Appendix 2 - Plan of monitoring measures

In this Appendix to the Environmental Management Plan for the Odra - Vistula Flood Management Project, *Works Contract 1B.7 - WFS Widawa – the rebuilding of the flood management system of the communes and municipalities Czernica, Długołeka, Wisznia Mała and Wrocław*, monitoring measures are presented referring to the implementation of the mitigation measures indicated in the Appendix No. 1 to EMP and measures of nature monitoring. The data included in the tables below constitutes summary of the monitoring measures, which in the course of the Works contract will be performed by the Contractor, Engineer and Employer.

Explanations for the table in Appendix No. 2 to EMP:

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

- unless otherwise stated in a particular case, the term ***Task implementation period*** means the duration of execution of any preparatory works, essential works (including the Permanent Works and Temporary Works), and any works related to the removal of defects and faults or execution of the unfinished works specified in the Takeover Certificate or revealed in the Defects Notification Period;

- unless otherwise stated in a particular case, the term ***Contractor's Team*** in column Responsible entity means personally the EMP Coordinator in the Contractor's team (referred to in item 89 in Appendix No. 1 to EMP), cooperating with the Site Manager and the rest of the Contractor's team (including, in particular, a team of naturalists and a team of archaeological experts, sapper supervision and safety supervision);

- unless otherwise stated in a particular case, the term ***Engineer's Team*** in column Responsible entity means personally the Environmental management expert in the Contract Engineer's team, cooperating with relevant Supervising Inspectors and with the rest of the Engineer's team.

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
01 - REQUIREMENTS RELATED TO LOCALISATION AND LIMITATION OF AREA OF TEMPORARY OCCUPATION						
1.	Land surface and landscape protection	***Limitation of land occupation and of land surface transformation*** The following Principles shall be applied in order to limit area occupation and land surface transformation during the Task implementation: a) area occupation as well as land surface transformation during any types of works conducted in connection with Task implementation shall be limited to the necessary minimum, b) in areas adjacent to the Task implementation area (permanently and temporarily occupied areas), occupy land only in the area of the existing traffic systems.	Task implementation area	Verification / approval of documentation of the Contractor including of land occupation. Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
2.	Land surface and landscape protection	***Obligation to prepare site back-up facilities*** Before starting the construction works, it is necessary to provide site back-up facilities, technological roads and yards. Site back-up facilities are to serve for storage of building materials, garaging, refuelling and current repairs of vehicles, machinery and devices, and	Task implementation area	Verification / approval of the Contractor's documentation covering the preparation of back-up facilities, technological routes and sites. Visual monitoring, photo documentation.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		as location of social facilities and waste containers.		Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team
3.	General conditions concerning nature protection	***Preservation of natural assets beyond the places required to be occupied for the purpose of Task execution*** When agreeing the location of technological routes and sites, back-up facilities and other places of temporary occupation: a) ensure the preservation of protected natural habitats, positions and habitats of protected species, b) preservation of all the tree- and shrub-based vegetation occurring beyond the areas required to be occupied in reference to the modernisation of the existing embankments and construction of new ones, c) a precise location of technological routes and sites, back-up facilities and other places of temporary occupation shall be agreed in consultation with experts of the Contractor's environmental team, so as not to worsen the ecological status of natural objects located within the Task implementation area.	Task implementation area	Verification / approval of the Contractor's documentation covering the preparation of technological routes and sites. Visual monitoring, photo documentation.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team
4.	General conditions concerning nature protection	***Reducing the area of damage within natural habitats and habitats of species.*** Reduce as far as possible the area of damage as a result of building works conducted within	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		valuable natural habitats and habitats of species. The results of one-time environmental stocktaking referred to in item 13 of Appendix No. 1 to EMP will be taken into account when fulfilling this condition.		Visual monitoring, photo documentation. Verification /approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
5.	General conditions concerning nature protection	***Conditions for location of technological routes, back-up facilities, sites*** Set a precise location of technological routes and sites shall be agreed in consultation with experts of the Contractor's environmental team, so as not to worsen the ecological status of natural objects located within the implementation.	Task implementation area	Verification / approval of the Contractor's documentation covering the preparation of technological routes and sites. Visual monitoring, photo documentation.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
02 - REQUIREMENTS CONCERNING THE TRAFFIC SYSTEM OF THE TASK IMPLEMENTATION AREA						
6.	Human health and safety protection	***General conditions connected with access to the work area*** Access to the construction site and speed limits near the construction site least disturbing for the people living nearby and safe shall be ensured in the phase of Task implementation (based on the existing system of roads).	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation concerning the traffic system of the Task implementation area.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification /approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
7.	Human health and safety protection Protection of tangible assets Land protection	***Use of access roads to the Task implementation area along with their surroundings*** In the scope of the use of access roads to the Task implementation area, the following conditions apply: a) the Contractor will provide traffic arrangement design for the duration of the Works, in accordance with the provisions of Technical Specifications and requirements of the road management authorities regarding transport and conditions of roads use, b) the Contractor is obliged to agree with the road management authority of the traffic arrangement and works security plan. The Contractor is obliged to organise traffic in accordance with the agreed plans (marking and securing the Site and marking of detours and recommended road signage related to change of traffic organisation, etc.), c) prior to commencement of works the Contractor will present to the Engineer for approval, traffic arrangement and works security plans as well as the Programme agreed with the Road management authorities. Depending on the needs and works progress, the traffic arrangement plans shall be updated by the Contractor on on-going basis (the updates made must be agreed with the Road management authorities), d) according to valid laws and agreements with Road management authorities, access routes shall be marked for the roads used by the Contractor. This marking shall be regularly controlled by the Contractor, in the case of	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation concerning the traffic system of the Task implementation area. Control of progress of works over the arrangements and over compliance with EMP conditions.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		destruction or theft of marking the Contractor shall promptly rebuild or supplement it, e) hardened surfaces within the site back-up facilities used for vehicle transportation of building materials should be maintained in good technical condition and clean, f) the Contractor shall be responsible for any damage to the structures, buildings, roads, drainage ditches, culverts, water supply and gas pipe lines, power poles and power lines, cables, land survey control network and any type of services as well as other types of facilities such as vertical and horizontal signs, navigation signs, information boards, cultural assets etc., caused by the Contractor or his Subcontractors during execution of works. The Contractor is also responsible for restoring the flow capacity of drainage ditches and drainage services in the area of conducted works and transport roads, in case of damage caused by execution of works and transport related to works implementation, g) the Contractor is required to prepare the photographic documentation of the whole Task implementation area and access roads, with particular emphasis on the technical condition of the roads and buildings located near the roads for transport of construction materials, h) prior to the works, the Contractor shall carry out the site inspections in the presence of Road Authorities, which shall be followed by protocols on the condition of access roads to the Task implementation area. On this basis, the Contractor shall be obliged to restore the technical condition of the roads from before the Task implementation period, i) the Contractor shall immediately repair, at its own expense, all damages arisen and – when necessary – shall carry out other works ordered by the Engineer, j) the Contractor shall strictly adhere to		Visual monitoring, photo documentation. Verification /approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
03 - ORGANISATION OF THE SITE, BACK-UP FACILITIES, WAREHOUSES AND STORAGE YARDS						
8.	General conditions concerning nature protection	***Prevention of animal access to the work areas*** Back-up facilities, technological roads, places of storage of construction materials, places where works are performed, etc. area situated in the vicinity of places of occurrence and routes of seasonal migration of amphibians shall be secured against access of amphibians, reptiles, small mammals, by fencing off with a tight fence with a height of not less than 0.5 m. The type, detailed location of fences and their installation shall be agreed with an expert herpetologist of the Contractor's environmental team.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team
9.	General conditions concerning nature protection	***Repair of possible damages to fencing of works areas*** Any damages existing in the area of the fencing described in item 8 of Appendix No. 1 to EMP shall be regularly removed. Such measures will be conducted with participation of an expert herpetologist of the Contractor's environmental team.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
10.	General conditions concerning nature protection	***Reduction of accidental animal death*** The following rules shall be introduced to reduce accidental animal death within the Task implementation area: a) the application of methods securing water chambers, trenches, collectors etc. prior to the confinement of minor mammals, amphibians and reptiles within them. These elements should be designed to allow individual animals to get out of these structures in case animals enter the area of such structures, b) in case where the animals trapped in the above-mentioned structures cannot get out themselves, they shall be safely removed and transported beyond the site of works, c) animals shall be transported under the supervision of an expert herpetologist or an expert theriologist, of the Contractor's environmental team, having experience in procedures in such cases.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
11.	Land surface and landscape protection	***Equipping the areas being potential places of pollution emission with sorbents*** Near places of temporary occupation such as: • back-up facilities (used as places of maintenance of vehicles, machinery and devices, where they are parked, fuelled, undergo technical maintenance, etc.), • service roads, • storage yards, a stand with sorbent shall be provided enabling fast elimination of results of any leaks of fuel and oil derivatives. In particular, in the vicinity of machine garaging and filling there should be a stand with sorbent.	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation concerning the organisation of work areas, back-up facilities, technological routes, car parks, etc. of areas used during Task implementation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
12.	Surface water protection	***Site back-up facilities protection against the spreading of pollutants*** Site back-up facilities shall be located on hardened area secured with a non-permeable layer against the spreading of pollutants.	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation concerning the organisation of back-up facilities.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
04 – REQUIREMENTS FOR SECURING THE PROTECTED NATURAL RESOURCES						
13.	General conditions concerning nature protection	***Execution of one-time environmental stocktaking*** Before the works begin, a one-time environmental stocktaking shall be carried out (prepared by the Contractor's environmental team referred to in item 87 Appendix no. 1 to EMP) of the areas planned for temporary and permanent occupation, aimed at: a) determining the current distribution of patches of natural habitats listed in Appendix No. I of the Habitat Directive (Council Directive 92/43/EEC), sites of protected species of plants, fungi and animals, b) determining the sites of potential occurrence of such species, c) the Contractor shall deliver the results of one-time environmental stocktaking to the Engineer within 21 days from its completion.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Control of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation – before the works beginning, up to date, not less than once a month.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation – before the works beginning, up to date, not less than once a month.	Engineer's team
14.	General conditions concerning nature protection	***Marking the boundaries of natural habitats*** Prior to the commencement of works, identify and mark in field (in a manner visible for employees performing and supervising the	Task implementation area	Visual monitoring, photo documentation. Control of participation of the required expert.	The whole period of Task implementation, marking control up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		works) the boundaries of patches of the following natural habitats: • oak-elm-ash riparian forests *Ficario-Ulmetum* (code 91F0) - in vicinity of the sections of embankments: F1-G, G-G1, G1-H, D-D1, E2-E1; • alluvial meadows of river valleys (*Cnidion dubii*) (code 6440) - in vicinity of the sections of embankments: K-K1, K1-L. The sections of embankments shall be adopted according to the course of embankment sections presented in the *Environmental impact report* and in Appendix No. 6a to EMP. Such measures will be conducted with participation of an expert phytosociologist of the Contractor's environmental team.		Visual monitoring, photo documentation. Control of participation of the required expert. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month	Engineer's team
15.	General conditions concerning nature protection	***Securing the patches of natural habitats*** The patches of natural habitats 91F0, 6440 situated in vicinity of the sections of embankments covered by works shall be effectively (e.g. by fencing off with a fence built of wooden piles and forest net) secured against destruction, contamination, traffic of machines and vehicles and free access of persons, the presence of which in this area is connected with the performed works. The protection condition of patches shall be constantly supervised and any damages shall be removed. Such measures will be conducted with participation of an expert phytosociologist of the Contractor's environmental team.	Task implementation area	Visual monitoring, photo documentation. Control of participation of the required expert.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Control of participation of the required expert. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
16.	General conditions concerning nature protection	***Protection of patches of natural habitats and species habitats adjacent to work areas*** The Contractor shall be obliged to modify the technology applied for construction / modernisation of the embankments consisting in conducting works at the opposite side to natural objects (patches of natural habitats and habitats of protected species), or alternatively - conduct works at the front or crest of the embankment.	Task implementation area	Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team
				Visual monitoring, photo documentation. Verification / approval of documentation concerning the technology of works and organisation of works.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team
17.	General conditions concerning nature protection	***Protection of bats within the bridge along Rzeczna Street*** Directly prior to commencement of works relating to flow improvement under the bridge along Rzeczna Street, inspect the bridge structure for presence of bats with participation of an expert chiropterologist of the Contractor's environmental team. Continue further works in consultation with a chiropterologist of the Contractor's environmental team, and if presence of bats is found, according to the chiropterologist's guidelines.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
18.	General conditions concerning nature protection	***Obtaining necessary departures from prohibitions in relation to protected species*** The Contractor (if necessary - in proportion to the results of the conducted environmental stocktaking referred to in item 13 of Appendix No. 1 to EMP) shall obtain all necessary permits for derogations from prohibitions in relation to the protected species of plants, fungi and animals, under the Act on environmental protection.	Task implementation area	Control of participation and arrangements of the required experts. Control of progress in obtaining and handing over the required administrative decisions and their implementation reports to the Engineer.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team
19.	General conditions concerning nature protection	***Relocation of protected species outside work areas*** If it is necessary to destroy or relocate protected species outside work areas, the Contractor is obliged to: a) plan such actions and obtain required permission (administrative decisions issued under the Act on environmental protection) to conduct them, b) effectively conduct such actions, c) implement other activities required (e.g. drawing-up and submitting reports to the body issuing relevant permission (administrative decision)).	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Control of progress in obtaining and handing over the required administrative decisions.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
20.	General conditions concerning nature protection	***Adopting the appropriate schedule for execution of works*** The Contractor should provide the schedule for execution of works so that the dates and location of respective stages of construction works are in compliance with requirements of the environmental decision and EMP and so that they do not affect species under protection which are found on the Task implementation area and in its vicinity.	Task implementation area	Visual monitoring, photo documentation. Verification of works schedules.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
21.	General conditions concerning nature protection	***Dates of carrying out works within beds of watercourses*** All works carried out within watercourses shall be undertaken beyond the period of 15 April to 30 June.	Beds of watercourses: Młynówka Kiełczowska, Mrówka, Widawa within the boundaries of the Task implementation area	Visual monitoring, photo documentation. Verification of the Contractors' works schedules.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
22.	General conditions concerning nature protection	***Principles of carrying out works within beds of watercourses*** Works within water beds and banks of watercourses shall be carried out according to the principle of progress of works from the headwater downstream.	Beds of watercourses: Młynówka Kiełczowska, Mrówka, Widawa within the boundaries of the Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
23.	General conditions concerning nature protection	***Protection of habitats of amphibians adjacent to work areas*** Within the mid-embankment of Widawa River not to dig up local depressions with a surplus of ground caused during the execution of works.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
24.	General conditions concerning nature protection	***Reduction of accidental death of amphibians*** Any occurrence of standing water in the Task implementation area which could constitute places where amphibians settle shall be regularly eliminated. The standing water shall be eliminated in consultation with and under the supervision of an expert herpetologist of the Contractor's environmental team.	Task implementation area	Visual monitoring, photo documentation. Verification of works schedules. Control of participation and arrangements of the required expert.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation and arrangements of the required expert.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
25.	General conditions concerning nature protection	***Reduction of accidental animal death*** It should be reduced (as far as possible) the	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		minimum depth of excavations / trenches and shorten (as far as possible) the duration of works.		Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
26.	General conditions concerning nature protection	***Restoration of vegetation within the balance reservoir*** After finishing earthworks, within the area of the balance reservoir on the Mrówka stream, plant the littoral of the reservoir with water and above-water plants, in particular to create a band of rushes. The works shall be carried out in consultation with an expert phytosociologist, the Contractor's environmental team.	The balance reservoir on the Mrówka stream	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
27.	General conditions concerning nature protection	***Guidelines for construction of embankments related to protection of valuable species of beetles in natural objects 7 and 20*** Within the area of natural objects no. 7 "Riparian forest between Wilczyce and Kiełczów" and no. 20 - "Oak alley for extension of Wierzbowa Street in Kiełczówek" (and indicated in Appendix No. 7 to EMP), specified in	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		the environmental impact report, design and realize the course of the task elements and works in such a way as to preserve all the trees being a habitat of Hermit Beetle *Osmoderma eremita* and Great Capricorn *Cerambyx cerdo*. If the species of above habitats cannot be preserved for technical reasons, cutting and principles of managing the cut trees shall be conducted according to an expert entomologist's guidelines of the Contractor's environmental team.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
28.	General conditions concerning nature protection	***Guidelines for construction of embankments related to protection of valuable species of beetles in the natural object 28*** Within the area of the natural object no. 28 specified in the environmental impact report - "Oaks between Wilczyce and Kiełczów" (and indicated in Appendix No. 7 to EMP), design the course of the investment elements and works in such a way as to preserve sessile oaks settled by Capricorn beetle, *Cerambyx cerdo*.	Task implementation area	Visual monitoring, photo documentation. Internal verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
29.	General conditions concerning nature protection	***Ensuring the migration conditions of animals within bridge structures*** For the performance of works concerning the flow improvement of the bridges, apply solutions which ensure the ecological	Bridges on Widawa along Wilczycka Street and Rzeczna Street	Visual monitoring, photo documentation. Control of the Contractors documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		functionality for animals moving through the valley of the Widawa river, e.g. through: a) maintaining an appropriate large clearance of bridges, b) dry land at river-bank areas above average water levels, c) natural character of river-bank areas under the bridges (e.g. by presence of herbaceous plants and bushes).		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
30.	General conditions concerning nature protection	***Guidelines for protection of natural habitats and habitats of species within the "new" mid-embankment of Widawa River*** Do not design drainage systems and new melioration ditches in the area of the "new" mid-embankment within the limits and distance of less than 100 metres from wastelands, permanent grasslands, groups of rushes, water reservoirs, oxbow lakes, bushes, tree stands and forests.	Task implementation area	Monitoring and coordination of investment activities remaining in the competence of PGW WP RZGW in Wrocław.	Regularly in the entire Task implementation period and after its completion.	Contractor's team / Investor
31.	General conditions concerning nature protection	***Execution principles of anti-filtering membrane*** In the places where an anti-filtering membrane and a sealing screen are used within the area of flood protection embankments, anchor the anti-filtering membrane and the sealing screen in the underground part in such a way that they do not reach the layers of non-permeable grounds.	Task implementation area	Quality monitoring of the executed membrane. Internal control of the Contractor's documents for the technology applied for execution of an anti-filtering membrane and a sealing screen.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
				Quality monitoring of the executed membrane. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
32.	General conditions concerning nature protection	***Ensuing the appropriate damming level on the Kiełczówek weir*** The agreed damming level should not be increased after completion of works within the Kiełczówek weir. The maximum damming level shall not exceed the elevation of 119.40 m a.s.l.	Task implementation area	Visual monitoring using control and measuring instruments on the weir	After completion of works within the Kiełczówek weir. Controlling the agreed damming level four times a year.	Investor
33.	General conditions concerning nature protection	***Considering the conditions resulting from the existence of protected areas*** During the construction works, the Contractor shall observe standards, prohibitions and recommendations as well as respect limitations arising from the existence of areas and facilities formed under the Environment Protection Act.	Task implementation area	Visual monitoring, photo documentation. Verification of works schedules.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
05 – TOPSOIL HANDLING PRINCIPLES AND LAND RECLAMATION						
34.	Topsoil handling principles	***Removing and securing the topsoil prior to the commencement of works*** Prior to undertaking substantial levelling and earth works the top humus soil layer shall be removed (to the depth of 30 cm on average) and stored in the vicinity of areas of performing works, in separate piles secured against drying and mixing with native rock. Location of topsoil heaps should be earlier agreed in advance with the team of environmental experts referred to in item 87 Appendix no. 1 of EMP and presented in prior for the Engineer's approval.	Task implementation area	Visual monitoring, photo documentation. Internal verification / approval of the Contractor's documentation concerning humus management. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
35.	Topsoil handling principles	***Principles of restoring the topsoil layer*** Upon completion of earth works - use the taken-off hummus for forming slopes and crest of the embankments intended for turf assessment. At the width of 5-10 metres, on the slopes and crest of the embankment, along the embankment, at one side or both sides of the embankment - spread and level the previously	Task implementation area	Visual monitoring, photo documentation. Internal verification / approval of reclamation documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		taken-off humus. Within the places of back-up facilities, technological sites and roads - additionally execute all the tillage works: plating with discs, harrowing, fertilising and seeding grass mixtures in accordance with meadow habitats located closest to the site of re-cultivation. A composition of the grass mix will be agreed on in prior with an expert phytosociologist of the Contractor's environmental team and the Engineer's approval will be obtained in prior.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
36.	Principles of land reclamation	***Land reclamation after the completion of works*** After finishing works, the area shall be ordered and procedures supporting the restoration of green areas shall be performed in the places indicated by a phytosociologist of the Contractor's environmental team, including sowing and planting using native species in accordance with habitat conditions. In the places where plants were sown and planted, ensure proper maintenance (e.g. maintenance mowing) of the restored areas until the end of the Defects Notification Period. Before starting to perform the conditions defined in this item of EMP, a *Quality Assurance Plan* for the above-mentioned works will be presented for the Engineer's approval.	Task implementation area	Visual monitoring, photo documentation. Internal verification / approval of the Contractor's documentation concerning reclamation of places of temporary occupation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
06 - REQUIREMENTS FOR FELLING AND PROTECTING TREES AND SHRUBS						
37.	General conditions concerning nature protection	***Conditions and permitted dates for felling trees and shrubs*** Limit the felling of trees and shrubs to the ones colliding with investment implementation. Tree and shrubs felling in the period of 15 March to 15 August to be performed under the supervision of an expert ornithologist of the Contractor's environmental team, who, directly before performing it, will inspect trees for presence of bird nests, and if such are found - will indicate the permitted felling performance time. The above-mentioned supervision in the remaining period (between 16 August and 14 March) will be carried out in the periods and locations proposed in advance by the Contractor's environmental team and accepted by the Engineer.	Task implementation area	Visual monitoring, photo documentation. Verification of works schedules. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification of works schedules handed over from the Contractor to the Engineer. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
38.	General conditions concerning nature protection	***Reducing tree clearance within the patches of breeding habitats*** When designating the trees planned for cutting, maintain the possibly largest area of the natural habitat of oak-elm-ash riparian forests *Ficario-Ulmetum* (code 91F0).	Task implementation area	Visual monitoring, photo documentation. Verification / approval of the Contractor's documentation concerning tree and bush cutting.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
39.	General conditions concerning nature protection	***Inspection for presence of protected species of beetles and bats*** In case of an intention of felling of trees with their breast height over 50 cm, directly prior to the felling, the following should be performed with the participation of specialists: an entomologist of the Contractor's environmental team - a control of the occupancy of these trees by protected species of beetles, such as: Great Capricorn Beetle *Cerambyx cerdo*, Hermit Beetle *Osmoderma eremita*, a chiropterologist of the Contractor's environmental team - a control of the presence of bats.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
40.	General conditions concerning nature protection	***Conditions justifying the felling of trees occupied by valuable species of beetles*** In cases of statement of the presence of beetles (larval or adult forms), the permission for cutting the occupied tree can only be conditioned by technical or technological reasons. Prior to felling a tree occupied by protected species of beetles, the Contractor shall obtain the necessary administrative decision, issued under the Act on environmental protection, for derogation from prohibitions regarding protected species.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Control of progress in preparation of relevant documents and applications for obtaining administrative decisions.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation.		

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		Then, the Contractor will perform cutting and any other activities imposed by the administrative decision issued under the Act on nature protection.		Verification / approval of documentation handed over from the Contractor to the Engineer. Control of progress in obtaining the required administrative decisions. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Engineer's team
41.	General conditions concerning nature protection	***Rules of procedure for felling the trees occupied by species of bat*** In cases of statement of the presence of bats in trees to be felled, temporarily suspend felling and implement recommendations of an expert chiropterologist of the Contractor's environmental team, which are adequate to the current atmospheric situation and to the identified the species of bats.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
42.	General conditions concerning nature and landscape protection	***Protection of trees not intended for felling*** Within the whole area of Task implementation, secure all the trees and shrubs designated to be	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		left, including the ones being habitats for Great Capricorn and Hermit Beetle, against accidental damage by using the following methods: • make tree-trunk protection (e.g. made of planks) fully around tree trunks up to the level of 1.5 m at minimum, • make shields around shrubs (e.g. made of planks) up to the level of 1.0 m at minimum, • make dig-outs / trenches at a distance of not less than 2 m from tree trunks, • do not store construction materials or solid / liquid waste which can alter the chemical characteristics of soil (e.g. salts, oils, fuels), or soil masses within the projection of tree crests, • execute earth works manually around skeletal roots. It is unacceptable to undercut skeletal roots, • in the period of hot weather, maximally reduce the time of exposure of roots to desiccation, while in the period of cost weather (frost) - to freezing, • make dig-outs / trenches, conducted within the root systems of trees and shrubs, manually, if necessary, use drilling or jacking methods.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
43.	General conditions concerning nature protection	***Taking appropriate measures in case of damage to tree*** In the event of damage to trees, the necessary maintenance measures to be introduced	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		immediately under the supervision of an expert phytosociologist/botanist from the Contractor's environmental team to limit effects of the damage.		Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
07 - REQUIREMENTS CONCERNING WASTE MANAGEMENT						
44.	Developing the Waste management programme	***Developing the Waste management programme*** Within 42 days of the date of commencing works, the Contractor shall prepare and submit for the Engineer's approval the Waste Management Programme, connected with Contract performance, specifying management method for waste generated during works, considering, among others, guidelines of waste handling, included in Appendix No. 1 to EMP, items 45-49.	Task implementation area	Control of progress in developing the Waste management programme and its compliance with EMP.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
45.	Protection of water and soil	***Storage of hazardous substances and materials*** Hazardous waste should be categorised and stored in designated containers placed at hardened and protected areas secured against access of third parties until their transfer to entities having the appropriate permission for their disposal. Ensure the regular collection of such type of wastes by operators with	Task implementation area	Visual monitoring, photo documentation. Internal verification / approval of the documentation related to transfer of wastes to entities having the appropriate permission for their neutralisation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		appropriate authorisation for their further management or neutralisation.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
46.	Protection of water and soil	***Waste management principles*** Waste generated during the Task implementation shall be managed according to the following rules: a) collect and store wastes only in dedicated places, the location of which is agreed in prior by the Contractor with the Engineer, b) categorised and stored in leak-tight containers or at places being enclosed and adapted for this purpose, under conditions which prevent dusting and dispelling light fractions, and preventing their negative effects on the environment, c) ensure their gradual acceptance by operators with appropriate authorisation for their further development or neutralisation, d) waste management must be carried out in accordance with the Act of 14th December 2012 on waste and the waste management programme mentioned in item 44 Appendix No. 1 to EMP.	Task implementation area	Visual monitoring, photo documentation. Internal verification / approval of the documentation related to transfer of wastes to entities having the appropriate permission for their neutralisation. Verification of documentation handed over from the Contractor to the Engineer in scope of waste management.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of compliance of the conducted waste management with the *Waste management programme*.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
47.	Rules of testing and procedure for sediments from beds of watercourses	***Determination of the quality of sediments in beds of watercourses*** Prior to the construction works in the places of the planned removal of sediments and works in the beds of watercourses, the Contractor shall carry out control tests and define the quality of sediments in accordance with applicable regulations (pursuant to the Act on waste of 14 December 2012 and relevant executive acts). The aim of the tests is to: ● determine the possibilities of managing the acquired land and sediments within the boundaries of the construction site, in accordance with applicable regulations, and ● establish an acceptable method of dealing with the land and sediments not usable within the construction site boundaries. The tests should be performed in accordance with current regulations, including the Waste Act, Environmental Protection Law and implementing acts to the above laws. The tests should be carried out by an accredited laboratory, approved by the Engineer. Before starting the tests, the Contractor shall submit the methodology of planned tests to the Engineer for approval.	Beds of watercourses: Młynówka Kiełczowska, Mrówka, Widawa within the boundaries of the Task implementation area	Control of progress of works over the said tests and over compliance with EMP conditions. Control of handing over documents to the Engineer.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
48.	Rules of testing and procedure for sediments from beds of watercourses	***Management of soils coming from the construction site*** Sediments from watercourse riverbeds should be used at the construction site in the first place. The remaining excess land should be used in accordance with the applicable regulations and the design documentation. The procedure for the waste land should be presented in the *Plan of waste management*, developed by the Contractor and submitted to the Engineer for approval before the commencement of works (according to item 44 of Appendix to EMP).	Beds of watercourses: Młynówka Kiełczowska, Mrówka, Widawa within the boundaries of the Task implementation area	Visual monitoring, photo documentation. Verification / approval of the documentation related to transfer of wastes to entities having the appropriate permission for their neutralisation, control of documents related to land development within the construction site.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
49.	Protection of water and soil	***Preventing the creation of illegal waste dumps*** Prior to the commencement of works, the Contractor shall conduct a site inspection the area of task implementation in terms of illegal waste dumps. During the execution of the Task, the Contractor shall secure the Task implementation area against creation of such waste dumps.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
50.	General waste handling rules	***Handling of sewage*** In case where it is not possible to discharge social and domestic sewage to the existing sanitary sewerage system, the sewage must be collected in leak-proof, drain-less tanks and ensure that they are regularly collected by authorised bodies.	Task implementation area	Visual monitoring, photo documentation. Verification / approval of the documentation related to transfer of wastes to entities having the appropriate permission for their neutralisation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
51.	Protection of water and soil	***Ensuring appropriate hygienic conditions within work areas*** It is necessary to equip all construction sites with a required number of portable toilets and provide training to all the employees with regard to maintaining appropriate hygienic conditions within the area of the construction site and its direct surrounding. The Contractor's workers should meet their physiological needs in dedicated places.	Task implementation area	Visual monitoring, photo documentation. Control of the correctness and dates of performing relevant training.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
08 – REQUIREMENTS CONCERNING PREVENTION OF PROLIFERATION AND ELIMINATION OF INVASIVE SPECIES OF PLANTS						
52.	Protection of natural resources	***Inspection of sections of embankments for presence of invasive species of plants*** Prior to the start of the growing season, the following sections of embankments shall be inspected: K-K1, K1-L, L-M (specified according to the *Environmental impact report* and presented in Appendix No. 6a to EMP), for presence of invasive positions of species of plants, with special consideration to Sosnowsky's hogweed *Heracleum sosnovskyi* and *Echinocystis lobata*.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team
53.	Protection of natural resources	***Necessary elimination of positions of invasive species of plants*** In the positions where invasive plants were found, mentioned in item 52 of Appendix No. 1 to EMP (within the limits of embankments: K-K1, K1-L, L-M), and within the area of other positions possibly discovered in the Task implementation area, in the Task implementation period and over the next two growing seasons after their end, all individuals of plants shall be removed belonging to external invasive species, especially Sosnowsky's hogweed *Heracleum sosnovskyi* and *Echinocystis lobata*, until they disappear and are replaced by local plants.	Task implementation area	Visual monitoring, photo documentation. Internal control of the Contractor's documentation concerning the methods of eliminating invasive species of plants.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
54.	General waste handling rules	***Prevention of proliferation and elimination of positions of invasive species of plants*** The elimination of positions of invasive species of plants, mentioned in item 52 Appendix No. 1 to EMP - depending on the species - shall be carried out with participation and according to detailed instructions specified by an expert phytosociologist of the Contractor's environmental team, following at the same time the following guidelines: a) the elimination of positions of invasive species of plants shall be made by digging them out or by extracting (together with the root mass) or/and chemical spraying, b) during removal of humus from places of temporary occupation, the humus taken-off with invasive plants - not connected with other earth masses - pass to entities having relevant waste management licences for transfer to a waste dump.	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
09 – PRINCIPLES OF CARRYING OUT WORKS WITHIN BEDS OF WATERCOURSES						
55.	General conditions concerning nature protection	***Principles of carrying out works within the bed of Młynówka Kiełczowska*** Perform works for relocation of the bed of Młynówka Kiełczowska according to the following principles: a) prior to liquidation of the outlet section of Młynówka Kiełczowska, its new section shall be constructed as "dry", entering directly the Mrówka watercourse, b) prior to liquidation of the outlet section, rubble shall be recovered from its bottom to be used for construction of the new section of the watercourse, c) upon completion of construction of the new section, the existing outlet	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Control of the Contractor's documents Młynówka Kiełczowska. Verification / approval of the documentation handed over to the Engineer conc. caught species of animals. Control of progress in obtaining the required administrative decisions.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		section planned for liquidation shall be cut off from the headwater with a cofferdam, thus closing the supply of water, which will be directed to the new outlet section of the Młynówka, d) after closing the supply of water to the liquidated watercourse section by separating its channel with a cofferdam, wait until water flows down from it, undertaking at the same time works (excavations, trenches) facilitating its flow, enabling more aquatic organisms, especially fish, to escape from this trap together with water, e) when water flows down from this section, collect the fish left in the depressions with water and molluscs and other animals and release them to Młynówka Kiełczowska several hundred metres above the conducted works, f) Works shall be carried out with the participation of the following specialists: ichthyologist and entomologist of the Contractor's environmental team, g) before releasing the collected organisms, their species should be identified, and after completion of works, information on the number and species of the collected organisms will be given in the Contractor's monthly report, h) before performance of activities encompassing catching and transfer of water organisms, necessary permission will be obtained resulting from provisions of the Act on nature protection and Inland fishing act.		Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Control of progress in obtaining the required administrative decisions.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
56.	General conditions concerning nature protection	***Conditions concerning the construction method of a new bed of Młynówka Kiełczowska*** The new bed of Młynówka Kiełczowska should have its character similar to the liquidated bed	The bed of Młynówka Kiełczowska within the boundaries of the Task implementation area.	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		of the watercourse (cross-section and longitudinal inclination of bottom), and, in addition, the following principles of its execution should be adopted: a) use the rubble coming from the bottom of the eliminated section to construct the bottom of the new watercourse section, b) rubble is to be recovered from the bottom of the liquidated section before its backfilling, c) the banks shall be covered with turf and possibly reinforced with fascine hurdles or planted with poplar cuttings, d) do not reinforce with rip-rap of broken stone, nor with stone cubes, e) do not use gabion mattresses or baskets to reinforce bank slopes, f) measures shall be planned in advance and then performed consisting of differentiation of the bottom structure (e.g. by creating hollows and shallow places, and also by laying boulders, branches). The scope and method of performing such measures should guarantee safe passage of flood water. Perform the measures with participation of an expert ichthyologist from the Contractor's environmental team.		Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
57.	General conditions concerning nature protection	***Formation of places of stagnant water in the new bed of Młynówka Kiełczowska*** In the new section of Młynówka Kiełczowska, design not less than 2 places of stagnant water in the form of oval bays with the water surface area of not less than 1 m². Execute the places of stagnant water with participation of an expert ichthyologist from the Contractor's environmental team.	The bed of Młynówka Kiełczowska within the boundaries of the Task implementation area.	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
58.	General conditions concerning nature protection	***Informing the fishing organisation of works in the bed of Młynówka Kiełczowska*** Inform the fishing organisation (Polish Fishermen Association, Wrocław District) of the planned date of performing organisms catching in the bed of Młynówka Kiełczowska at least two months in advance and agree upon with the fishing organisation the manner of performing fish catching and the places of transferring the fish. Before starting to catch water organisms, agree upon with the fishing organisation the schedule and manner of performing fish catching and the places of transferring the fish.	Task implementation area	Verification of works schedules and control of provision of information to a fishing organisation Control of performance of required arrangements with a fishing organisation.	During Task implementation, regularly, according to the works schedule and if there is a need to perform advance arrangements.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Control of performance of arrangements with a fishing organisation.	During the Task implementation period, on a regular basis, at least once a month (according to the works schedule and if there is a need to perform advance arrangements by the Contractor).	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
59.	General conditions concerning nature protection	***Control of sediments extracted from watercourses*** When performing works connected with desludging and removal of sediments and rubble from the watercourses, apply the following rules of conducting works: a) directly after removing the bottom material from the course bed and again within an hour after desludging,	Riverbeds of Młynówka Kiełczowska, Widawa, Mrówka, beds of ditches within the boundaries of the Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		inspect the places where material is stored, b) storage places will be agreed with the Contractor's environmental team and transferred in advance for agreement to the Engineer, c) the inspection mentioned in item a-d made by an expert ichthyologist – a member of the Contractor's environmental team, d) the frequency of inspections may be higher than specified above and shall be adjusted to the type and quantity of the extracted bottom sediments and weather conditions prevailing during performance of works (i. e. high temperature), e) collect and release to water any discovered animals found in the collected bottom sediments (especially fish, molluscs), larval stages of invertebrates, (especially dragon flies), f) the collected individuals should be moved and released at places ensuring their safety (e.g. at sections of completed works in the bed or where desludging woks were not carried out).		Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
60.	General conditions concerning nature protection	***Conditions of desludging beds of melioration ditches***	Beds of ditches within the boundaries of the	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor’s team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		Desludging during maintenance of the sections of the melioration ditches listed below shall be limited to the sections only where a layer of clay is limiting the correct flow of water. Remove the layer of silts with a thickness of not more than 30 cm. Maintain the existing bankline of excavations. Remove the layer of silts with a thickness of not more than 30 cm. The performance of works	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		should also ensure the maintenance of the existing bankline of ditches. The following sections of melioration ditches are covered by desludging works: • R4 – maintenance of three sections of the ditch on plot no. 262/1 with the distance of 79.7 m, on plot no. 216 with the distance of 153.6 m, on plot no. 226/2 with the distance of 351.1 m, map sheet AM2, precinct of Śliwice; • R7 – maintenance of the section of the ditch with distance of 45.8 m, plot no. 326, map sheet AM2, precinct of Dobrzykowice; • R10 – maintenance of the section of the ditch with distance of 41 and 28.5 m, plot no. 498/4, map sheet AM2, precinct of Kiełczów; • R11 – maintenance of the section of the ditch with distance of 96.5 m, plot no. 499/1, map sheet AM2, precinct of Kiełczów; • R12 – maintenance of the section of the ditch with distance of 183 m, plot no. 524, map sheet AM2, precinct of Kiełczów; • R15 – maintenance of the section of the ditch with distance of 233.5 m, plot no. 212, map sheet AM2, precinct of Śliwice; • R16 – maintenance of the section of the ditch R-K9 with distance of 135.6 m, plot no. 200, map sheet AM2, precinct of Śliwice; • R25 – maintenance of the section of the ditch R-G1 with distance of 70.6 m, plot no. 520, map sheet AM1,				

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
08 - REQUIREMENTS CONCERNING THE PREVENTION OF ENVIRONMENTAL CONTAMINATION						
61.	Air quality protection	***Limitation of dusting from means of transport*** Limit dust generation caused by the land means of transport, in particular by applying the following steps adequately: a) cleaning vehicle wheels before entering the public roads, b) cleaning surface of internal technological roads, c) using of vehicles adapted to transportation of powdery materials in packagings, d) other actions for prevention of contamination of roads with sand and mud, moved by vehicles, e) sprinkle surfaces of internal technological roads during conducted construction works.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
62.	Air quality protection	***Limitation of dusting during the execution of works*** Loose materials and aggregate intended for being used at the construction stage must be protected against being blown away and against excessive dusting during storage, as well as during their incorporation.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
63.	Air protection	***Limitation of flue gas emissions from machines and vehicles***	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		It is necessary to reduce the work time of motor machines and vehicles. Do not allow long-term operation of internal combustion engines of machinery and construction vehicles at a standstill (limit emissions at the so-called stage of idling speed). Equipment used at the stage of construction works must be in perfect technical order and satisfy all the legal requirements for the purpose of ensuring protection against dusts and gases being emitted to the air.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
64.	Soil, grounds, surface waters and air protection	***Prevention and actions related to penetration of contaminants into soil and water environment*** All works should be done in such a way as to eliminate the risk of penetration of any contaminants, in particular oil derivatives, into the soil and water environment. In the event of any spillage of oil derivatives, steps will be taken limiting the spreading of such pollutants, and shall be immediately removed. In the event of any contaminated of soil layers they should be removed immediately (with help of specialised contractor) and managed in compliance with the applicable legal regulations. Places of such kind are to be restored to the original condition.	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation concerning the organisation of works.	The whole period of Task implementation, up to date, not less than once a week.	Contractor’s team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
65.	Water and soil protection	***Providing back-up facilities with devices for pre-treatment of rain water*** Back-up facilities (used as places of maintenance of vehicles, machinery and devices, where they are parked, fuelled,	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation concerning the organisation of works.	The whole period of Task implementation, up to date, not less than once a week.	Contractor’s team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		undergo technical maintenance, etc.) shall be provided with devices for pre-treatment of rain water (to protect surface water and soils against oil derivatives).		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
66.	Soils, surface water protection	***Requirements for equipment used during works*** Equipment and machines used for works must meet the appropriate quality and technical standards, excluding the emission of hazardous contaminants to water and earth, mainly from the oil-derivative group (oils, greases, fuels).	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
67.	Soils, surface water protection	***Using fully operational equipment during the performance of works*** Do not use machines and equipment having technical defects or damages likely to have adverse impact on the environment and safety of people and property.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
68.	Reduction of noise emission	***Limitation of performance period of works to daytime***	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		Works shall be performed at daytime, i.e. between 6.00 a.m. and 10.00 p.m.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
69.	Soils, surface water protection	***Limitation of potential sources of contamination by oil derivatives*** Construction works shall be so organised as to limit the pouring of fuels and other chemical agents on the task implementation area. Such measures can only be conducted within the hardened surfaces of back-up facilities provided with a non-permeable layer preventing the penetration of pollutants to water and soils.	Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation concerning the organisation of works.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
11 - REQUIREMENTS CONCERNING PROTECTION OF CULTURAL MONUMENTS						
70.	Monuments protection	***Ensuring archaeological supervision*** For the whole period of earthworks performance, the Contractor shall ensure the participation of a team of expert archaeologists (the Contractor's archaeological supervision). The team is responsible for implementation and/or coordination of the following actions: a) archaeological works will be conducted within discovered archaeological sites, b) for carrying out works within the limits of the discovered archaeological sites in line with the conditions specified in the works permit issued by the Provincial Monument Conservator, c) appropriate protection of valuable objects and other elements of historical value and transporting them from the working site to the designated institution place or institution, d) prepare an appropriate action plan for archaeological supervision in form of a *Quality Assurance Plan.*	Task implementation area	Visual monitoring, photo documentation. Control of progress of works over the *Quality assurance plan* in scope of activities of the team of expert archaeologists and its compliance with EMP requirements. Control of participation and arrangements of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Control of implementation of the required procedure. Control of participation of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
71.	Monuments protection	***Procedure in case of discovering movable historical objects or archaeological sites*** If during construction works or earthworks the Contractor discovers an object likely to be a historical object, he/she is obliged to: a) suspend all the works likely to destroy or damage the objects discovered,	Task implementation area	Visual monitoring, photo documentation. Control of participation of the required experts. Control of obtaining the necessary arrangements and decisions.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		shall secure them and the place of discovery with the use of available measures, b) shall notify about this fact the Provincial Conservator of Historical Monuments immediately, and if impossible, the competent local authorities (mayor). The Contractor shall also notify the Engineer in this respect, c) the Contractor's team of expert archaeologists shall be notified immediately, d) the performance of appropriate documentation actions will be facilitated and ensured, archaeological examinations and other necessary actions indicated by the team of Contractor's archaeological experts and/or administration bodies responsible for securing the objects and other historical values, e) in case of immovable historical objects, after finishing the measures described in point d, the guidelines and other actions shall be enforced as specified by the archaeological team and/or administration bodies responsible for securing the objects and other historical values.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer. Control of participation of the required experts, control of obtaining the necessary arrangements and decisions.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
72.	General findings concerning cultural heritage and monuments protection	***Obtaining the permit from the Provincial Conservator of Historical Monuments*** For the purpose of implementing the above EMP conditions related with protection of cultural heritage and monuments (item no. 70, 71 Appendix No. 1 to EMP), the Contractor, if so needed, will also obtain, under an authorisation granted by Employer, the permit of the Provincial Conservator of Historical Monuments (PCHM) for the performance of archaeological rescue survey.	Task implementation area	Control of progress of works over the mentioned permit. Control of handing over documents to the Engineer. Control of compliance with arrangements in the mentioned permit.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
12 - REQUIREMENTS FOR ENSURING HUMAN HEALTH AND SAFETY						
73.	Human health and safety protection	***Appropriate storage of building materials*** Store the materials used during construction works in the manner securing them against damage and in the manner not posing a risk to the human and property.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
74.	Human health and safety protection	***Ensuring the safety conditions during performance of works*** The operation of machinery, equipment and other devices must be conducted in a manner not threatening the safety of environment, people and property, excluding falling over, sliding down or falling down equipment and machinery.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
75.	Human health and safety protection	***Protection of health and safety of people, including fire protection*** The Contractor shall prepare the HASP Plan, will obtain approval of the Engineer for its content, and will then perform works according to the provisions of the HASP plan. Requirements with regard to fire protection	Task implementation area	Visual monitoring, photo documentation. Control of progress of works over document preparation. Control of handing over the document to the Engineer.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		included in HASP should include also prohibition on bonfires and combustion of flammable materials within the task implementation area.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
76.	Human health and safety protection	***Preparation of documents connected with the safety of people, property and environment in the Task implementation area*** Considering the risk of flood occurrence, the Contractor will prepare and present for the Engineer's approval a document entitled: *Construction site's flood management plan*, which will consider the local hydrological and	Task implementation area	Visual monitoring, photo documentation. Control of progress of works over preparation of the mentioned documents. Control of handing over the document to the Engineer.	The whole period of Task implementation.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		meteorological conditions in the construction site areas. In case of flood, the Contractor shall proceed in accordance with the procedures described in the above-mentioned document: a) The Contractor will prepare and prepare and present for the Engineer's approval a document entitled: *Building site organisation design*, which should include, among others, the following elements: site back-up facilities location, site back-up facilities development, site back-up facilities protection, technological roads, environment protection within the site back-up facilities, b) The Contractor will prepare and present for the Engineer's approval a document entitled: Quality assurance plan, which should include, among others, the following elements: works performance organisation, organisation of traffic at the site together with marking of works, OH&S and environment protection, list of working teams, scope of duties of the key personnel, quality control, laboratory tests, c) The Contractor will prepare and present for the Engineer's approval a document entitled: *Implementation plan and management strategy of Environmental, Social, Health and Safety Risks*: which should include, among others, the following elements: description of actions taken for risk management, description of the used materials, equipment, description of management processes, etc., to be implemented by the Contractor and its subcontractors to minimise the risks.		Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
77.	Human health and safety protection	***Designation and appropriate marking of dangerous zones*** On the areas of task implementation, the Contractor is obliged to designate dangerous zones which pose a risk to human health and life and mark such zones with the use of warning boards and additionally secure them against unauthorised access.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
78.	Human health and safety protection	***Requirement of appropriate protection and marking of the work area*** The Contractor shall secure and provide marking in the building site. The Contractor's OHS specialists shall be responsible for adequate marking assurance of building site according to applicable laws. This marking shall be regularly controlled, in the case of destruction or theft of marking the Contractor shall promptly rebuild or supplement it.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
79.	Human health and safety protection	***Ensuring appropriate conditions of visibility*** In case where works have to be carried out at night-time and in the conditions of limited visibility, the Contractor shall provide sources of lighting allowing to achieve light intensity appropriate for working conditions. The Contractor shall ensure permanent visibility conditions at day and night for elements of building site protection and marking such barriers and signs, for which it is necessary for safety reasons.	Task implementation area	Visual monitoring, photo documentation.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
			Task implementation area	Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
80.	Human health and safety protection	***Documenting and monitoring the technical condition of buildings exposed to the impact of vibrations*** Before beginning of the works throughout of which there may occur vibrations, which shall constitute a threat for the neighbouring inhabitants and infrastructural structures nearby, the Contractor will carry out survey of existing buildings and objects with particular focus on cracks and damages During the performance of works, the Contractor is regularly monitoring the condition of such buildings and facilities.	Task implementation area together with the surroundings	Visual monitoring, photo documentation.	The whole period of Task implementation (including before commencement of works), up to date, not less than once a week.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	Before the commencement of works and during works execution, up to date, not less than once a month.	Engineer's team
81.	Human health and safety protection	***Prevention rules for diseases such as HIV-AIDS*** The Contractor shall implement training and programme of raising awareness of spreading HIV-AIDS through an approved service provider and shall take all other measures outlined in order to reduce a risk of HIV transfer among the Contractor's personnel and local population. Such measures will be carried out in accordance with the detailed conditions defined in the *Bidding Documents of the* contract (part General Conditions*, clause 6.7*).	Task implementation area	Control of compliance of the Contractor's activities with the said conditions in the Contract.	The whole period of Task implementation (including before commencement of works), up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation (including before commencement of works), up to date, not less than once a month.	Engineer's team
82.	Human health and safety protection	***Sapper supervision on the Task implementation area*** In order to minimise the risk related to the likely occurrence of hazardous military objects on the Task implementation area, the Contractor shall ensure: a) before starting works – the Task	Task implementation area	Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Control of handing over documents to the Engineer.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a week and each time in case of the situations covered by the condition.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		implementation area will be inspected in terms of the existence of unexploded shells (a report with results of the above-mentioned sapper inspection shall be submitted to the Engineer for approval), b) during the execution of works – sapper's supervision over works (conducted by the sapper's supervision team), consisting of regular checking of and cleaning of the Task implementation area, of hazardous military objects, along with their utilisation; c) if hazardous military objects are found on the Task implementation area – apply the procedures described in item 83 of Appendix No. 1 to EMP.		Visual monitoring, photo documentation. Control of participation and arrangements of the required experts. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month and each time in case of the situations covered by the condition.	Engineer's team
83.	Human health and safety protection	***Rules of procedure for unexploded shells*** In case of finding an unexploded shell: a) immediately stop the works; b) evacuate the area around the find and secure against unauthorized access; c) immediately notify the sapper supervision and the Police, and then act according to their instructions; d) notify the Engineer and Employer; e) 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.	Task implementation area	Visual monitoring, photo documentation. Control of implementation of the required procedures. Control of handing over documents to the Engineer.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month and each time in case of the situations covered by the condition.	Contractor's team
				Visual monitoring, photo documentation. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation (also, in particular, before commencement of works and during works), up to date, not less than once a month and each time in case of the situations covered by the condition.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
13 – REQUIREMENTS FOR THE CONTRACTOR'S PERSONNEL ENGAGED IN EMP EXECUTION						
84.	Implementation of the EMP execution	***Ensuring the team of expert archaeologists*** For the whole period of performance of the Task, the Contractor shall ensure the participation of a team of expert archaeologists. The experts will be involved in execution of selected mitigating measures specified in the EMP (specifically the measures described in item 70, 71, 72 of Appendix No. 1 to EMP). Members of the team of expert archaeologists must have an appropriate license. The Engineer's approval is required for personal composition of the team of expert archaeologists. Before the commencement of works, the Contractor shall present for the Engineer's approval the *Quality assurance plan* in scope of activities of the team of expert archaeologists.	Task implementation area	Control of participation of expert archaeologists in implementation of current mitigation measures (to the extent corresponding to the current stage of works) and provision of conclusions to the Site Manager.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Current controls of fulfilling the current obligations by expert archaeologists of the Contractor's team.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
85.	Implementation of EMP execution	***Ensuring the team of OH&S experts*** For the whole period of performance of the Task, the Contractor shall ensure the participation of OH&S experts. The experts will be involved in on-going supervision, implementation and control of compliance with OH&S regulations and rules. Members of the team of OH&S experts must have an appropriate license. The Engineer's approval is	Task implementation area	Control of participation of OH&S experts in implementation of current mitigation measures (to the extent corresponding to the current stage of works) and provision of conclusions to the Site Manager.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		required for personal composition of the team of OH&S experts. Before the commencement of works, the Contractor shall present for the Engineer's approval the *Quality assurance plan* in scope of activities of the team of OH&S experts.		Verification / approval of documentation handed over from the Contractor to the Engineer. Current controls of fulfilling the current obligations by OH&S experts of the Contractor's team.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
86.	Implementation of EMP execution	***Ensuring the team of sapper archaeologists*** For the whole period of performance of the Task, the Contractor shall ensure the participation of a team of sapper supervision. The team will be involved in execution of selected mitigating measures specified in the EMP (specifically the measures described in item 82, 83 of Appendix No. 1 to EMP). Experts of the team of sapper supervision must possess appropriate licenses. The Engineer's approval is required for personal composition of the team of sapper supervision. Before the commencement of works, the Contractor shall present for the Engineer's approval the *Quality assurance plan* in scope of activities of the team of experts of the team of sapper supervision.	Task implementation area	Control of participation of a sapper supervision team in implementation of current mitigation measures (to the extent corresponding to the current stage of works) and provision of conclusions to the Site Manager.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Current controls of fulfilling the current obligations by sapper supervision experts of the Contractor's team.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
87.	Implementation of EMP execution	***Nature supervision during performance of works*** Works shall be conducted under the supervision of the Contractor's environmental team: a) The Contractor's environmental team shall include the following experts: phytosociologist, ichthyologist, herpetologist, entomologist, chiropterologist, ornithologist and theriologist; b) the correct performance of measures mitigating the Task's negative environmental impact shall be pursued by the Contractor's environmental team within the whole Task implementation period; c) each day of Task implementation, at least one of the experts shall perform inspection of the entire Task site and of compliance of works being performed with the conditions of the environmental decision for the Task.	Task implementation area	The Contractor's confirmation of the performance of activities in the monthly Report on the Contract execution, attached with site inspection records, reports prepared by experts in natural environment, etc. Control of participation of the required expert in the Contractor's team.	The whole period of Task implementation, up to date, daily in the period of Task implementation.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Current controls of fulfilling the current obligations by experts in natural environment of the Contractor's team.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
88.	Implementation of EMP execution	***Reports of the Contractor's environmental team*** The Contractor's environmental team also conducts reporting including: a) preparation of periodic reports (monthly, quarterly and final reports) from the execution of the conditions specified in	Task implementation area	Controlling the progress in preparation and delivery of required reports and information to the Engineer. Verification of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		EMP, b) monthly reports will be submitted as a checklist with necessary attachments, including reports on implementation of environmental supervision; c) preparation of reports from nature supervision conducted, which should be submitted to a body supervising the Natura 2000 site at the date until the last day of each calendar quarter. The last report on implementation monitoring should be prepared within 3 months from the date of completion of the investment, d) report on the monitoring of fish prepared according to the conditions described in Appendix No. 2 to EMP, item 92; e) the above-mentioned reports will be submitted to the Engineer and require its approval.		Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
89.	Implementation and reporting of EMP execution	***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 Task implementation; b) current monitoring of the implementation status of particular conditions from Appendix No. 1 and 2 to EMP on the Task implementation 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) cooperation with the other part of the Contractor's team (including the environmental team, team of archaeological experts and sapper supervision team, safety supervision specialists) in scope of ensuring the adequate implementation of the EMP; e) reporting of EMP execution; f) cooperation with the persons responsible for EMP enforcement in the Contractor's and Employer's team. The Engineer's approval is required for the person appointed to perform the above-mentioned function.	Task implementation area	Control of participation of the required person. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
90.	Implementation and reporting of EMP execution	***Training of the Contractor's staff for EMP implementation*** The Contractor is responsible for providing training (completed with a test verifying the knowledge of participants) within EMP rules and conditions and protective indications at the time of construction for its managing personnel and engineering-technical personnel supervising the construction works, which must be prepared with the help of Contractor's environmental team. The Contractor's employees who will handle fuels and other oil derivative substances and other substances harmful for health and environment should receive training within the protection of soil and water environment and applicable protective measures, including the use of sorbents. 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.	Task implementation area	Checking if all the required persons currently working for the Contract participated in training and delivery of conclusions to the Site Manager.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification of information on training of the Contractor's personnel provided to the Engineer in monthly reports. Current controls of knowledge of EMP conditions of the Contractor's current personnel.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
91.	Periodic meetings on implementation of mitigation and monitoring measures	***Discussing the EMP implementation during working meetings and at Site Councils*** During the implementation of the tasks arising from the EMP, monthly team meetings of PIO, Engineer and Contractor will take place, to discuss and monitor the implementation of mitigation and monitoring measures. Regardless the above, current requirements and problems relating to EMP implementation will be discussed at all Site Councils.	Task implementation area	Control of holding the mentioned meetings and control of discussing the matters connected with EMP implementation at Site Councils. Delivery of conclusions to the Site Manager.	The whole period of Task implementation, up to date, not less than once a month.	Contractor's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
				Control of holding the mentioned meetings and control of discussing the matters connected with EMP implementation at Site Councils. Delivery of conclusions to the Site Manager. Verification / approval of documentation handed over from the Contractor to the Engineer.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team
14 – REQUIREMENTS CONCERNING NATURE MONITORING						
92.	General conditions concerning nature protection	***Performing the monitoring of fish migration*** During the Task implementation period and two years since restoring the operation of the Kiełczówek weir according to the provisions of the water permit, perform monitoring of fish migration along the sections of the following watercourses: • along the Widawa section downstream and upstream of the weir - before and after	Widawa section downstream and upstream of the weir, outlet section of the Mrówka watercourse, outlet and initial section of Młynówka Kiełczowska	Visual monitoring, photo documentation. Controlling the progress in preparation and delivery of required reports and information to the Engineer.	During the Task implementation period (in periods adapted to operational specificity, according to the established monitoring methodology) and for two years since restoring the operation of the Kiełczówek weir.	Contractor’s team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
		Młynówka Kiełczowska relocation, • on the outlet section of the Mrówka watercourse (after relocation of Młynówka Kiełczowska), • on the outlet and initial section of Młynówka Kiełczowska (before and after Młynówka Kiełczowska relocation). The Contractor shall prepare and submit to the Engineer, 30 days before the planned date of starting monitoring, the monitoring implementation methodology. Within 2 months from finishing monitoring, the Contractor submits to the Engineer a post-implementation analysis for the impact of the Kiełczówek weir on ichthyofauna migration		Control of participation of the required experts. Visual monitoring, photo documentation. Current control of fulfilment of the EMP condition. Verification / approval of documentation handed over from the Contractor to the Engineer.	On a regular basis (in periods adapted to operational specificity, according to the established monitoring methodology) within the whole Task implementation period and for two years since restoring the operation of the Kiełczówek weir, at least once a month.	Engineer's team
93.	General conditions concerning nature protection	***Inspection of the condition of fences of work areas*** The condition of fences shall be regularly inspected throughout the entire period of construction, as mentioned in item 8 of Appendix No. 1 to EMP. In the period of 1 March to 31 August, fences shall be inspected not less than once every 3 days, and between 1 September until the end of February, not less than every 10 days. Inspections conducted with participation of an expert herpetologist.	Task implementation area	Visual monitoring, photo documentation. Control of participation of the required experts.	The whole period of Task implementation, up to date, not less than once a week.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team

No.	Issue	Subject of monitoring	Place of monitoring	Strategy of monitoring	Time and frequency of monitoring	Responsible entity
94.	General conditions concerning nature protection	***Controls of places likely to be traps for animals*** At the stage of Task implementation, water chambers, trenches, collectors and other structures likely to be a trap for small animals should be monitored daily (with participation of an expert theriologist or herpetologist). In case of finding any animals in them, act according to the rules described in item 10 of App. 1 to EMP.	Task implementation area	Visual monitoring, photo documentation. Control of participation of the required experts.	The whole period of Task implementation, daily.	Contractor's team
				Verification / approval of documentation handed over from the Contractor to the Engineer. Visual monitoring, photo documentation. Control of participation of the required experts.	The whole period of Task implementation, up to date, not less than once a month.	Engineer's team