

APPENDIX 2. PLAN OF MONITORING MEASURES

Table reference:

- ¹ – the Contractor's confirmation of execution of works in a Monthly Report from implementation of the Works Contract, supported with reports from Site inspection, reports of environmental specialists, etc.
- ² – Contract Engineer's confirmation in a Monthly Report of the Engineer, supported by reports (minutes of meetings) and Site inspections. The Engineer shall be responsible for evaluation of monitoring which shall be confirmed in the periodical reports of the Engineer. Within the Engineer's structure the person responsible – Key expert on environment.
- ³ – confirmation of Contractor's environment specialist understood as report of the completed measures of a specialist (teams of specialists) according to requirements included in the Environmental Decision and in the Appendix No. 1. Plan of mitigation measures.

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
01 - REQUIREMENTS CONCERNING ENVIRONMENTAL PROTECTION TO BE INCLUDED IN THE BUILDING DESIGN						
1	Agreements concerning environmental protection to application in the building design	[III.1] Building design and any other technical documentation elaborated by the Contractor shall consider recommendations resulting from the issued environmental decision.	Applies to the whole Works Contract	Implemented – Building Design, Engineer's supervision during designing works executed by the Contractor ¹²	During design works, once every 2 weeks	Contractor – designing team of the Contractor
					Once a month	Engineer
2	Recommended environmentally friendly technical solutions	[III.2] A vertical anti-filtration barrier will be made embankment water-side foot. This barrier will be linked with a geomembrane screen. The barrier will reach max. 10 m below the terrain level. This screen in the embankment water-side slope will be made of geomembrane anchored at the top at the embankment crest and in the bottom in the vertical anti-filtration barrier.	Applies to the whole Works Contract	Implemented – Building Design, Engineer's supervision during construction works ¹²	During the anti-filtration barrier execution	Contractor / Site Manager
					Permanent supervision	Engineer
3	Recommended technical solutions	[III.3] Parameters of the extended embankments: Section I: – width of the embankment = approx. 3 m and approx. 5 m at a road section going along it, – inclination of the embankment water-side slope = 1:2.5÷1:4.7 and the embankment water-side slope = 1:2.5÷1:2.7, – ordinate of the embankment crest = 143.91÷145.90 m above sea level (linked to the existing embankment ordinate). Section II: – width of the embankment crest = approx. 3 m and approx. 5 m at a road section going along it. – inclination of the embankment water-side slope = 1:2.2÷1:4.2 and the embankment water-side slope = 1:2.5; – ordinate of the embankment crest = 146.06÷147.79 m above sea level (linked to the existing embankment ordinate).	Applies to the whole Works Contract	Implemented – Building Design, Engineer's supervision during construction works ¹²	During works execution	Contractor / Site Manager
					Permanent supervision	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>Section III</p> <ul style="list-style-type: none"> – width of the embankment crest = approx. 3 m and approx. 5 m at a road section going along it. – inclination of the embankment water-side slope = 1:2÷1:4 and the embankment water-side slope = 1:2÷1:3, – ordinate of the embankment crest =147.79÷148.24 m above sea level (linked to the existing embankment ordinate). <p>Section San</p> <ul style="list-style-type: none"> – width of the embankment crest = 2.5÷4 m, – inclination of the embankment water-side slope = 1:2.5÷1:4.1 and the embankment water-side slope = 1:2.6÷1:2.8; – ordinate of the embankment crest = 145.90÷146.23 m (linked to the existing embankment ordinate). 				
4	Recommended environmentally friendly technical solutions	[III.4] There will be no 'green route' at the section running through the "Wisła pod Zawichostem" Nature Reserve i.e. at the section with a length of approx. 300 m (at the land plot no. 2, within the precinct of Witkowice, in the Radomyśl nad Sanem Commune).	Section I (the land plot no. 2 precinct Witkowice)	Implemented - Building Design, Engineer's supervision during construction works ¹²	During execution of 'green route'	Contractor / Site Manager
					Permanent supervision	Engineer
5	Recommended environmentally friendly technical solutions	[III.5] At the modernized embankment ramps in Section I, apart from ramps at km 0+530 and 6+410, it is required to set up barriers aimed to limit free entry into the inter-embankment by unauthorized persons / entities but letting land owners to enter (drive into) it.	Section I	Implemented - Building Design, Engineer's supervision during construction works ¹²	During Section I execution	Contractor / Site Manager
					Permanent supervision	Engineer
6	Recommended environmentally friendly technical solutions	[III.6] In order to secure the flood-protection embankments against digging and burrowing animals, there will be a galvanised steel mesh placed from the base of the flood-protection embankment to the height of control water at the embankment water-side slope, at a depth of min. 0.2 m below the ground. This mesh will have the following parameters:	Applies to the whole Works Contract	Implemented - Building Design, Engineer's supervision during construction works ¹²	During secure execution	Contractor / Site Manager

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<ul style="list-style-type: none"> - thickness of its wire: min. 2.5 mm, - maximum dimensions of its eyelet: 8 x 8 cm, - anchoring by means of steel bars in an amount of min. 1 pc. per 1m². <p>This mesh will be mounted along the entire length of the embankments covered by the Works Contract.</p>			Permanent supervision	Engineer
7	Recommended environmentally friendly technical solutions	<p>[III.7] Any interference with watercourses/ditches is permitted only to a limited extent, i.e.:</p> <p>1) watercourses are permitted to be reinforced only within the redeveloped embankments water-locks / their inlets / outlets, respectively,</p> <p>Section I:</p> <p>a) the embankment water-lock 1.1 at km 2+735 at the drainage ditch:</p> <ul style="list-style-type: none"> - the inlet: reinforcement of the bottom with a stone cover and the slopes with mesh-stone mattresses at a length of up to 5 m and a bank-wall (river-bank band) made of fascine bunch at a length of up to 27 m, - the outlet: reinforcement of the bottom with a stone cover and of the slopes with a mesh-stone mattress at a length of up to 5 m and a bank-wall (river-bank band) made of fascine bunch at a length of up to 25 m, moreover, at its estuary into the reservoir, a stone cover is permitted at a length of approx. 3 m in order to protect the place of water discharge. <p>b) the embankment water-lock 1.2 at km 4+093 at the drainage ditch:</p> <ul style="list-style-type: none"> - the inlet: reinforcement of the slopes with mesh-stone mattresses at a length of up to 27 m and a stone cover at the bottom, - the outlet: reinforcement of the bottom with a stone cover and of the slopes with a mesh-stone mattress at a length of 	Applies to the whole Works Contract	Implemented - Building Design, Engineer's supervision during construction works ¹²	During reinforcements execution	Contractor / Site Manager
					Permanent supervision	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>up to 28 m; moreover a bank-wall (river-bank band) made of fascine bunch at a length of up to 35 m,</p> <p>c) the embankment water-lock 1.3 at km 6+206 at the Strachocka river:</p> <ul style="list-style-type: none"> - the inlet: reinforcement of the bottom with a stone cover and of the slopes with a mesh-stone mattress at a length of up to 11 m; moreover a bank-wall (river-bank band) made of fascine bunch at a length of up to 66 m, locally at the river meander (the left bank) reinforcement of the slope with mesh-stone mattress at a length of up to 20 m, - the outlet: reinforcement of the bottom with a mesh-stone mattress at a length of up to 4 m, then with a stone cover - up to 6 m and of the slopes with a mesh-stone mattress; moreover a bank-wall (river-bank band) made of fascine bunch at a length of up to 25 m. <p>Section II:</p> <p>a) the embankment water-lock 2.1 at km 0+055 at the drainage ditch:</p> <ul style="list-style-type: none"> - the inlet: reinforcement of the bottom with a stone cover at a length of up to 14 m and of the slopes with mesh-stone mattresses; moreover a bank-wall (river-bank band) made of fascine bunch at a length of up to 26 m, - the outlet: reinforcement of the bottom with a stone cover and of the slopes with a mesh-stone mattress at a length of up to 16 m; moreover a bank-wall (river-bank band) made of fascine bunch at a length of up to 23 m, <p>b) the embankment water-lock 2.2 at km 2+178 at the drainage ditch:</p> <ul style="list-style-type: none"> - the inlet: reinforcement of the bottom with a stone cover and of the slopes with a mesh-stone mattress at a length of up to 17 m, - the outlet: reinforcement of the bottom with a stone cover and of the slopes with mesh-stone mattresses at a length of up to 9 m; moreover a bank-wall (river-bank band) made of fascine bunch at a length of up to 28 m, 				

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		<p>c) the embankment water-lock 2.3 at km 4+887 at the Sanna river:</p> <ul style="list-style-type: none"> - the inlet: reinforcement of the bottom with a stone cover and of the slopes with mesh-stone mattresses at a length of up to 18 m and a bank-wall (river-bank band) made of fascine bunch at a length of up to 48 m, - the outlet: reinforcement of the bottom with a stone cover and of the slopes with mesh-stone mattresses at a length of up to 16 m; moreover a bank-wall (river-bank band) made of fascine bunch at a length of up to 30 m, <p>Section III:</p> <p>a) the embankment water-lock 3.1 at km 0+303 at the drainage ditch:</p> <ul style="list-style-type: none"> - the inlet: reinforcement of the bottom with a stone cover at a length of up to 8 m and of the slopes with a mesh-stone mattress - the left bank at a length of up to 31 m, the right bank - at a length of up to 8 m, at the remaining section - the left bank at a length of up to 56 m, the right bank at a length of up to 76 m - a bank-wall (river-bank band) made of fascine bunch, - the outlet: reinforcement of the bottom with a stone cover and of the slopes - with mesh-stone mattresses at a length of up to 12 m and then the right bank: at a length of up to 107 m - a mesh-stone mattress, further 119 m - a bank-wall (river-bank band) (fascine bunch), the left bank at a length of up to 113 m - a bank-wall (river-bank band) (fascine bunch). 				
8	<p>Recommended environmentally friendly technical solutions</p>	<p>[-] On the sections of the embankment, where the anti-filtration barrier is designed, the anti-filtration barrier will be constructed using Deep Soil Mixing technology.</p>	<p>Applies to the whole Works Contract</p>	<p>Implemented – Building Design, Engineer's supervision during construction works¹²</p>	<p>During anti-filtration barrier execution</p> <p>Permanent supervision</p>	<p>Contractor / Site Manager</p> <p>Engineer</p>

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
02 – RULES CONNECTED WITH PROPERTY ACQUISITION, ORGANIZATION OF THE BACK-UP FACILITIES, WAREHOUSES AND STACKING YARDS						
9	Illegal or excessive land occupation which may cause losses with regard to archaeological or natural resources and crops	[p. 26 Environ. Decision] Any occupation of land beyond the project demarcation lines indicated on the Site Plan and obtained by the Contractor for the site facilities and storage yards is prohibited.	Applies to the whole Works Contract	Visual monitoring ¹²	Throughout the whole period of works implementation	Contractor / Site Manager and Contractor's environmental team
					Once a month	Engineer
10	Real estate acquisition – permanent occupation	[-] Buyouts, compensation and help for the Project Affected People (by Land Acquisition and Resettlement Action Plan)	Applies to the whole Works Contract	Reports from land acquisition, tracking changes tables (RAP)	Throughout the whole period of Works Contract implementation	Investor / Engineer
11	Real estate acquisition – temporary occupation	[-] Payment of compensation for temporary occupation by the Contractor before commencement of works (by Land Acquisition and Resettlement Action Plan)	Applies to the whole Works Contract	Reports from land acquisition, tracking changes tables (RAP)	Throughout the whole period of Works Contract implementation	Contractor / Site Manager
					Once a month	Engineer
12	Environmental protection	[-] The Contractor, by their own effort, will acquire an area for the site facilities and storage yards. Any approval for temporary occupancy must be preceded by an analysis of its impact on particular environmental elements. When selecting the location for the site facilities for the construction site, the Contractor will consider the following aspects: - examining the area for its ground base, vegetation and ground water table: any construction sites should be located on areas free from trees and where the ground water table is below 1.0 m b.g.l., - the geological structure of area of construction site location shall	Site facility/ies and storage yards	Examining the area, documentation prepare by the Contractor's environmental team ³	Once during the preparing site facilities and storage yards	Contractor / Site Manager and OHS supervision as well as Contractor's environmental team
					Once during the preparing site facilities and storage yards	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>effectively protect ground water,</p> <ul style="list-style-type: none"> - the construction site location shall provide convenient access to energy and water supply for social purposes. - the access road to the site facilities shall not hinder access to the nearby buildings, - locate the construction site only beyond the area of any protected habitats, - it is not allowed to locate the site facilities within the terrace area. <p>The Contractor should prepare construction site organization plan which will indicate, apart from the location of the construction site facilities, the conditions of its management, including: the location of parks for the construction equipment and other vehicles, the method of soil and water protection against contamination with substances harmful for the environment, the method of draining rainfall water, the location of the warehouses for construction materials, and the place for waste storage.</p>				
13	Environmental protection	<p>[II.16] Area of occupation must be limited to the necessary minimum as well as land surface transformation during the works carried out. Construction site facility (ies) and storage place(s) must be properly marked and the signs maintained in good condition throughout the</p>	Site facility/-ies and storage yards	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's environmental team

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>whole duration of the works.</p> <p>The construction site facilities should be set up beyond the place of occurrence of wildlife habitats, i.e. within min. 30 m from the edge of a given valuable natural habitat (its panel). The selection of this place of the construction site facilities requires consultation with the Contractor's environmental team and Engineer's approval. It is permitted to locate material bases at the following locations:</p> <p>A. Section I:</p> <p>a) main:</p> <ul style="list-style-type: none"> - at km 0+550÷0+750 (at the land-side), - at km 1+750÷2+500 (at the land-side), - at km 5+650÷5+750 (at the land-side), - at km 7+000÷7+200 (at the land-side), <p>b) potential</p> <ul style="list-style-type: none"> - at km 0+000÷0+550 (at the land-side), - at km 0+750÷1+750 (at the land-side), - at km 2+500÷2+700 (at the land-side), - at km 2+750÷2+850 (at the land-side), - at km 2+870÷5+650 (at the land-side), - at km 5+750÷7+000 (at the land-side), <p>B. Section San:</p> <p>a) main:</p> <ul style="list-style-type: none"> - at km 0+000÷0+150 (at the land-side), - at km 0+000÷1+600 (at the land-side), - at km 1+850÷2+200 (at the land-side), <p>C. Section II:</p> <p>a) main:</p> <ul style="list-style-type: none"> - at km 0+200÷1+600 (at the land-side), - at km 1+700÷1+800 (at the land-side), - at km 2+550÷2+700 (at the land-side), - at km 4+170÷4+250 (at the land-side), - at km 4+850÷5+000 (at the land-side), <p>b) potential</p> <ul style="list-style-type: none"> - at km 0+000÷0+100 (at the land-side), - at km 0+150÷0+200 (at the land-side), - at km 4+450÷4+850 (at the land-side), 			Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>D. Section III:</p> <p>a) main:</p> <ul style="list-style-type: none"> - at km 0+050÷0+350 (at the land-side), - at km 0+800÷1+000 (at the land-side), - at km 1+300÷1+500 (at the land-side), <p>b) potential</p> <ul style="list-style-type: none"> - at km 0+350÷0+800 (at the land-side). <p>In the first place the location of material bases will affect the areas specified above as the main ones.</p>				
14	General principles for carrying out works	[-] Order should be maintained on the Site as well as proper works' management.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's environmental team
					Once a month	Engineer
15	General principles for carrying out works	[-] The Contractor shall ensure constant visibility conditions during the day and at night of such structures and signs which are obligatory for safety reasons.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor/ Site Manager
					Once a month	Engineer
16	Environmental protection	[II.1] All storage places of bulk materials will be secured against its dispelling and dissolving (e.g. by means of tarpaulins).	Applies to the storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
17	Environmental protection	[p. 32 Environ. Decision] Stored materials should be so formed and stored, in order to limit the formation of so-called ecological traps e.g. in the form of short-term favourable conditions for nesting.	Applies to the storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's environmental team

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
					Once a month	Engineer
18	Environmental protection	[II.2] All storage places of construction materials and/or waste will be set up beyond the special flood hazard area.	Site facility/ies and storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
19	Environmental protection	[II.3] The risk of water contamination by operational fluids derived from vehicles and machines will be mitigated by running regular checks on the technical condition of equipment and provision of sorbents (aimed to neutralise leaks) at the construction site.	Site facility/ies and storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
20	Environmental protection	[II.5] The construction site facilities should be located at places which allows for the delivery of materials which require periodic storage prior their use at the construction site. Access roads to the construction site should be lined with concrete slabs, which - upon the completion of works - will be removed.	Site facility/ies and storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
21	Water and soil protection	[II.6] The construction site facility/ies will be equipped with portable toilets (being provided with features to collect wastewaters by companies with appropriate entitlements to conduct this type of activity). The wastewaters will be transported to the nearest sewage treatment plant or catchment area.	Site facility/ies	Visual monitoring, invoices for the export of sewage ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
22	Water and soil protection	[II.14] It is prohibited to store waste, ground masses and set up material bases within the inter-embankment of the Vistula river, hollows and areas of water stagnation, wetland depressions as well as within other habitats specified by the Contractor's environmental team.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's environmental team
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
23	Trees protection	[II.18] It is prohibited to gather any construction materials and waste near tree trunks (i.e. within the contour of tree crests and at least 2 m beyond this contour) and shrubs.	Site facility/ies and storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
24	General principles for carrying out works	[-] The manner of materials storage or soil management must not change the water levels with detriment to the neighbouring soil.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
25	Environmental protection	[-] If hazardous substances and materials are stored on the building site, they must be protected appropriately, preventing the access of unauthorized persons, and information on a hazard must be provided on warning boards.	Site facility/ies and storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager, OHS supervision
					Once a month	Engineer
26	Environmental protection	[-] Waste management must be carried out in accordance with the Act of 14 December 2012 on waste. It is required to follow a rule of minimizing the amount of the waste generated. Waste generated during the Task implementation must be segregated and collected in containers or dedicated places, ensuring protection against the leakage of hazardous substances and it is necessary to ensure successive collection of waste by authorized entities.	Site facility/ies and storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager, OHS supervision
					Once a month	Engineer
27	Environmental protection	[-] Hazardous waste to be collected only by authorized entities. Until the waste is collected by authorized entities it must be stored in a way which prevents penetration of the hazardous substance to the environment, i.e. in sealed containers, in roofed areas, on paved surface, protected from unauthorized access.	Site facility/ies and storage yards	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager, OHS supervision
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
03 – ADDITIONAL MITIGATION MEASURES CONCERNING THE RESTORING OF THE SHELTERS AND FEEDING SITES REFERRED TO IN THE ENVIRONMENTAL DECISION						
28	Mitigation of negative impacts	<p>[II.29] Nesting booths should be hung out before works commencement:</p> <ul style="list-style-type: none"> a. the total number - 280, including: 105 - type "A", 150 - type "B", 6 - type "D" for hoopoe, 9 - for mergansers and owls, 2 - for nuthatch, 8 - for kestrels, b. at least half of these booths will be hung out within Section II, c. works related to the hang-out of nesting booths for birds should be conducted under the supervision of the Contractor's ornithologist with the record of their location in the GPS system and at the map, d. these boxes will be regularly (annually) maintained and cleaned in autumn and winter periods (removal of old nests - in the period from 16 October to the end of February). During this period their occupation by birds will be monitored. As part of this monitoring while cleaning it is necessary to run one-off checks of their settlement (on the basis of manure, feathers, element used for building a nest, egg shells, etc.). Such monitoring will be conducted by an ornithologist. Such maintenance, cleaning and monitoring of the existing boxes will be run for a period of 10 years from the start of construction works and of new boxes - for 10 years upon their set-up. Appropriate permits should be obtained for the above-mentioned activities to be conducted within the nature reserve area. 	Applies to the whole Works Contract (Outside the area of works)	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of works implementation and during Defects Notification Period and Guarantee Period – once a year in term from 16.10 to 28.02 (or 29.02 in leap-year)	Contractor / Ornithologist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
					<p>Once a year (in term from 16.10 to 28.02 or 29.02 in leap-year)</p> <p>After Defects Notification Period and Guarantee Period</p> <p>Designated organizational unit of PGWWP (to 10 years after hung up of new boxes and to 10 years after start of works in case of existing boxes)</p>	Engineer
29	Mitigation of negative impacts	[Il.30] Before works commencement it is required to hang out boxes for bats in the number of 50 along the entire section of performance of these works, in the inter-embankment area at places specified and supervised by the Contractor's chiropterologist. These boxes will be made from sawdust, wood or other material in accordance with the current environmental knowledge and guidelines provided by the Contractor's chiropterological expert. Breeding boxes will be hung at trees at a height of over 4 meters, at a distance of not less than 50 meters from one another on the	Applies to the whole Works Contract (Outside the area of works)	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of works implementation and during Defects Notification Period (for 3 years) – once a year in autumn	Contractor / Chiropterologist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		western or southern side of their trunks. These boxes will be arranged in tree clusters in the inter-embankment, more or less evenly, in sunny places which border with tree plantings. Their exact locations must be fitted to terrain and habitat conditions taking into account access (convenient access road / path) at their installation and monitoring. When hanging these breeding boxes it is necessary to mark their positions (via the GPS system) and draw up a map of their locations. It is possible to place them close to the embankment, which allows for their hang-out as well as further monitoring. They are projected to be monitored for 3 years starting from their hang-out. Inspections will be conducted once in autumn months when cleaning boxes (when their settlement, e.g. on the basis of droppings, will be reported).			Once a year in autumn	Engineer
30	Mitigation of negative impacts	[II.31] Before works commencement it is necessary to mount 25 poles with a height of 120-180 cm, with planting of wild rose and/or hawthorn bushes (with a height of 50-80 cm, having at least three shoots), in order to create favourable habitats for red-backed shrike. These poles will be arranged at a distance of 300 meters from one another, on the eastern side of the embankments, at a distance of 20 - 30 meters from them (so as not to interfere with their infrastructure and mowing). Such poles with rose bushes should be placed in open areas for: Section II: 0+000÷2+000 km of the embankment, Section I: 5+800÷7+100; 3+600÷4+300 and 0+000÷2+500 km of the embankment. The above-specified works will be performed under the supervision of the Contractor's ornithologist and the Contractor's botanist.	Applies to the whole Works Contract (Outside the area of works)	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of works implementation and during Defects Notification Period and Guarantee Period Once a month	Contractor / Ornithologist, Botanist Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
04 - MEASURES TO BE PERFORMED PRIOR TO WORKS COMMENCEMENT						
31	Land surface and landscape protection, habitat protection	[II.12, II.13] Prior to conducting earthworks, it is necessary to remove a fertile layer of soil with its thickness of 20 - 30 cm, which is then to be stacked at the behind-embankment and used to clear the area upon the completion of construction works and top-soiling. The fertile layer of soil will be removed beyond the period from 1 March to 31 July. At wetlands, within which the Contractor's environmental team reports the habitat of amphibians, it will be conducted in the period from 1 August to 15 October. If - due to technical reasons - it is necessary to conduct the works (thoroughly or partially) at another time it will be performed under supervision of the Contractor's environmental team.	Applies to the whole Works Contract	Visual monitoring ¹²³	Throughout the whole period of implementation of the construction works	Contractor / Site Manager and Botanist
					Once a month	Engineer
32	Habitats protection	[II.19] All valuable natural habitats pointed out by the Contractor's environmental team (e.g. alluvial forests, plant clusters to be protected etc.) in the proximity of which works will be conducted will be properly protected during works by means of a tape.	Applies to the whole Works Contract (Neighborhood of redeveloped embankment)	Local inspection, recommendation formulation, checking the implementation for its correctness, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Botanist
					Once a month	Engineer
33	Habitats protection	[II.19] Within the boundaries of the "Wisła pod Zawichostem" Nature Reserve, before the start of construction work, the forest area should be enclosed, e.g. with tape.	Applies to the whole Works Contract (Neighborhood of redeveloped embankment)	Local inspection, recommendation formulation, checking the implementation for its correctness, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Botanist
					Once a month	Engineer
34	Habitats protection	[II.37] Prior to the start of construction works, the boundaries of the "Wisła pod Zawichostem" Nature Reserve will be marked by means of 35 boards with the following text: "Rezerwat przyrody Wisła pod Zawichostem" [Vistula at Zawichost Nature Reserve] made of galvanised steel sheet. Each of them will be placed on a galvanised	Section I km 3+020÷3+310	Visual monitoring, photographic documentation ¹²	Once – at the stage of works commencement Once a month – during works implementation	Contractor/ Site Manager

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		steel post (with a diameter of at least 60 mm and a wall thickness of at least 3 mm) fixed permanently to the ground. The boards will be executed in accordance with the Regulation of the Minister of Environment dated 10 December 2004 on the design of plates (Journal of Laws No. 268, item 2665).			Once a month	Engineer
35	Buildings protection	[II.39] The existing buildings and structures adjacent to the construction site and those which may be affected by construction work carried out by the Contractor should be inventoried prior to the commencement of works.	Applies to the whole Works Contract (Surrounding of the redeveloped embankment in places where there are nearby buildings)	Visual monitoring, photographic documentation ¹²	Once – before works commencement	Contractor / Site Manager
					Once	Engineer
36	Trees and shrubs protection	[II.18] Trees and shrubs not intended for felling, located close to the places where the works will be carried out, should be protected. The following trunk covers will be applied e.g. such as straw mats, formwork made of braided wired boards (trimmed boards, 2nd class, min. thickness - 20 mm, round galvanised steel wire), soil used to backfill boards at the base of tree trunks. In case the above protective measures cannot be technically applied, it is recommended to enclose (for the duration of the work) groups of tree / shrub plantings. Wooden bars having a diameter of approx. 6 cm and a height of approx. 2.5 m, polypropylene mesh with a height of approx. 1.8 m in bright colours, galvanised wire will be used among others to secure greenery; in case this is not technically plausible, fencing will be made by means of a coloured tape. If any trunk cover is destroyed or stolen, the Contractor shall promptly replace it or supplement it. When works are completed at a given section, the above-specified protective measures will be removed.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Before works commencement and throughout the whole period of implementation of the construction works	Contractor / Site Manager and Botanist
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
37	General conditions concerning nature protection - prevent and elimination of invasive species	[-] Prior to beginning of the construction works carry out field inspection of place of works with participation of Contractor's botanist in order to locate the presence and estimate population of invasive plants (except for <i>impatiens parviflora</i>). After locating and visibly marking in places where invasive plants grow take preventive actions during the implementation of the Works Contract, which limit spreading of these plants, including, among others, removing topsoil layer along with invasive plants and transporting them from area of works to the composting plant or neutralizing in any other effective manner. It is unacceptable to mix this topsoil with topsoil overgrown with local native vegetation.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor/ Site Manager and Botanist
					Once a month	Engineer
38	Accidents of local inhabitants caused by vehicle and machine traffic	<p>Proper demarcation of construction area and the access roads.</p> <p>The Contractor's Work Safety supervision will be responsible for proper marking of the Construction Site in accordance with relevant regulations. This signage will be regularly controlled and if any signage is destroyed or stolen, the Contractor shall promptly replace it.</p> <p>The access roads will be marked in accordance with relevant regulations and agreement with the Administrators of the roads used by the Contractor. This signage will be regularly controlled, if any signage is destroyed or stolen, the Contractor shall promptly replace it.</p>	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor/ OHS supervision
					Once a month	Engineer
39	Employee accidents during works	[-] Preparation, implementation and compliance with the Health and Safety Protection Plan by the Contractor.	Applies to the whole Works Contract	Checking whether the plan was prepared ¹² Next visual monitoring ¹²	Throughout the whole period of implementation of the construction works	Contractor / OHS supervision
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
40	General principles for carrying out works	[-] The Contractor shall ensure the preparation, implementation after the approval by the Engineer of Building site organization design.	Applies to the whole Works Contract	Checking whether the plan was prepared and accepting its substantive content ¹²	Execution before the beginning of works, one-time (possible update)	Contractor / Site Manager
				Next visual monitoring ¹²	One-time after preparation and after possible update	Engineer
41	General principles for carrying out works	[-] The Contractor shall ensure the preparation, implementation after the approval by the Engineer of Quality assurance plan.	Applies to the whole Works Contract	Checking whether the plan was prepared and accepting its substantive content ¹²	Execution before the beginning of works, one-time (possible update)	Contractor / Site Manager
				Next visual monitoring ¹²	One-time after preparation and after possible update	Engineer
42	Fauna protection	[II.25] In order to secure the construction site against the potential entry of amphibians into the area, prior to starting construction works, protective fences will be placed within sections pointed out by the Contractor's herpetologist. These fences will be made full (e.g. using film) or perforated (e.g. using mesh, with their maximum mesh size of 4.5 to 4.5 mm) and is buried down to a minimum depth of 15-20 cm. The height of aboveground fencing, throughout its length, will be at least 50 cm above ground level. The upper edge of fencing will be smoothly finished and bent outwardly, throughout its length, at an angle of 45-90° forming a peak with minimum width of 10 cm. This protective fencing - during the activity of amphibians - will regularly (at least once a week) checked for leaks. Any defects will be eliminated on a regular basis.	Applies to the whole Works Contract – sections where are the watercourses and ditches	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works: - once a week, during the activity of amphibians, checking of fences; - twice a day, during the migrations of amphibians, transportation	Contractor / Site Manager and Herpetologist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>Vegetation along these protective fences will be mowed. At the ends of this protective fencing, it is necessary to dig out pits with their dimensions of approx. 0.5 x 0.5 x 0.2 m, which will be lined with little buckets with more or less the same dimensions can be tightly dug). Twice a day: in the morning and evening - during the activity of amphibians - the Contractor's herpetologist will collect amphibians gathering along the fencing as well as found in buckets and transported them to their replacement position. It is advisable to place, for example, sticks in buckets in order to let small mammals leave them. Upon the period of activity of amphibians such pits and buckets will be removed.</p>			<p>Once a week, during the activity of amphibians</p>	<p>Engineer</p>
<p>43</p>	<p>Fauna protection</p>	<p>[II.22] Works conducted at spring mass migration places for amphibians identified by the Contractor's herpetologist will be made within a landline (with its width corresponding to the width of the migration corridor) with the exception of the period from 1 March to 31 May, i.e. upon the end of the main period of breeding migrations of this group of animals. These temporary enclosures of the above-mentioned corridors are designed to allow amphibians to reach their mating places and reduce their mortality (being run over by mechanical equipment). Fences - as recommended by the the Contractor's herpetologist also used in the period of autumn migrations in order to protect individuals moving to their wintering grounds. Fences will be placed within the following mileage:</p> <p>A. Section I:</p> <ul style="list-style-type: none"> a) at km 2+200÷2+350 (at the water-side), b) at km 2+600÷2+800 (at the water-side), c) at km 2+750÷2+850 (at the land-side), d) at km 3+850÷4+200 (at the land-side) and within a length of approx. 150 m on the right side of the access road at km 4 + 100 of the embankment, e) at km 4+750÷5+400 (at the water-side), f) at km 5+600÷5+700 (at the water-side), g) at km 6+150÷6+230 (at the water-side), h) at km 6+150÷6+300 (at the land-side), 	<p>Applies to the whole Works Contract – sections where are the watercourses and ditches</p>	<p>Visual monitoring, photographic documentation¹²³</p>	<p>Throughout the whole period of implementation of works</p> <p>Once a month</p>	<p>Contractor / Site Manager and Herpetologist</p> <p>Engineer</p>

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		i) at km 6+150÷6+250 (at the water-side), j) at km 6+650÷7+000 (at the land-side), B. Section San a) at km 1+450÷1+600 (at the land-side) and within a length of approx. 100 m along the right side of the local access road (which allows to reach the embankment) located at km around 1+600, C. Section II a) at km 0+000÷0+100 (at the water-side), b) at km 0+800÷1+150 (at the water-side), c) at km 0+920÷1+120 (at the land-side), d) at km 1+950÷2+000 (at the water-side), e) at km 1+950÷2+100 (at the land-side), f) at km 2+250÷2+050 (at the water-side), g) at km 2+850÷3+150 (at the water-side), h) at km 3+150÷3+300 (at the water-side), i) at km 4+500÷5+000 (at the water-side), j) at km 4+700÷5+000 (at the land-side) together with the double-sided fencing local of the local access road (which allows to reach the embankment) (at km around 4+900) within a length of approx. 100 m D. Section III a) at km 0+450÷0+550 (at the land-side), b) at km 1+300÷1+720 (at the land-side), c) at km 1+900÷2+000 (at the land-side). In case the Contractor's herpetologist considers it justified, the above-mentioned fences may be placed also at other sections specified by the Contractor's herpetologist. The design of these enclosures was specified in item 42.				
44	Protection of monument	[-] In km 4+880 of the embankment of the Vistula River (Section II, plot no. 1714/3, precinct Wrzawy) in the area of works impact there is a memorial site (mound with monument, around the monument is located the area of the old war cemetery of 1809). The Contractor's obligation shall be the protection of the memorial	Section II km 4+880 of the embankment	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of the construction works	Contractor / Site Manager

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		site for the period of works performance so that no damage of the object occurs as a result of the Works Contract realization.			Once a month	Engineer
45	Protection of memorial stone	[-] In km 6+400 of the embankment of the Vistula River (Section I, plot no. 203/3 precinct Witkowice) in the area of works impact there is a stone with commemorative plaque (thanks for involvement of the local community in the fight against flood) founded in 2005. The Contractor's obligation shall be the protection of the stone for the period of works performance so that no damage of the object occurs as a result of the Works Contract realization.	Section I km 6+400 of the embankment	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of the construction works	Contractor / Site Manager
					Once a month	Engineer
46	Control of the settlement and protection of the building to be demolished	[-] On the land plot No. 975 precinct Wrzawy, there is an abandoned residential building intended for demolition. This building should be inspected by the Contractor's ornithologist and Contractor's chiropterologist for bird and bat occupation. In case of settlement, take steps recommended by these experts to allow birds and bats to leave this shelter / nesting place and then secure the building against re-colonization until its demolition.	Section II, land plot No. 975 precinct Wrzawy	Visual monitoring, photographic documentation ¹²³	From the beginning of the work until the day of demolition, once every 2 weeks	Contractor / Site Manager and Ornithologist and Chiropterologist
					Once a month	Engineer
05 - REQUIREMENTS CONCERNING ENSURE THE ACCESS ROUTES TO THE CONSTRUCTION SITES						
47	Natural resource protection	[II.15] Transport of construction materials, aggregates and waste, as well as traffic of machines and vehicles shall be conducted on existing roads or designated temporary roads, established in such a way so as to reduce interfering with the habitat identified by the Contractor's botanist.	Applies to the whole Works Contract (embankment sections where existing roads are located that the Contractor will use)	Local inspection, recommendation formulation, checking the implementation for its correctness, preparing reports from completed activities, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Botanist
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
48	Noise protection	[-] Any activities related to transport of construction materials, aggregates and waste by trucks at the stage of Works Contract implementation shall be conducted only during the day i.e. from 06.00am to 10.00pm only.	Applies to the whole Works Contract	Visual monitoring, documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
49	Protection of social interests	[II.41] The access roads used for vehicle transport of aggregate should be maintained in good technical condition, and after the completion of construction works will be restored to a state not worse than before the implementation of the Works Contract. The Contractor will also be responsible for maintenance of exit routes in good technical condition.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
50	Protection of social interests	[-] During works performance the Contractor makes efforts to minimise the burdens for the vehicle traffic existing in the works area.	Sections where existing roads are located that the Contractor will use	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
51	Natural resource protection	[-] Parking of cars of the Contractor's employees may take place only in a designated area. It is prohibited to park in the area of habitat.	Applies to the whole Works Contract and surrounding	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager and Botanist
					Once a month	Engineer
52	Protection of social interests	[-] The Contractor is obliged to provide photographs of the whole work area with particular focus on the technical condition of the roads and buildings located in the vicinity of any roads used for transport of building materials. Before commencing the works, the Contractor shall carry out, with the Administrator present, an inspection in the area on the basis of which a report shall be prepared on the condition of the roads prior to access for construction purpose. Based on that, the Contractor will be obliged to restore their technical condition.	Applies to the whole Works Contract and surrounding	Visual monitoring, photographic documentation ¹²	Before works commencement	Contractor / Site Manager
					Before works commencement	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
53	Protection of social interests	[-] It is required to ensure human protection against increased vehicle traffic along roads used during construction works. At the time of works execution, the Contractor shall supply, install and operate all temporary safety devices, ensuring the safety of vehicles and pedestrians.	Sections where existing roads are located that the Contractor will use, and where temporary routes will be designated	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
54	Protection of natural resources	[-] The vehicle traffic should take place on the service roads preventing any damage to the near-by vegetation.	Sections where existing roads are located that the Contractor will use, and where temporary routes will be designated	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
55	Protection of social interests	[-] 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, 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. The Contractor shall immediately repair any damage at his own expense and also, if necessary, shall perform other works ordered by the Engineer.	Applies to the whole Works Contract and surrounding	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
56	Protection of social interests	[-] The Contractor is obliged to agree with road management authorities of the traffic arrangement and works security plan. The Contractor is obliged to organize 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 organization, etc.).	Sections where existing roads are located that the Contractor will use	Monitoring of documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
57	Protection of social interests	[-] The Contractor shall respect the statutory limitations of speed and loads per vehicle axle during transport of materials and equipment to and from the construction site. The Contractor shall also obtain any necessary permits from authorities, for transport of non-standard loads and shall constantly inform the Engineer about each case of such a transport.	Sections where existing roads are located that the Contractor will use	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
06 - REQUIREMENTS FOR CUTTING OUT TREES AND SHRUBS						
58	Tree protection, bird protection	[Il.17] The felling of approx. 2910 trees and shrubs with its area of approx. 3.12 ha will be limited to the area within the project demarcation lines. Moreover, this felling will be conducted within the period from 16 October to 15 February.	Applies to the whole Works Contract	Local inspections, environmental team report, photographic documentation ¹²³	Through the period of conducting the works related to felling (from 16.10 to 15.02)	Contractor / Site Manager and Contractor's environmental team
					Once a month in the designated periods	Engineer
59	Fauna protection	[-] In case of intention of cutting trees with their breast height above 50cm, perform with the participation of Contractor's specialists: - entomologist – control of the trees for occupancy by the protected beetle species, - chiropterologist – control for occupancy bats presence control. In case when the presence of beetles is established (larval or adult	Applies to the whole Works Contract	Local inspection, recommendation formulation, checking the implementation for its correctness, preparing reports from completed	Once before felling	Contractor/ Entomologist and chiropterologist
					In case of observing the	Engineer Contractor/ Entomologist and chiropterologist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		forms), permission for felling trees can be conditioned only by technical or process conditions after obtaining by the Contractor - as required by law - the permit from the competent authority to destroy habitat of protected species (in co-operation with entomologists) where appropriately-cut fragments of trees will be moved, (according to the NEPA, Act from 16 April 2004 – article 56). In case of observing the presence of bats in trees to be cutted, suspend cutting temporarily and implement the Contractor chiropterologist's recommendations which are adequate to the current atmospheric conditions and the identified species of bats.		activities, photographic documentation ¹²³	presence of protected species monitoring during permission issue After permission obtaining once during felling	Engineer Contractor/ Entomologist and (or) chiropterologist Engineer
60	Invertebrate protection	[II.27] In case, valuable species of saproxylobionts (including, among others: Hermit beetle) are found within trees projected for removal, it is necessary to take out rotten wood with them at their larval or other preimaginal stages and transfer them to another tree (with visible wood depreciation) located nearby. These works will be performed under the supervision of the Contractor's entomologist after obtaining by the Contractor a respective permit of RDOŚ/GDOŚ (according to NEPA - Art. 56 of the Act of 16 April 2004).	Applies to the whole Works Contract	Local inspection, recommendation formulation, preparing application and obtaining RDOŚ decision, replanting plants, checking the implementation for its correctness, preparing reports from completed activities, submitting a report to RDOŚ after works completion, photographic documentation ¹²³	Throughout the whole period of implementation of works During the transfer	Contractor / Site Manager and Entomologist Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
07 - REQUIREMENTS AT THE IMPLEMENTATION OF WORKS STAGE						
61	General principles for carrying out works	[-] Flood Management Plan should be provided for the duration of construction works, specifying the relation between the time of commencement of the evacuation or protection of the equipment and the occurrence of a certain hydro-meteorological situation. This plan must be approved by the Engineer.	Applies to the whole Works Contract	Checking whether the plan was prepared and accepting its substantive content ¹²	Execution before the beginning of works, one-time (possible update)	Contractor / Site Manager
					One-time after preparation and after possible update	Engineer
62	General principles for carrying out works	[II.7] Construction works should be conducted outside the flood risk season. The Contractor will be obliged to establish communication with IMGW-PIB to receive current information on weather forecast. In case of any warning about high water, the Contractor shall immediately notify the Engineer and the Employer and shall take appropriate actions according to the procedures described by the Flood Management Plan.	Applies to the whole Works Contract	Visual monitoring, documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
63	Land surface and landscape protection, habitat protection	[II.10] Ground masses required to accomplish the Works Contract will come from external or internal (in case when the Contractor has his own mine) suppliers; it is not projected to collect ground from within the inter-embankment area. It is concluded on the basis of the EIA Report that within 20 km from the projected Works Contract there are several aggregate mines which can provide necessary ground masses with specified parameters. Then supplies of ground masses may run independently, which is its key advantage.	Applies to the inter-embankment	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor/ Site Manager
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
64	Contractor's environmental supervision team	<p>[II.35] The construction works realized by the Contractor will be conducted under the supervision of an experienced Contractor's environmental team:</p> <p>a) team will be composed of ornithologist, botanist, herpetologist, entomologist and chiropterologist; this Contractor's environmental supervision will be performed by specialists with higher education in the field of biology, forestry, environmental protection who has run at least two professional wildlife supervisions during works in the field of ornithology / botany / herpetology etc., respectively (in case a given specialist has experience in the field of for example botany and herpetology it is possible to combine these two functions by one person);</p> <p>b) The Coordinator / Team Leader of the environmental team will be appointed;</p> <p>c) throughout the duration of the Works Contract the Contractor's environmental team will oversee the observance of the terms and conditions of the EMP and the environmental decision.</p>	Applies to the whole Works Contract and neighborhood	Depending on the needs: local inspection, recommendation formulation, preparing application and obtaining RDOŚ decision, replanting plants, checking the implementation for its correctness, preparing reports from completed activities, submitting a report to RDOŚ after works completion, photographic documentation ¹²³	<p>Throughout the whole period of implementation of works</p> <p>Once a month</p>	<p>Contractor / Contractor's environmental team</p> <p>Engineer</p>
65	General principles for carrying out 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 environmental decisions and EMP and so that they do not affect species under protection which are found on the Task implementation area and in its vicinity.	Applies to the whole Works Contract	Checking whether the schedule was prepared and accepting its substantive content ¹²	<p>Execution before the beginning of works, one-time (possible update)</p> <p>One-time after preparation and after possible update</p>	<p>Contractor / Site Manager and Contractor's environmental team</p> <p>Engineer</p>

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
66	Trees and shrubs protection, Nature protection	[II.18] It is unacceptable to damage trees and shrubs which are not intended for felling and near which earthworks related to the Works Contract are conducted. During construction works it is not allowed to destroy plants outside the Contract area.	Applies to the whole Works Contract and neighborhood	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor/ Site Manager and Botanist
					Once a month	Engineer
67	Trees and shrubs protection	[II.18] Fungicides will be applied to protect wounds of trees and shrubs after technical cuts and for potential maintenance of greenery damaged during the execution of works.	Applies to the whole Works Contract and neighborhood	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor/ Site Manager and Botanist
					Once a month	Engineer
68	Employee accidents during works	Work of machinery and equipment within the embankment must be carried out in a way that does not endanger the safety of persons and property, excluding their overturning, sliding or descent into the slope of the embankment. Machinery and tools must be used according to their intended use.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor/ Site Manager
					Once a month	Engineer
69	General principles for carrying out works	[II.4] No repairs and maintenance of facilities and equipment (e.g. oil replacement etc.) will be conducted at the construction site. The places where the machines are to be refueled must be equipped with the appropriate amount of sorbent. Workers must be trained how to deal with contamination of soil or water.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor/ Site Manager
					Once a month	Engineer
70	Environmental protection	[II.11] In the course of the Works Contract no works may interfere in the Vistula riverbed and its riverside vegetation; then their interference into the inter-embankment area will be limited to its marginal side which is directly adjacent to the planned embankment. The Works Contract will be limited to the area directly occupied for the Works Contract i.e. the redeveloped section of the embankment with a technological landline margin within its demarcation lines and the construction site facilities area.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's environmental team
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
71	Habitats protection	[II.34] Any works interfering with watercourses, ditches and their beds should be performed beyond the period from March 1 to June 30 and conducted from their bank positions.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's environmental team
					Once a month	Engineer
72	Environmental protection	[II.8] All earthworks should be conducted at riverside positions, first from one river bank and then from the other, in the way which ensures keeping the base flow.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's environmental team
					Once a month	Engineer
73	Environmental protection	[II.9] Drainage water from construction trenches, prior to their introduction into the environment, should be cleaned (due to the high content of total suspension).	Applies to the whole Works Contract	Visual monitoring, (turbidity examination – before works beginning and once a week during works execution), photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor/ Site Manager
					Once a month	Engineer
74	Ornithofauna protection	[II.20] The section from the estuary of the San river downstream to the village of Zawichost will be completely excluded from works in the period from April 1 to the end of June. At this section heavy construction works i.e. earthworks conducted with the use of heavy construction equipment, transport and storage of the ground masses will be performed in the period from 1 August to the end of January. Lighter works i.e. clean-up works without the use of heavy construction equipment and high-capacity trucks may be used throughout the year except for the period from April to June.	Section from the estuary of the San river downstream to the village of Zawichost	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Ornithologist
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
75	Habitats protection	[II.28] It is prohibited to eliminate reeds at the Strachocka river and any interference into them. No construction works will be conducted by the Contractor in the period from 1 April to 31 July within a distance of less than 50 meters from them.	Starchocka river basin	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager and Ornithologist
					Once a month	Engineer
76	Fauna protection	[II.21] Works interfering into breeding sites for amphibians identified by the Contractor's herpetologist (e.g. water reservoirs, drainage ditches, drains from embankment water locks, places of periodic water stagnation) will be conducted beyond the period from 1 March to 30 June, then works interfering into wintering places for amphibians identified by the Contractor's herpetologist will be conducted with the exception of the period from 1 November to end of February. Works interfering with breeding and wintering sites for amphibians should be performed in the period from 1 July to the end of October.	Applies to the whole Works Contract – sections where are the watercourses and ditches	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Herpetologist
					Once a month	Engineer
77	Fauna protection	[II.23] Wheel tracks and other ground depressions (emerged at the construction site) where water can be collected will be immediately eliminated in order to prevent amphibians from their spawn deposition and settlement at these places. All amphibian habitat which will emerge at the construction site i.e. deep trenches with stagnant water, deep wheel tracks, will be - prior to their backfilling - checked for the presence of amphibians. In case any amphibians are found, it is necessary to drain water and - upon lowering the water level - penetrate the bottom and catch animals under the Contractor's herpetological supervision. Any caught animals should be transferred to appropriate (for individual species) habitats. Dried trenches, wheel tracks should be backfilled just after these animals are caught, in the presence of the Contractor's herpetologist.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Herpetologist
					Once a month, if necessary	Engineer
78	Fauna protection	[II.24] Wetlands, which are the habitat of amphibians, prior to their elimination should be checked by the Contractor's herpetological supervision for the presence of animals. Wetlands will be	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Herpetologist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		eliminated under the Contractor's herpetological supervision. Works will be conducted in September. Any caught animals should be transferred to their - appropriate for individual species - habitats. In case it is necessary to destruct habitats which are wintering places for amphibians, at the beginning of September for the duration of works, these habitats should be enclosed in order to restrict access to them by winter migratory birds.			Once a month	Engineer
79	Contractor's environmental supervision team	[II.35] Contractor's herpetological supervision - along the entire section of the conducted works - will catch the amphibians - catchments (from taps) should continue throughout the activity of amphibians; caught amphibians will be transferred to their suitable habitats located beyond the construction site as selected by the Contractor's herpetological supervision; In case of amphibians migrated for breeding "in amplexus", they will be transferred in pairs; amphibians should preferably be transferred with soft water plants, moss or leaves, preferably in humid conditions than in water; if this transfer occurs in water, its amount has to be adapted to its individuals and their sizes.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works	Contractor / Site Manager and Herpetologist
					Once a month	Engineer
80	Fauna protection	[II.26] Trenches and structures which can be a trap for small animals, mostly amphibians, should be appropriately secured by the Contractor (e.g. tightly cover after day's works). Moreover, the above-mentioned places will be checked daily by the Contractor and, in case of any animals trapped in them, they will be caught and transferred to their - appropriate for given species - habitats beyond the area of works.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works, everyday	Contractor / Site Manager and Contractor's environmental team
					Once a week	Engineer
81	Fauna protection	[II.35] Throughout the duration of the Works Contract the Contractor's environmental team will oversee the observance of detection and identification of animal species within the area of	Applies to the whole Works Contract	Local inspection, recommendation formulation,	Throughout the whole period of implementation of works	Contractor / Contractor's environmental team

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		construction works and will prepared application for derogation decisions in case of protected species (according to NEPA - Art. 56 item 1 and 2 of the Act of 16 April 2004).		preparing application and obtaining RDOŚ decision, replanting plants, checking the implementation for its correctness, preparing report from executed measures (Control Data Sheet for Implementation of Mitigation Measures after each visit) preparing Monthly reports, preparing and submitting a report to RDOŚ after works completion, photographic documentation ¹²³	Depending on the needs	Engineer
82	Flora protection	[II.35] Throughout the duration of the Works Contract the Contractor's environmental team will oversee the observance of detection and identification of plant species within the area of	Applies to the whole Works Contract	Local inspection, recommendation formulation,	Throughout the whole period of implementation of works	Contractor / Botanist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>construction works and will prepared application for derogation decisions in case of protected species (according to NEPA - Art. 56 item 1 and 2 of the Act of 16 April 2004).</p> <p>If let by technical conditions, specimens of protected species will be transferred by the Contractor to their suitable habitats.</p>		<p>preparing application and obtaining RDOŚ decision, replanting plants, checking the implementation for its correctness, preparing report from executed measures (Control Data Sheet for Implementation of Mitigation Measures after each visit) preparing Monthly reports, preparing and submitting a report to RDOŚ after works completion, photographic documentation¹²³</p>	<p>Depending on the needs</p>	<p>Engineer</p>
83	Fungi protection	<p>[-] Throughout the duration of the Works Contract the Contractor's environmental team will oversee the observance of detection and identification of fungi species within the area of construction works.</p>	<p>Applies to the whole Works Contract</p>	<p>Local inspection, recommendation formulation,</p>	<p>Throughout the whole period of implementation of works</p>	<p>Contractor / Botanist</p>

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		In case of identifying specimen of any protected plants – after obtaining a respective permit of relevant nature protection authority (according to NEPA - Art. 56 of the Act of 16 April 2004) – transfer them to a habitat that fits a particular species beyond the work area. The botanist will indicate optimal technology and the site for replanting.		preparing application and obtaining RDOŚ decision, replanting plants, checking the implementation for its correctness, preparing report from executed measures (Control Data Sheet for Implementation of Mitigation Measures after each visit) preparing Monthly reports, preparing and submitting a report to RDOŚ after works completion, photographic documentation ¹²³	Depending on the needs	Engineer
84	Contractor's environmental	[II.35] Within the framework of the Contractor's environmental supervision it is indicated at least 8 visits per months are recommended under the wildlife supervision; upon every visit,	Applies to the whole Works Contract and neighborhood	Depending on the needs: local inspection,	Throughout the whole period of implementation of works	Contractor / Contractor's environmental team

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
	supervision team	there will be a description on the state, conditions and possible indications for the contractor together with by photographic documentation drawn up in the form of Control Data Sheet for Implementation of Mitigation Measures.		recommendation formulation, preparing application and obtaining RDOŚ decision, replanting plants, checking the implementation for its correctness, preparing report from executed measures (Control Data Sheet for Implementation of Mitigation Measures after each visit) preparing Monthly reports, preparing and submitting a report to RDOŚ after works completion, photographic documentation ¹²³	Once a month	Engineer
85	Contractor's environmental	[II.35] The Contractor's herpetological supervision will be conducted on a continuous basis during the spring and autumn migration of amphibians; upon every visit, there will be a description on the	Applies to the whole Works Contract and neighborhood	Depending on the needs: local inspection,	Throughout the whole period of implementation of works	Contractor / Herpetologist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
	supervision team	state, conditions and possible indications for the contractor together with by photographic documentation drawn up in the form of Control Data Sheet for Implementation of Mitigation Measures.		recommendation formulation, preparing application and obtaining RDOŚ decision, replanting plants, checking the implementation for its correctness, preparing report from executed measures (Control Data Sheet for Implementation of Mitigation Measures after each visit) preparing Monthly reports, preparing and submitting a report to RDOŚ after works completion, photographic documentation ¹²³	Once a month	Engineer
86	Noise protection	[II.38] The construction works related to the Works Contract implementation will be conducted daytime i.e. from 6.00 AM to 10.00 PM only.	Applies to the whole Works Contract	Visual monitoring, documentation ¹²	Throughout the whole period of implementation of works Once a month	Contractor / Site Manager Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
87	Noise protection	[II.38] At the stage of performance of construction works, the following technical and organisational measures should be applied: keep machines which emit noise and vibrations during the Works Contract implementation in good conditions which will allow for the observance of the standards set out in the applicable detailed regulations.	Applies to the whole Works Contract	Visual monitoring, documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
88	Noise protection	[II.40] In order to reduce a level of noise emitted to the environment during construction works conducted close to the existing farm buildings and single family houses i.e. acoustic areas protected (allowed noise values are respectively $L_{Aeqd} = 55$ dB for a farm building and $L_{Aeqd} = 50$ dB for single family house for 8 the worst hours during the day), it is necessary to use portable sound barriers with their height of min. 4.0 m (applies to farm buildings located near redeveloped embankment of the Sections I÷III - distance from the building about 10 m to the border of the site and single-family housing development located near the embankment of section III - distance to the building about 70 m).	Applies to the whole Works Contract and neighborhood	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
89	Noise protection	[-] In the areas under acoustic protection and the working sites adjacent to these areas, in order to mitigate the nuisance for inhabitants and environment, it is allowed to use only pumping engines equipped with soundproof housing.	Applies to the whole Works Contract and neighborhood	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
90	General principles for carrying out works	[II.39] In case of conducting construction works which cause the transmission of vibration exceeding the acceptable standards, appropriate methods aimed to reduce nuisance should be undertaken (in particular in respect to residential premises close to the embankments in the field of their technical security and comfort for sanitary maintenance and use).	Applies to the whole Works Contract and neighborhood	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
91	Air protection	[II.42] It is required to seek to minimise the environmental impact of the Works Contract during its implementation through elimination of idling operation of combustion engines of machinery and transport equipment, among others during stops, breaks, etc.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
92	Soil and water protection	[-] Equipment, plant and vehicles used for construction works must be placed in dedicated parking spaces provided with protective measures against spillage of oil derivatives to the soil and water environment. If the equipment, plant and vehicles are not in use, they must be parked in these dedicated places.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
93	Soil and water protection	[II.43] Waste generated during the Works Contract implementation will be stored separately in containers at the construction site facilities.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
94	Protection against noise, protection of the atmosphere	[-] Whenever possible the works should be carried out section by section, i.e. after completing works in a given section and its reclamation, works should begin at the next embankment section intended for extension.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
95	Water and soil protection	[-] During construction works, the soil-water environment should be protected against contamination with substances used, sewage, or waste generated in connection with executed works.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>Grease and fuel to be stored at adequately prepared place with relevant sealing degree and equipped with sorbent to neutralize petroleum substance.</p> <p>In the event of spillage of oil derivative substances, it must be promptly removed and contaminated soil layers must be immediately eliminated (by a specialized company) and managed in accordance with applicable law. Such places must be brought back to their initial condition.</p> <p>In the event of oil derivative substance spillage to surface water, the Contractor is obliged to ensure mechanical collection of the substance from the water surface and its neutralization or disposal.</p>			Once a month	Engineer
96	General principles for carrying out works	[-] The Contractor should choose a place for storing topsoil which will secure it against pollution, being driven through and being tamped down.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
97	General principles for carrying out works	[-] Topsoil should be stored and protected in a way enabling its re-use.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
98	Environmental protection	[-] For works performance, it is necessary to use only non-hazardous materials which are not burdensome to the environment.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
99	Fauna protection	[-] No substance which could be lethal to animals can be used for execution of works (excluding substances necessary for proper operation of construction machines).	Applies to the whole Works Contract	Visual monitoring, documentation ¹²	Throughout the whole period of implementation of works	Contractor / Contractor's environmental team

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
					Once a month	Engineer
100	General principles for carrying out works	[-] Earthworks shall be carried out so that no damage is caused to regulatory structures. The Contractor shall ensure the flow possibility of embankment culverts throughout the duration of the works.	Applies to the whole Works Contract	Lists of technical review, reports from the reviews ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
101	Archaeological supervision	[-] Contractor is obliged to ensure permanent archaeological supervision during of earthworks.	Applies to the whole Works Contract	Visual monitoring, archaeological supervision documentation ¹²	Throughout the whole period of implementation of works	Contractor / Contractor's archaeological supervision
					Once a month	Engineer
102	Archaeological findings	[-] In the case of discovery of immovable structures or mobile archaeological monuments the Contractor is obliged to notify immediately the Podkarpacki Monuments Conservation Officer as well as the Employer and the Engineer. During Works' implementation the Works Contractor shall comply with guidelines of the Monuments Conservation Officer. Vide: a letter from the Voivodeship Office for the Monuments Conservation, sign: UOZ-T-1.5183.69.2016 dated 16.11.2016 (Appendix No. 4 (c) to EMP).	Applies to the whole Works Contract	Visual monitoring, archaeological documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager and Contractor's archaeological supervision
					Once a month	Engineer
103	Unexploded ordinances	[-] Contractor is obliged to ensure permanent sapper supervision during of earthworks regarding checking and cleaning the area from dangerous military items.	Applies to the whole Works Contract	Visual monitoring, sapper supervision documentation ¹²	Throughout the whole period of implementation of works	Contractor / Contractor's sapper supervision
					Once a month	Engineer

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
104	Health and Safety	[-] HIV-AIDS Prevention. The Contractor shall conduct an HIV-AIDS awareness programme and shall undertake such other measures to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.	Applies to the whole Works Contract	Verification of the Contractor documentation	Throughout the whole period of implementation of works	Contractor / OHS supervision
					Once a month	Engineer
105	Soil and water protection	[-] It is necessary to provide training to all the employees with regard to: - maintaining appropriate hygienic conditions within the area of the construction site and its direct surrounding; - prohibition of penetrating the "Wisła pod Zawichostem" Nature Reserve as well as other enclosed natural habitats; - prohibition of the burning of open fire both inside the construction site and its surrounding, this is understood as the fires, the burning of waste or branches from the cutting trees or shrubs. Appropriate penalties for noncompliance with these rules should be included in the Contractor's work regulations.	Applies to the whole Works Contract	Visual monitoring, supervision documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
106	Soils, surface water and air protection	[-] The type and working order of such equipment must ensure the protection of soil, surface waters and ground waters against pollution, dust and gas emission to the air and noise emission.	Applies to the whole Works Contract	Visual monitoring, supervision documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
107	Air protection (Protection against dusting)	[-] Limit dust generation, in dry periods, caused by the means of transport among others by: • using tarpaulins when transporting aggregate and bulk materials, • cleaning vehicle wheels before entering the public roads,	Applies to the whole Works Contract	Visual monitoring, supervision documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<ul style="list-style-type: none"> • cleaning technological internal roads surface, • prevention of contamination of local roads with sand and other material transported by vehicles. <p>Bulk materials and construction aggregate for use in the construction phase should be protect against the blowing and excessive dusting from the surface both during storage and during incorporation (particularly in the vicinity of agricultural crops and built-up areas) e.g. by using tarpaulins or sprinkling of ground surfaces during rain-free periods.</p>			Once a month	Engineer
108	Air protection (Protection against dusting)	[-] It is necessary to apply required measures limiting dust emission at the time of construction of the anti-filtration barrier using Deep Soil Mixing technology.	Applies to the whole Works Contract	Visual monitoring, supervision documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager
					Once a month	Engineer
109	Environment, human health and safety protection	[-] The Contractor and Contractor's environmental team is responsible for training of the rules and conditions of the EMP for Contractor's management and engineering-technical personnel.	Applies to the whole Works Contract	Time sheet, teaching materials, reports from trainings ¹²	Throughout the whole period of implementation of works	Contractor / Contractor's environmental team
					Once a month	Engineer
110	Periodic meetings environmental team	[-] During the implementation of the tasks arising from the EMP monthly team meetings of PIO, Consultant and Contractor will take place to discuss and monitor the implementation of mitigating and monitoring measures.	Applies to the whole Works Contract	Minutes of meetings	Throughout the whole period of implementation of works	PIU, Consultant and Contractor / Contractor's environmental team
					Once a month	Engineer
111	Contractor's environmental supervision team	[II.35] There will be monthly reports prepared by the Contractor which will cover measures conducted under the Contractor's environmental supervision; both in Polish and in English, in paper and electronic versions with reference to the obligations required by EMP and other contractual documents. These documents will be	Applies to the whole Works Contract	Reports ¹²³	Throughout the whole period of implementation of works, everyday	Contractor / Site Manager and Contractor's environmental team

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		<p>subject to the approval of the Engineer and the Employer.</p> <p>The reports will be contained documents confirming the participation of specialists (e.g. memorandum of understanding and/or a declaration of a specialist confirming the proper performance of measures) together with photographic documentation.</p> <p>The Contractor will also prepare a commencement report, ad-hoc reports (as needed) and a closure report.</p>			Once a week	Engineer
08 - REQUIREMENTS AFTER COMPLETION OF WORKS						
112	Soil protection, flora protection	<p>[II.32] Upon the completion of earthworks, it is necessary to immediately clean up the area covered by these works: sow any damaged ground surfaces, grass the redeveloped section of the embankment and sow with a mixture of indigenous plants conforming habitat requirements in order to minimise surface erosion and suspension-forming fractions fail to reach waters</p>	Applies to the whole Works Contract	Visual monitoring, recommendation and reports from implementation botanist's recommendation photographic documentation ¹²³	Throughout the whole period of implementation of order works and sowing	Contractor/ Site Manager and Botanist
113	Recommended environmentally friendly technical solutions	<p>[III.7] It is necessary to make plantings upon the completion of works within the reinforcements. In order to strengthen the area of these plantings, jute meshes are recommended to protect crops and seedlings exposed to water erosion. Plantings should be made taking into account the following conditions:</p> <p>a) use plants from the same catchment area for planting aquatic plants,</p> <p>b) use local seeding material or/and grass fragments (obtained prior to the start of works) for seeding lands being exposed during works,</p> <p>c) use self-seedlings (preserved in the course of preparatory works) as much as possible in order to make woodlots.</p>	Applies to the whole Works Contract	Visual monitoring, recommendation and reports from implementation botanist's recommendation photographic documentation ¹²³	After finishing of reinforcements execution	Contractor/ Site Manager and Botanist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
					Once a month	Engineer
114	Contractor's environmental supervision team	[II.35] Report containing information concerning the method and scope of the performance of mitigation measures, and also documents confirming the participation of specialists (e.g. memorandum of understanding and/or a declaration of a specialist confirming the proper performance of measures together with photographic documentation) should be prepared by the Contractor within 6 months from the date of works completion. Upon approval of the report by the Engineer and Investor the report will be submitted to the Regional Director for Environmental Protection in Rzeszów.	Applies to the whole Works Contract	Report to RDOS ¹²³	Once, 6 months from the date of works completion	Contractor / Site Manager and Contractor's environmental team
					Once, 6 months from the date of works completion	Engineer
115	General principles of nature protection - prevention and elimination of invasive species	[II.33] For a minimum period of 5 years from the completion of construction works the area covered by the project should be monitored for the occurrence of invasive foreign plants. In case such species are found, it is required to take actions to remove them. This monitoring should be run while the embankments are mowed. In case such conducted treatments referring to the embankments and their maintenance (e.g. mowing) are not effective to remove the above-specified plants, the botanical supervision unit which supervises the area will specify measures aimed to eliminate the above species. This monitoring and elimination of the above-specified species should cover the expanded embankments but also the area which is adjacent to them which is not less than the one located within the project demarcation lines. Based on such botanical monitoring and its results the appropriate measures will be taken to eliminate these plants.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	In Defect Notification Period and Guarantee Period then Designated organizational unit of PGWWP	Contractor / Site Manager and Botanist
					Twice a year in vegetation period during embankments mowing	Engineer
116	Land area and landscape protection	[-] Places sowed with grass mixes should be taken care of by means of, among others, twofold mowing of flood embankments during the year and removal of hard lichens. This activity includes period of	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	After the construction works are completed.	Contractor / Site Manager and Botanist

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
		construction works realization and also the Defect Notification Period. Rules of mowing are indicated below in item 116.			Once after the construction works are completed.	Engineer
117	Land area and landscape protection	[II.36] The embankment at the operation stage will be mowed: a) within Section I - mowing at the embankment water-side slope will start not earlier than on 15 June, then at the embankment water-side slope - not earlier than on 1 July, b) within Section II, II and Section San River - mowing will start not earlier than 1 June, c) the embankment should be mowed in turns i.e. on 1 June the embankment will be mowed along a length of, for example, 300 metres, then further 300-metre sections will be mowed with a delay two weeks; in case of necessity (to remove invasive vegetation) it is acceptable to mow the embankment at an earlier date, in consultation with the Contractor's environmental supervision team.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	Throughout the whole period of implementation of works, in Defect Notification Period and Guarantee Period then Designated organizational unit of PGWWP	Contractor/ Site Manager and Botanist
					During mowing	Engineer
118	Buildings protection	[II.39] The existing buildings and structures should be inventoried upon works completion. The Contractor will be accountable for accomplishment.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²	Once after the construction works are completed.	Contractor / Site Manager
					Once after the construction works are completed.	Engineer
119	Soil protection	[-] After completing all construction works, areas temporarily occupied for access roads, facility and storage yards should be restored to their prior condition.	Applies to the whole Works Contract	Visual monitoring, photographic documentation ¹²³	After the construction works are completed.	Contractor / Site Manager and Contractor's environmental team

No.	Element / Zone of monitoring	The object of monitoring (Compliance with obligations or prohibitions)	Place of monitoring	Method of monitoring	Period and frequency of monitoring	The monitoring unit
					After the construction works are completed.	Engineer
10 - GENERAL REQUIREMENTS						
120	Legislation in the country where the Agreement is to be implemented	[-] Contractor is obliged to knowledge and adherence to all laws currently binding in the country where the Agreement is to be implemented in the period of construction and assembly works and the Defects Notification Period. None of the provisions above do not exempt the Contractor from the application of the law.	Applies to the whole Works Contract	Monitoring substantive knowledge of the law, written documentation ¹²	Throughout the whole period of implementation of works	Contractor / Site Manager or authorised person
					Once a month	Engineer