applied material cannot contain substances, which may be washed out, and especially substances, which are particularly harmful to the water environment, occurring in a form of soluble compounds.  Material applied for the embankment should be made of natural materials, without the use of materials emitting hazardous substances to the ground-water environment.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
61	Technical efficiency and inspections of vehicles, machines and equipment  In order to prevent contamination of soil and water, only modern and fully technically efficient construction and transport equipment should be used to conduct the works.  The Contractor should carry out regular inspections of the technical condition of the construction and transport equipment working, review the current condition of vehicles, machines and equipment, and eliminate with any resources available any permeating of contamination to soil and water, including in particular spilling of fuel, hydraulic oils and petroleum substances, both during operating, refuelling, transport, as well as the work of vehicles, machines and equipment.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works. In the period from the 1st quarter of 2021 (the second quarter of the Contract implementation) to the 4th quarter of 2021 (the fifth quarter of the Contract implementation) problems occurred with the implementation of the measure. The appearance of single leaks of operating fluids underneath construction vehicles was noted. The Contractor prevented the possibility of substances from leaks entering the ground environment by lining impermeable mats under parked construction vehicles. No problems were identified with the implementation of the measure in the other quarters.
62	Conditions for the location of the sites for collection and production of building materials Building materials, in particular bulk materials, should be collected only on hardened surfaces within the construction site facilities. These materials cannot be collected at a distance of less than 100 m from existing watercourses.  Analogous conditions apply to the places of production of building materials (cement mixes, prefabricates, aggregates, etc.).	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
63	Reducing the time and number of drainage and prohibition to dispose of water from excavations directly to watercourses  The time for carrying out drainage should be reduced to the minimum and such methods should be applied to reduce the amount of pumped water and ensure its protection against contamination. The water pumped out form the excavations cannot be directly disposed to watercourses due to high content of suspension.  Before disposing to watercourses, the water should be purified of suspension, through the use of, e.g. sedimentation tanks.  Suspensions after treatment should be managed in a manner consistent with their qualifications eliminating the possibility of entering the watercourse or storage in places where flooding or permeating may occur.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
64	Conditions for movement of vehicles, machines and equipment in the Contract execution area  Movement of vehicles, machines and equipment should be conducted only:  a) within the construction site facilities' area;  b) on existing roads; c) on technological roads and yards; d) on internal roads (after they have been built).	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
65	Parking place for machines and vehicles after finishing work  Machines and vehicles should be parked, every day after finishing the work, in places intended for parking in the construction site facilities' area. After stay over periods of the vehicles parked during the break in operation, the parking lot should be inspected for the presence of any leak of operational substances prior to the start-up.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  Problems occurred with the implementation of the measure. In the period from the 4th quarter of 2020 (the first quarter of the Contract implementation) to the 1st quarter of 2021 (the second quarter of the Contract implementation), due to spatial limitations of the works area, single instances of parking construction vehicles after the end of works on a given day at a distance of less than 1 m from the border of the crown projection of trees and shrubs not intended to be cut down were found. The team of environmental experts has not found that the described cases would pose a threat to the health of the above-mentioned trees and shrubs; however, it has recommended the Contractor to adjust the parking areas of construction equipment to the surrounding zones of the trees and shrubs left outside the felling.  No problems were identified with the implementation of the measure in the other quarters.
66	Sealing of the ground intended for movement of vehicles, machines and equipment at the construction site facilities  The construction site facilities' area intended for movement of vehicles, machines and equipment should be sealed from the ground using insulating materials to guarantee the soil protection.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
67	Prohibition to carry out maintenance activities and repairs of vehicles, machines and equipment outside the construction site facilities' area  Maintenance of vehicles, machines and equipment (including notably change of oils, liquids, etc.) may be carried out only in designated places on the construction site facilities' area, meeting the conditions specified in item 68 - Designation and sealing of places of garaging and maintenance of vehicles, machines and equipment.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
68	Designation and sealing of places of garaging and maintenance of vehicles, machines and equipment Places intended for maintenance of vehicles, machines and equipment (including garaging, refuelling and technical service yards, etc.) should be designated and properly marked on the site facilities.  The above-mentioned places intended for maintenance of vehicles, machines and equipment should be periodically (until completion of the construction) lined with impermeable insulating materials, protecting the subsoil against penetration of solid or liquid contaminants.  When determining the location of the places, safe distance from flowing and standing water courses should be taken into account, in particular. The detailed location of the above places should be agreed in advance with a team of environmental experts (including an expert phytosociologist and an expert zoologist).	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  In the period of the 1st quarter of 2021 (the second quarter of the Contract implementation) and from the 3rd quarter of 2021 (the fourth quarter of the Contract implementation) to the 4th quarter of 2021 (the fifth quarter of the Contract implementation), problems occurred with the implementation of the measure.  Cases of inadequate protection of the additional (mobile) refuelling point for construction vehicles were found (e.g. lack of signage, lack of availability of sorbent on the mobile refuelling vehicle).  No problems were identified with the implementation of the measure in the other quarters.
69	Ensuring the outflow of water from parking lots and roads to sewage systems  Parking yards for equipment and access roads should be made with a slope ensuring outflow of rainwater and snowmelt and wastewater to sewage devices in a way that prevents any contamination from entering the ground or surface water.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
70	A stand with a sorbent near the service and parking lots for vehicles, machines and equipment Site facilities should be provided with sorbents for neutralising the potential failure leak of hazardous substances (including diesel derivatives) from construction machines and equipment and from trucks. In the vicinity of the places intended for servicing vehicles, machines and equipment (including garaging, refuelling and technical service yards, etc.) it is necessary to ensure adequate quantities of sorbents.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
71	Guidelines for refuelling vehicles, machines and equipment Refuelling should be carried out using mobile or stationary fuel distribution points, with appropriate safeguards, such as a stand with sorbent used for removal of leaks and outflows of petroleum derivatives.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works. In the period from the 3rd quarter of 2021 (the fourth quarter of the Contract implementation) to the 4th quarter of 2021 (the fifth quarter of the Contract implementation) problems occurred with the implementation of the measure. Cases of inadequate protection of the additional (mobile) refuelling point for construction vehicles were found (e.g. lack of signage, lack of availability of sorbent on the mobile refuelling vehicle). No problems were identified with the implementation of the measure in the other quarters.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
72	Guidelines for washing and cleaning vehicles, machines and equipment It is prohibited to designate places or wash vehicles near watercourses, i.e. at a distance of less than 100 m, water reservoirs, as well as places where water stagnation has formed (conditions specified in item 16 - Conditions for the location of construction site facilities, yards, storage/disposal sites, etc.).	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
73	Prevention of leaks from vehicles, machines and equipment  Maintenance of vehicles, machines and equipment used in the Contract execution area (including, in particular, cleaning the equipment after concreting works) are allowed only in designated places on the site facilities, adequately secured against the possibility of contamination of the ground and waters and equipped in such way as to enable the immediate removal of any contamination.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works. In the period from the 1st quarter of 2021 (the second quarter of the Contract implementation) to the 4th quarter of 2021 (the fifth quarter of the Contract implementation) problems occurred with the implementation of the measure. The appearance of single leaks of operating fluids underneath construction vehicles was noted. The Contractor prevented the possibility of substances from leaks entering the ground environment by lining impermeable mats under parked construction vehicles. No problems were identified with the implementation of the measure in the other quarters.
74	Procedure for emission of contaminants of petroleum derivatives In the event of a failure contaminating the ground, the following measures should be taken: a) take immediate actions to prevent the spread of contamination, by means of available resources (e.g. sorbents); b) immediately remove contaminated layers of soil and transfer them to a specialised company having a relevant permit for conducting the activity related to hazardous waste treatment; c) in case of major failures, use the procedures described in item 97 – Emergency notification rules.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 1st quarter of 2021. No need to undertake measures was determined over the next quarters.
75	Reducing time of works to daytime Construction works should be carried out in a daytime, i.e. from 6:00 to 22:00.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
76	Reducing noise of vehicles, machines and equipment Within the Contract implementation period only technically efficient vehicles, machines and equipment should be used, with noise emission (acoustic power) compliant with the binding regulations and which does not result in exceeding the environmental quality standards in the scope of permissible noise levels.  In case any inefficient vehicles, machines and equipment are found which can generate a higher noise level in their neighbourhood, they should be immediately replaced with the efficient ones.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
77	Reducing noise of pump sets In the case of carrying out works in the acoustically protected areas or in their vicinity, in order to reduce their inconvenience to residents, only such pump sets should be used which are equipped with soundproof housing which ensures the reduction of the noise levels to be compliant with the applicable regulations and standards (regarding permissible noise levels in the environment).	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
78	Control of noise level in acoustically protected areas In the case of works carried out in acoustically protected areas or in their vicinity, the noise level should be constantly monitored and, depending on the needs, appropriate technical and organisational measures ensuring noise reduction to be compliant with applicable regulations and standards (regarding permissible noise levels in the environment) should be applied.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
79	Limiting the power consumption of vehicles, machines and equipment  Vehicles, machines and equipment should be used with low power consumption and switch off power/engines during the break in operation.  Operating time of vehicles, machines and equipment should be reduced to the necessary minimum.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
80	Limiting air pollution with exhaust fumes In order to reduce the negative impact on the condition of the air:  a) only technically efficient vehicles, machines and equipment should be used, with the required approvals to reduce the emission of gaseous and particulate substances into the air;  b) a place should be provided for free manoeuvres of vehicles, such as yards; c) it is necessary to limit the movement of vehicles, machines and devices to the necessary minimum, as well as to limit the speed of traffic on the construction site; d) it is necessary to minimise the idling time of engines and follow the instructions on shutting down the machines and equipment during breaks in operation; e) it is necessary to minimise the number of truck deliveries for building materials; f) unnecessary, excessive concentration of works using heavy construction equipment shall be avoided g) vehicles should be parked with the engine turned off.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
81	Limiting dusting from the construction site  When carrying out construction works, the effects of secondary dusting should be limited by maintaining a high work culture, in particular by:  a) systematic cleaning of the construction site, b) applying the necessary technical and organisational measures to limit the emission of dust from the construction site, including storage places for building materials causing dusting; c) spraying dusty road surfaces within the construction site in dry periods, during deliveries.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  Problems occurred with the implementation of the measure. In the 3rd quarter of 2021 (4th quarter of the Contract implementation), cases of increased dusting were identified during traffic of construction vehicles. The Contractor had insufficient dust control due to the prevailing weather conditions (high temperatures, low humidity).
82	Keeping the roads clean In order to keep the roads clean and prevent dusting on the roads the following steps should be taken: a) the Contractor shall apply all available technical means and organise works to minimise the dusting and pollution of access roads to the Contract execution area; b) the Contractor shall apply protection on trucks delivering bulk materials that may cause dusting in transport (tarpaulins, cover sheets, and other types of covers); c) in places of departure of heavy equipment from the construction site, the Contractor will install stands where initial removal of soil or mud from vehicle wheels will take place; d) the Contractor shall clean lanes of public roads off of pollutions brought from the construction site in order to prevent secondary dusting by soil brought by wheels of vehicles providing services to the site.  Prohibition to burn fires and burn materials,	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
83	wastes, litter, etc.  It is prohibited to burn fires and burn materials, wastes and litter, etc. in the Contract execution area.	No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
84	Preparation of Waste Management Plan (WMP) Prior to the commencement of works the Contractor will prepare and submit for the Engineer's approval a Waste Management Plan, specifying the way of handling waste expected to be generated when conducting the works and taking into account, in particular, conditions for waste management included in the EMP.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarters.
85	Waste management principles  Waste should be properly managed:  a) Minimise the volume of produced waste;  b) Collect the waste selectively in marked containers, in separate and properly organised places, in conditions protecting against the impact of weather and the access of third parties and animals;  c) hand over to units having proper permits – for taking over, transportation, recovery or treatment of waste, respectively.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  In the period from the 1st quarter of 2021 (the second quarter of the Contract implementation) to the 1st quarter of 2022 (the sixth - the last quarter of the Contract implementation) problems occurred with the implementation of the measure.  Cases were found of inadequate waste management and lack of selective waste collection (e.g. municipal and construction waste scattered in places and not tidied up in the area of works carried out, lack of removal of waste lying in heaps of soil). No problems were identified with the implementation of the measure in the other quarters.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
86	Rules for handling hazardous waste  Hazardous waste should be segregated and stored separately in special sealed containers placed in the sealed, hardened area that is marked and secured against access by third parties, until it is handed over to entities authorised to handle it.  Principles of handling social and domestic sewage	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 1st quarter of 2021.  No need to undertake measures was determined over the next quarters.  IMPLEMENTED
87	Social and domestic sewage should be collected on the hardened area on the site facilities, in sealed holding tanks, content of which will be handed over to entities authorised to handle it.	No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
88	Preventing illegal dumping of litter and waste Prior to the commencement of works the Contractor will investigate the Contract execution area for the presence of possible illegal landfills of litter and waste. In case of identifying an illegal landfill, the Contractor will clear such sites by removing the waste and transporting it away to the treatment site. In the Contract implementation period, the Contractor will secure the Contract execution area against possible formation of such landfills.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works. In the period of the 1st quarter of 2021 (the second quarter of the Contract implementation) and from the 3rd quarter of 2021 (the fourth quarter of the Contract implementation) to the 4th quarter of 2021 (the fifth quarter of the Contract implementation), problems occurred with the implementation of the measure. The Contract execution area was found to be inadequately protected against illegal dumping sites. No problems were identified with the implementation of the measure in the other quarters.
89	Development of documents related to safety in the Contract execution area In the Contract execution area, it is necessary to maintain order and ensure proper organisation of works. Prior to the commencement of works, the Contractor will develop and then obtain the Engineer's approval for the following documents related to safety on the construction site: a) Health and Safety Plan (HASP); b) Construction Site Organisation Plan.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  Problems occurred with the implementation of the measure. Delays occurred in 4th quarter of 2020 (the first quarter of Contract execution) in the submission to the Engineer of this contractual documentation required at the stage before the commencement of works and resulting from the requirements of the EMP. At the end of the 4th quarter of 2020, the Contractor had supplemented all the required documents, which were approved by the Engineer.
90	Sapper reconnaissance and supervision in the Contract execution area In order to minimise the risk related to the possible occurrence of dangerous objects of military origin in the Contract execution area, the Contractor will ensure: a) prior to the start of works – reconnaissance at the Contract execution area to verify the presence of unexploded shells and misfires (a report with results of the above-mentioned sapper reconnaissance should be submitted to the Engineer for acceptance); b) when conducting the works – sapper supervision of works (carried out by the team of sappers), consisting in the regular checking and clearing of the Contract execution area of dangerous objects of military origin along with their disposal; c) in the case of finding dangerous objects of military origin in the Contract execution area implementation of procedures described in item 98 - Rules of procedure for unexploded shells.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  Problems occurred with the implementation of the measure. Delays occurred in 4th quarter of 2020 (the first quarter of Contract execution) in the submission to the Engineer of the contractual documentation required at the stage before the commencement of works and resulting from the requirements of the EMP (Quality Assurance Plan for the activities of the team of sapper's supervision experts). Until the end of the 4th quarter of 2020, the Contractor had supplemented all the required documents, which were approved by the Engineer.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
91	Documentation and monitoring of the technical condition of buildings exposed to tremor and vibrations  Before starting works during which tremors and vibrations threatening the local residents and nearby buildings and infrastructure facilities may occur, the Contractor will take an inventory of existing buildings and facilities, with particular reference to cracks and damages.  During the performance of the above-mentioned works, the Contractor will monitor the condition of these buildings and facilities on a regular basis.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020. No need to undertake measures was determined over the next quarterly periods.
92	Implementation of guidelines on work safety requirements The Contractor will ensure the implementation of detailed guidelines on work safety requirements, including in terms of: a) development of the construction site, including hazardous areas; b) storage and transport; c) electrical installations and devices; d) technical machines and equipment; e) work at heights; f) earthworks; g) selected renovation and demolition works, contained in applicable legal regulations.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
93	Ensuring the hygienic conditions In the Contract execution area, it is necessary to ensure the necessary number of portable toilets and ensure their use by employees, as well as ensure the training of all employees in maintaining appropriate hygiene conditions within the construction site and its immediate neighbourhood.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
94	Limiting the impact of transport on residents  Transport routes for building materials and equipment should be established to minimise the impact of transport on people – avoiding developed areas.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
95	Limiting the impact of works on residents The implementation time of the entire project will be limited to minimum. Such organisation of works should be ensured to allow for elimination of the impact of accumulation for the extension of embankment sections on the residents living nearby. The smallest possible number of construction equipment should work near buildings.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
96	Rules of procedure in connection with the flood risk  Works should be performed beyond the flood risk occurrence period.  In connection with the flood risk, the Contractor will prepare and submit to the Engineer's approval a document entitled: "Flood protection plan for the construction site, taking into account local hydrological and meteorological conditions in the vicinity of the construction site". The document shall contain e.g. a manual for procedure for the time of the potential occurrence of flood after commencing the works.  In case of flood, the Contractor will act in accordance with the procedures described in the above-mentioned document.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
97	Principles of notification of emergency situations In the event of emergency situations (other than a flood), accident, major failure, etc., the Contractor is obliged to take the following actions: a) immediately notify relevant services (Fire Service, Ambulance Service, Police, etc.); b) until the arrival of the relevant services, take the necessary actions to reduce the risk of loss of personnel, property and environment (as agreed with the relevant services, if possible); c) notify the Engineer and Employer; d) after the arrival of the relevant services, act strictly according to their guidelines and instructions.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
98	Rules of procedure for unexploded shells In the case of finding unexploded shells the Contractor shall: a) immediately stop works on the particular site; b) assure evacuation of the employees from the explosion risk area; c) immediately notify the sapper supervision team and the Police, and then follow the guidelines obtained from them; d) notify the Engineer and the Employer. For the discovered unexploded shells, it is absolutely prohibited to raise them, excavate them, bury them, transfer them or throw them to the fire or water, etc.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
99	Ensuring the archaeological supervision The Contractor is obliged to provide constant archaeological supervision for the time of conducting the earthworks. For this purpose, the Contractor shall: a) prepare a relevant action plan in this regard; b) ensure the participation of a team of archaeologists who conduct constant supervision of earthworks c) if necessary, obtain the permission required by law to conduct archaeological research from the relevant monuments conservator's office.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works. Problems occurred with the implementation of the measure. Delays occurred in 4th quarter of 2020 (the first quarter of Contract execution) in the submission to the Engineer of the contractual documentation required at the stage before the commencement of works and resulting from the requirements of the EMP (Quality Assurance Plan for the activities of the team of expert archaeologists). Until the end of the 4th quarter of 2020, the Contractor had supplemented all the required documents, which were approved by the Engineer.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
100	Procedures in case of discovering movable historical objects or archaeological sites  If an object is uncovered when conducting the works which may be or certainly is a historic monument or has a historical value, the Contractor is obliged to:  a) immediately stop any works that may damage or destroy uncovered objects in a given place; b) secure (by means of available sources) uncovered objects and the place where they were found against being destroyed, damaged or stolen; c) immediately notify the team of expert archaeologists and the Engineer; d) immediately notify relevant conservatory services; e) take further security measures, agreed with the team of expert archaeologists and the Engineer; f) facilitate and ensure carrying out documentary activities, archaeological research and other necessary activities indicated by an expert team of archaeologists and/or administrative authorities responsible for preserving the historic substance; g) after completing the activities and research listed in items d) and e), the uncovered mobile monuments should be relocated to appropriate institutions indicated by a team of archaeological experts and/or administrative authorities responsible for protecting the historic substance (in accordance with the applicable regulations and the content of the Permit referred to in item 99, letter c) — Providing archaeological supervision)  h) in the case of immobile monuments, after completing the activities and research listed in items d) and e), the guidelines should be implemented regarding further treatment of the uncovered historic substance, established by a team of archaeological experts and/or administrative authorities responsible for protecting the historic substance, established by a team of archaeological experts and/or administrative authorities responsible for protecting the historic substance, of in item 99, letter c) — Providing archaeological experts and/or administrative authorities responsible for protecting the historic substance (in accordance with applicable regu	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.
101	Training of the Contractor's staff for EMP implementation  The Contractor is obliged to train their managerial and engineering and technical staff on the rules and methods of implementation of these EMP conditions which, in accordance with Appendix 1 and Appendix 2 of the EMP, are assigned to the Contractor. Such training should be concluded with a test of participants' knowledge.  The Contractor, in monthly reports submitted to the Engineer, will provide information on the status of training for the Contractor's personnel within EMP conditions in the current reporting period.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
102	Appointment of the EMP coordinator in the Contractor's team  A person shall be appointed in the Contractor's team coordinating and supervising the measures related to EMP implementation.  The responsibilities of such person shall be, in particular:  a) supervision of implementation of particular EMP conditions over the next stages of Contract implementation;  b) regular monitoring of the status of implementation of individual conditions of Appendix 1 and Appendix 2 to the EMP in the Contract execution area;  c) informing the Contractor's team management on a regular basis of the obligations resulting from EMP on a given stage of works, and also of problems in EMP implementation,  d) co-operation with the rest of the Contractor's team (including a team of environmental experts, a team of archaeologists and a team of sapper supervision) in the scope of ensuring the implementation of the EMP;  e) preparation of commentaries and reports (initial, monthly, quarterly, ad-hoc, final report, reports to RDOŚ in Cracow - only to the extent resulting from the decisions obtained at the implementation stage, e.g. derogations, if they result in the need to report the activities in question to the Authorities); f) cooperation with persons responsible for the implementation of the EMP in the Engineer's and Employer's team.  The Engineer's approval is required for the person appointed to perform the above-mentioned function.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
103	Providing a team of environmental experts Throughout the whole Contract implementation period the Contractor shall provide the team of environmental experts, composed of the representatives of the following specialisations:  a) botanist - phytosociologist (natural habitats and protected plant species);  b) dendrologist (principles of care and protection of trees), c) zoologist - an expert in the field of invertebrates; d) zoologist - herpetologist (amphibians and reptiles); e) zoologist - ornithologist (birds); f) zoologist - chiropterologist (bats); g) zoologist - theriologist (non-flying mammals). Each specialist shall have carried out at least two natural supervisions in their professional carrier. Monthly and quarterly reports shall be prepared on the activities performed by the Environmental Team of the Contractor as part of their environmental supervision. The Environmental Team of the Contractor will be required over the entire duration of the implementation phase to supervise the proper performance of works in the context of their potential adverse impact on protected natural habitats and protected species, the proper place of conducting works for the protected habitats and species, proper implementation of preventive measures to fauna (trapping, relocation) and all other activities in the field of environmental protection. These experts will be involved in the implementation of selected mitigation and monitoring actions identified in the EMP. The Engineer's approval is required for personal composition of the team of environmental experts may combine at most two specialisations listed above in points a-g. Being involved in the work on other OVFMP contracts or on any other projects cannot limit the availability of the experts for this Contract. Before the commencement of works, the Contractor will present for the Engineer's approval the Quality assurance plan in scope of activities of the team of environmental experts.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
104	Ensuring the team of expert archaeologists  For the entire Contract implementation period, the Contractor will ensure the participation of a team of expert archaeologists.  These experts will be involved in the implementation of selected mitigation measures specified in the EMP.  Depending on the needs, a team of archaeological experts can consist of one or more people with the appropriate professional licenses. The Engineer's approval is required for personal composition of the team of expert archaeologists. Being involved in the work on other OVFMP contracts or on any other projects cannot limit the availability of the experts for this Contract.  Before the commencement of works, the Contractor will present for the Engineer's approval the Quality assurance plan in scope of activities of the team of expert archaeologists.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  Problems occurred with the implementation of the measure. Delays occurred in 4th quarter of 2020 (the first quarter of Contract execution) in the submission to the Engineer of the contractual documentation required at the stage before the commencement of works and resulting from the requirements of the EMP (Quality Assurance Plan for the activities of the team of expert archaeologists). Until the end of the 4th quarter of 2020, the Contractor had supplemented all the required documents, which were approved by the Engineer.
105	Ensuring the team of sapper archaeologists  For the entire Contract implementation period, the Contractor will ensure the participation of a team of sapper supervision.  This team will be involved in the implementation of selected mitigation measures specified in the EMP. Depending on the needs, a team of sapper supervision can consist of one or more people with the appropriate professional licenses. The Engineer's approval is required for personal composition of the team of sapper supervision.  Being involved in the work on other OVFM Project contracts or on any other Contracts cannot limit the availability of the experts for this Contract.  Prior to the commencement of works, the Contractor will submit to the Engineer for approval a Quality Assurance Plan for the sapper supervision team.	IMPLEMENTED Implementation of the measure was started in the 4th quarter of 2020 and was continued until the to end period of execution of works.  Problems occurred with the implementation of the measure. Delays occurred in 4th quarter of 2020 (the first quarter of Contract execution) in the submission to the Engineer of the contractual documentation required at the stage before the commencement of works and resulting from the requirements of the EMP (Quality Assurance Plan for the activities of the team of sapper's supervision experts). Until the end of the 4th quarter of 2020, the Contractor had supplemented all the required documents, which were approved by the Engineer.
106	Discussing the EMP implementation during working meetings and at Site Councils In the Contract implementation period, monthly meetings will be held between representatives of the PIO, Engineer and Contractor to discuss and control the implementation of the mitigation and monitoring measures specified in the EMP. Regardless the above, current requirements and problems relating to EMP implementation will be discussed at all Site Councils.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
107	Reporting the implementation status of the EMP In the Contract implementation period, the Contractor will submit monthly reports to the Engineer on the implementation of the conditions specified in the EMP (in the form of a checklist together with the necessary attachments, including reports on the implementation of environmental supervision). A template of the above-mentioned report (checklist) will be developed by the Contractor and submitted to the Engineer for approval. Depending on the circumstances, the Engineer may request the Contractor to submit additional reports regarding, in particular, emerging critical situations, including accidents, implementation of selected EMP items, etc. In addition, the Contractor is obliged to prepare an initial report, quarterly, ad- hoc, final reports and reports to RDOŚ in Cracow- only to the extent resulting from the decisions obtained at the implementation stage, e.g. derogations, if they result in the need to report the activities in question to the Authorities.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
108	Cleaning works, restoration of the area to the initial state After finishing the construction, areas damaged during construction works should be restored and any temporary site elements should be removed, including site facilities and technical roads and lanes.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2021 and was continued until the completion of works.
109	After completing the construction works, all of the earth surface will be topsoiled and sown with grass in accordance with the measures detailed in item 57 - Restoration of topsoil layer and green areas and tidying up the site after completion of works, and in items 58 – Implementation of replacement planting, and 59 - Caring for grasslands.  During the performance of works and during the operational phase, places sown with grass mixes should be cured of by means of e.g.: twofold mowing of flood embankments during the year, and removal of hard lichens. This measure includes the performance period of construction works, as well as the Defects Notification Period and the Guarantee and Warranty Period.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2021 and was continued until the completion of works.
110	Management, maintenance, repairs of roads  The Contractor is obliged to remove defects/damages to roads constructed under this Contract within the Contract implementation period.  During the operating period, roads and technological lanes should be properly maintained/managed through appropriate winter road maintenance in accordance with the existing weather conditions. Gravel/ground roads - unevenness should be levelled, if necessary.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
111	Obligation to observe ESHS requirements and conditions  The Contractor is obliged to apply and observe all ESHS policies' requirements and conditions (i.e. the ones related to environmental, social and health and safety issues) as determined in the Contract documents and in the ESHS Code of Procedure, and in Implementation Plans and in the Environmental, Social and Health and Safety (ESHS) Risk Management Strategy (as developed by the Contractor in accordance with the Construction Works Agreement), and as results from the legislation valid in Poland (including the Labour Code, the Construction Law, and others).  The ESHS requirements and conditions determined in reference to the Contractor and its personnel in the above-mentioned sources (regardless of the legal cooperation form) are also valid in the scope relevant for a given case for Contractor's subcontractors and their personnel and their subcontractors.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
112	Assurance of safety in case of accidents at work The Contractor is obliged to assure such conditions for implementation of the Contract (including performance conditions) to avoid accidents engaging any people associated with implementation of the Contract (including the staff of e.g.: the Contractor, the Engineer, the Investor, the PCU, subcontractors, suppliers, and others) and third parties. In case an accident happens, the Contractor shall immediately assure proper treatment for injured people, notify relevant services and provide them with access to the site, and secure the place in a way assuring safety to the above-mentioned services and other people, who may be present in the area of the event. Regardless of the above-mentioned actions the Contractor shall immediately inform the Engineer about all accidents and near misses related to implementation of the Contract (both: on site, as well as in any other location), in accordance with binding procedures determined in the Contract	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
113	documents (see also: item no. 119).  Provision of H&S Expert in the Contractor's team The Contractor is obliged to assure a permanent H&S supervision throughout the Contract implementation period, and the supervisor shall take care for observing the H&S rules determined in the Contract documents and in the binding provisions of national law. Members and qualifications of the H&S supervising team need to be in compliance with Polish provisions of the labour law.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period		
114	Educational actions related to H&S rules and regulations The H&S Supervising team will conduct training and implement an awareness enhancement programme for the Contractor's staff in reference to the H&S rules and regulations on site. Those actions shall be implemented for the entire period of the performance of works, at least once per 12 months. They shall take a form of informational, educational and awareness campaigns related to H&S issues in the scope corresponding with the current stage of Contract implementation.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.		
115	Assurance of safety for people in case of sexual harassment and mobbing  The Contractor is obliged to assure such conditions of Contract implementation to avoid cases of sexual harassment or mobbing towards the Contractor's personnel and subcontractors, any other people associated with implementation of the Contract, and any third parties.  If above-mentioned cases of sexual harassment or mobbing occur, the Contractor will undertake measures to immediately stop the above-mentioned behaviour, and subsequently it shall immediately take disciplinary measures determined by the law and internal regulations of the company in relation to perpetrators, and shall provide the victims of such behaviour with any necessary help and support in the scope corresponding with the case.  Regardless of the above-mentioned actions the Contractor shall immediately inform the Engineer about any cases of sexual harassment or mobbing, in accordance with binding procedures determined in the Contract documents (see also: item no. 119).	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.		
116	Educational actions to prevent cases of sexual harassment and/or mobbing  The Contractor will conduct training and implement an awareness enhancement programme for the Contractor's staff in reference to the prevention of cases of sexual harassment and mobbing.  Those actions will be implemented for the entire period of the performance of works, at least once per 12 months.  They shall take a form of informational, educational and awareness campaigns related to sexual harassment and mobbing.  The measures will be conducted by an expert having proper substantive qualifications in that scope, who would remain a member of the Contractor's team.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.		

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
117	Ensuring the appropriate conditions of work and pay for the personnel  The Contractor is obliged to ensure the appropriate conditions of work and pay for the personnel in connection with the implementation of the Contract, fully in accordance with provisions of the labour law binding in Poland (and especially with the Labour Code), including notably:  The Contractor will ensure equal treatment in case of pay for the employees performing the same work, without consideration of sex, sexual orientation, and age;  people employed at the Contract will not be harassed due to sex, sexual orientation and age;  The Contractor may employ only such a juvenile employee who is at least 15 years old, has completed at least eight years of primary school and has presented a medical certificate stating that the work of a given type does not threaten his/her health.  The Contractor, in accordance with the possibilities and conditions and the Polish provisions of the Labour Code, satisfies the living and social needs of employees in the workplace.  The Contractor is obliged to facilitate the improvement of professional qualifications of employees.  Educational actions related to the filing of claims	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
118	referring to the conditions of work and pay The Contractor will inform all people employed in connection with the implementation of the Contract about a possibility of providing claims related to the conditions of work and pay, and will develop an information leaflet with necessary data on provision of claims and applications, in which it would assure about e.g. the absence of repercussion for a person notifying about an issue. Contents of the above-mentioned leaflet will be agreed with the Engineer.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.
119	Preparation and implementation of procedures related to the regular provision of information on ESHS issues  In the period not longer than 30 days from the commencement date of the Contract, the Engineer will create and provide the Contractor with a set of procedures related to the regular provision of information related to the following:  - exceptional hazards (i.e. emergency and crisis situations discussed in section 5.12 of the EMP);  - accidents and near misses;  - cases of sexual harassment and mobbing;  - claims of the personnel related to the conditions of work and pay.  The Contractor will immediately inform the Engineer about any issues in that scope, in accordance with the conditions determined under the valid contractual procedures.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period		
120	Guidelines on HIV – AIDS prevention  The Contractor shall, via an approved service provider, implement a program to raise awareness of HIV-AIDS type diseases (including appropriate training) and will take all other measures to reduce the risk of HIV spreading among the Contractor's personnel and the local community. These activities should be performed in accordance with the detailed guidelines set out in the Bidding Documents.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.		
121	Environmental protection within the works performance area  The Contractor is obliged to provide environmental protection within the area of performing the works, and especially the protection of the land surface, greenery, natural lay of land, and water conditions.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.		
122	Limitation in using and transforming the environmental elements  When conducting construction works, it is allowed to use and transform the natural components only to the extent in which it is necessary due to implementation of the removal and demolition of structures and infrastructure of garden allotments.	IMPLEMENTED  No problems were identified with the implementation of the measure. The implementation of the measure was started in the 4th quarter of 2020 and was continued for the entire period of execution of works.		
123	Removal of damages  If the protection of natural components is not possible, the Contractor is obliged to repair the caused damages.	NOT APPLICABLE  No need to undertake measures was determined during the execution of works.		

Item	Mitigation measures acc. to Appendix 1 of EMP	Implementation status in reporting period
124	Assurance of proper living conditions for feral cats on the area of the "Semafor" Family Garden Allotments  Not later than within 14 days from the day of commencing the construction works, the Contractor will make one-off purchase and will deliver the following to the Management Board's office of "Semafor" Family Garden Allotments:  1. free-standing insulated kennels for feral cats, in the amount of 12 items, with the following technical parameters:  a. made of dry, ground elevation boards with a thickness of about 2 cm;  b. walls and roof insulated with 2 cm thick styrofoam;  c. removable roof, covered with roofing paper;  d. kennel on feet;  e. external dimensions of a kennel:  • width of approx. 50-60 cm  • depth of approx. 40 cm.  • height of approx. 40-50 cm.  2. dry feed for cats in the amount of 100 kg with the following properties:  a. high content of protein of approx. 75% of meat,  b. made of natural ingredients only,  c. without grain,  d. without artificial dye.  The delivery of the above to the Management Board's office of "Semafor" Family Garden Allotments will be confirmed by a delivery/acceptance protocol signed by the Contractor and the Management Board of "Semafor" Family Garden Allotments.	IMPLEMENTED  No problems were identified with the implementation of the measure. Implementation of the measure was started in the 4th quarter of 2020 and completed in the same period.

signature:
place and date: Cracow,
approved by: Barbara Chammas
signature:
place and date: Cracow,

Prepared by: Rafał Salach

## Part II. Checklist for implementation of the monitoring measures listed in Appendix 2 to the EMP for contract 3D.2.1.

#### Explanations for the checklist presented in Part II

The measures listed in Appendix 2 to the EMP for Contract 3D.2/1 are grouped in 20 thematic categories (marked with letters A.-T. and described on the checklists with ITALICISED CAPITAL LETTERS):

Cat.	Category Name	Item on the list
A-T)	Monitoring of implementation of the mitigation measures in Appendix 2 to the EMP	items no. 1-124

The numbers in the column "Item" – from 1) to 124) – stand for the numbers of relevant monitoring measures, according to the numbering in Appendix 2 of the EMP.

The following is given for each of monitoring measures:

- description of the measure
   (marked with *bold and italicised font* together with number in the column "Item");
- the content of the measure presented in the wording of Appendix 2 of the EMP (together with detailed implementation guidelines of a given monitoring measure given in Appendix 2 of the EMP)
- description of the implementation status of the measure in the reporting period.

Table 2. Checklist for implementation of the monitoring measures listed in Appendix 2 to the EMP for Contract 3D.2/1

Item	Monitoring measure according to Appendix 2 to the EMP	Implementation status in reporting period
(1)	(2)	(3)
A) – T) I	MONITORING OF IMPLEMENTATION OF THE MEASURES IN AP	PENDIX 2 TO THE EMP
	Monitoring of the implementation of mitigation measures	
	from items no. 1-124 in Appendix 1 to EMP.	
	Detailed guidelines for the implementation of the above-	
	mentioned measure, given in item 1-124 of Appendix 2 of	
	the EMP:	
	Subject of monitoring	
	In accordance with the descriptions given in item 1-124 in	IMPLEMENTED
	Appendix 2 of the EMP.	Implementation of the measure was started in the
	Place of monitoring	4th guarter of 2020 and was conducted until the end
1-124)	In accordance with the descriptions given in item 1-124 in	of the reporting period. No problems were identified
	Appendix 2 of the EMP.	with the implementation of the measures.
	Method of monitoring	
	In accordance with the descriptions given in item 1-124 in	
	Appendix 2 of the EMP	
	Period and frequency of monitoring	
	In accordance with the descriptions given in item 1-124 in	
	Appendix 2 of the EMP	
	Monitoring unit	
	Investor, Engineer and Contractor (in accordance with the	
	descriptions given in item 1-124 in Appendix 2 of the EMP).	

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place and date: Cracow,
approved by: Barbara Chammas
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nlace and date: Cracow

# Part III. Quantitative list of implementation of the measures listed in Appendix 1 and 2 to the EMP for contract 3D.2/.1

The table below presents a quantitative list of the implementation of the measures listed in Appendix 1 and 2 of the Environmental Protection Plant (EMP) for the contract 3D.2/1 within the reporting period.

Category	Mitigation measures (items 1-124 in Appendix 1 to EMP)		Monitoring measures (items 1-124 in Appendix 2 to EMP)	
	N	Item No.	N	Item No.
The measures implemented and completed in the reporting period	103	nos. 1-6, 8-11, 13-20, 23- 36, 38, 41-45, 47-48, 51- 54, 57-58, 60-62, 64-76, 79-96, 99, 101-109, 111- 122, 124	124	items no. 1-124
The measures not implemented in the reporting period (considered as not related to the reporting period  (there was no need to implement them))	21	nos. 7, 12, 21-22, 37, 39- 40, 46, 49-50, 55-56, 59, 63, 77-78, 97-98, 100, 110, 123	0	no. –