

Appendix 2 - Plan of monitoring measures

This Appendix to Environmental Management Plan for the Odra-Vistula Flood Management Project - Contract 3B.1 Flood protection Sandomierz, presents monitoring measures relating to monitoring of the environmental impact of the Task and execution of mitigation measures indicated in Appendix 1. The data contained in the following tables are a list of monitoring measures to be executed by the Contractor and the Engineer throughout the effective term of the Contract 3B.1.

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
01 - RULES CONNECTED WITH PROPERTY ACQUISITION						
1.	Land and landscape protection	Area of occupation must be limited to the necessary minimum as well as land surface transformation during the works carried out.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
2.	Land and landscape protection	The stage of construction works must be preceded by preliminary works involving preparing the area for the Task. i.e. preparing the places for storing building materials, for site facilities, etc. and allocating and preparing (and consulting with the road administrators) of traffic routes for machines and vehicles.	All work areas	It is necessary to limit as much as possible the area of temporary occupation.	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
3.	Land and landscape protection	It is necessary to limit as much as possible the area of temporary occupation.	All work areas	It is necessary to limit as much as possible the area of temporary occupation.	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
02 - MEASURES TO BE PERFORMED PRIOR TO WORKS COMMENCEMENT						
4.	General conditions concerning nature protection	Before commencement of the works a survey of permanently and temporarily occupied sites should be carried out, intended for determining of an up-to-date positions of protected plant species and plant species placed on national and regional red lists of endangered species, as well as identification of places of potential presence of these species.	All work areas	Visual monitoring, photo documentation, the submission and review of the natural inventory results	At the stage of preliminary works	Contractor - phytosociologist/botanist
					Once at the stage of preliminary works	Engineer
5.	General conditions concerning nature protection	The Contractor (if necessary - in proportion to the results of the conducted survey) shall obtain all necessary permits for deviation from prohibitions in relation to the protected plant species issued by RDOŚ/GDOŚ (in accordance with Article 56, Paragraph 1 and 2 of the Act of 16 April on environmental protection).	All work areas	Contractor's confirmation of the performance of activities in the annual Report on the Contract execution, attached with copies of potential motions (depending on the natural inventory results), reports prepared by experts in natural environment, etc.	At the stage of preliminary works	Contractor - phytosociologist/botanist
					Once at the stage of preliminary works	Engineer
6.	General conditions concerning nature protection	Trees and shrubs not intended for felling, growing in the vicinity of the Task implementation area and at risk of being damaged due to vehicle traffic, equipment handling, etc. must be protected against damage, e.g. by covering with wooden planks around the tree trunks up to the minimum height of 1.5 m.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor phytosociologist/botanist

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
7.	General conditions concerning nature protection	In the event of the necessity to transfer plant species, the Contractor is obliged to first – plan the activities, obtain relevant permits and then effectively carry out those activities, as well as implement other measures indicated in the permit (i.e. preparing reports and submitting them to permitting authorities).	All work areas	Confirmation of implementation of measures in Contractor's Monthly Report of Contract Implementation, including copies of submitted applications (subject to results of nature's survey), Specialist's Reports, etc.	During preliminary works stage One time during preliminary works stage	Contractor – Contractor's environmental team Engineer
8.	General conditions concerning nature protection	In the event of damage to trees, the necessary maintenance measures to be introduced immediately by the Contractor under the supervision of Contractor's environmental team to limit effects of the damage.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation, reporting once a month On permanent basis during the whole period of works implementation, reporting once a month	Contractor phytosociologist/botanist Engineer
9.	Protection of archaeological values	Prior to the commencement of works, the Contractor shall enable the qualified person to carry out all necessary archaeological survey in the places of discovered archaeological sites. This will ensure the protection and removal of valuable objects and other elements of historical value from the site and will enable the performance of specific works.	All work areas	Visual monitoring, photo documentation, reports	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Contractor – Contractor's archaeological supervision Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
10.	Human health and safety protection	Before commencement of the works involving vibrations, which could cause inconvenience for the neighboring inhabitants or damage to the buildings located near the works areas there should be carried out a survey of existing buildings with particular focus on cracks and damages, and during the afore-mentioned works the condition of the buildings should be monitored.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
11.	General conditions concerning nature protection	The Contractor's environmental team shall include the following experts: phytosociologist/botanist, herpetologist, ornithologist, chiropterologist, entomologist and water protection expert. The Contractor's environmental team will be responsible for the proper implementation of mitigation measures for the environment during construction works. Environmental supervision experts must be accepted by the Engineer before civil works execution.	All work areas	Contractor's confirmation of the performance of activities in the annual Report on the Contract execution, attached with site inspection records, reports prepared by experts in natural environment, etc.	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
12.	Sapper supervision	Prior to the commencement of works, the Contractor shall carry out a field inspection on the area of works in terms of the presence of unexploded shells.	All work areas	Visual monitoring, photo documentation, tests with a specialist equipment, sapper supervision report	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor - authorised sapper unit

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month (Monitoring for implementation of EMP records in the range of sapper supervision)	Engineer
13.	General conditions concerning nature protection - prevention and elimination of invasive species	Prior to commencement of the construction works, the Contractor should carry out a site inspection of construction sites attended by phytosociologist/botanist in order to locate the presence and estimate population of invasive plants (except for Small balsam Impatiens parviflora). After locating and visibly marking the places where invasive plants grow, the Contractor shall take preventive actions during the implementation of the Contract, which will reduce spreading of these plants, including, among others, removing humus 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 humus with topsoil overgrown with local native vegetation.	All work areas	Visual monitoring, photo documentation, reports	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor phytosociologist/botanist
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
14.	Rules of procedure for dredging channel beds	Prior to the construction works in the areas of the planned dredging of channel beds, storage reservoirs and removing sediments from the channels, the Contractor shall carry out control tests and examine sediments and define their quality in accordance with applicable law (pursuant to the Act of 14 December 2012 on waste and relevant executive acts). Such tests shall be implemented by an accredited laboratory.	Structures: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station, Flood protection within the area of the Struga A watercourse together with an alteration and expansion of the pumping station "Nadbrzezie", Construction of the water pumping station in Szewce, Expansion of the water pumping station in Zajeziorsze.	Verification of the Contractor's documents	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – water protection expert
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
15.	Rules of procedure for dredging channel beds	It is necessary to examine the quality of the excavated deposit (from channel beds and storage reservoirs). If contaminated sediments are discovered (exceeding values of permissible substance concentrations), they must be removed and handed over to entities holding adequate permissions for their further use. In case of finding slightly contaminated soil it is possible to restore them and hand over to natural person or to organizational units who are not contractors in terms of applicable rules, for further use.	Structures: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station, Flood protection within the area of the Struga A watercourse together with an alteration and expansion of the pumping station "Nadbrzezie", Construction of the water pumping station in Szewce, Expansion of the water pumping station in Zajeziorsze.	Verification of the Contractor's documents	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
03 - REQUIREMENTS CONCERNING THE ACCESS ROUTES TO THE CONSTRUCTION SITES						
16.	Human health and safety protection	The Contractor shall ensure access routes for rescue teams (ambulance, fire brigade, etc.) for the entire duration of the works, marking out roads, exits, passages for pedestrians and parking for vehicles used on the building site.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
17.	Human health and safety protection	The Contractor will provide traffic arrangement design for the duration of the Works, in accordance with the provisions of Technical Specifications and requirements of Roads Department regarding transport and conditions of roads use.	All work areas	Visual monitoring, photo documentation, permits obtained, Contractor's letters	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
18.	Human health and safety protection	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.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
19.	Land and landscape protection	The vehicle traffic should take place on the service roads preventing any damage to the near-by vegetation.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
20.	Land and landscape protection	Access to the construction site facility and the work areas must take place along public roads, or if not possible, on reinforced concrete slabs provided for the Task purpose in the terrace area. After completing the works, it is necessary to remove reinforced concrete slabs and reinstate the area. Service roads shall be located outside of nature valuable areas as indicated by the Contractor’s environmental team, paying special attention to the nature valuable areas located within the terrace area of the water courses and the SCI Tarnobrzeg Vistula River Valley PLH180049.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
21.	Land and landscape protection	Earthworks which permanently deform the site are not allowed, except for the works executed as part of the Task.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
22.	Noise protection / sections of the embankment where existing roads used by the Contractor are located	Paved surfaces (e.g. access roads) used for vehicle transport of aggregate should be maintained in good technical condition.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
23.	Protection of tangible assets	The Contractor is obliged to provide photographic documentation the entire area of construction works with particular focus on the technical condition of roads and the buildings located in the areas close to roads used for transport of construction materials. Before commencement of the works the Contractor shall carry out, in the presence of road Operator, site visit on the basis of which roads condition protocol shall be drawn up. Based on this document, if necessary the Contractor shall be obliged to reinstate roads technical condition.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
24.	Human health and safety protection	Proper marking of access roads. According to valid and relevant laws and agreements with Operators of the roads the Contractor shall mark the roads used for access routes. These marking shall be regularly controlled, in the case of destruction or theft of marking the Contractor shall promptly replace it or complete it.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
25.	Protection of tangible assets	The Contractor shall be responsible for any damage to the structures, buildings, roads, drainage ditches, culverts, water supply and gas pipe lines, power poles and power lines, cables, land survey control network and any type of services as well as other types of facilities such as vertical and horizontal signs, navigation aids, 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.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
26.	Protection of tangible assets	The Contractor is obliged to agree with road management authority of the traffic arrangement and works security plan. The Contractor is obliged to organize traffic in	All work areas	Visual monitoring, photo documentation, permits obtained, Contractor's letters	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
		accordance with the agreed plans (marking and securing the Site and marking of de-tours and recommended road signage related to change of traffic organization, etc.).			On permanent basis during the whole period of works implementation, reporting once a month	Engineer
27.	Protection of tangible assets	During works performance the Contractor makes efforts to minimise the burdens for the vehicle traffic existing in the works area (among others by ensuring access to the properties, passages to the public utility places).	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
28.	Protection of tangible assets	Prior to commencement of works the Contractor will present to the Engineer for approval, traffic arrangement and works security plans as well as the Programme agreed with the road management authorities. Depending on the needs and works progress, the traffic arrangement plans shall be updated by the Contractor on on-going basis	All work areas	Visual monitoring, photo documentation, permits obtained, Contractor's letters	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
29.	Protection of tangible assets	The Contractor shall respect the statutory limitations of 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.	All work areas	Visual monitoring, photo documentation, permits obtained, Contractor's letters	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
04 - ORGANIZATION OF THE SITE FACILITIES, WAREHOUSES AND STORAGE YARDS						
30.	Land and landscape protection	Roads, construction sites and site facilities must be situated in the manner ensuring the protection of trees and shrubs growing beyond the places necessary for occupation for construction works.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
31.	Land and landscape protection	Order should be maintained on the Site as well as proper works’ management.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
32.	General conditions concerning nature protection	The temporarily occupied sites (such as: service roads, works construction site facilities, construction material storage places, parking places etc.) must located outside of the valuable in term of nature areas as indicated by the Contractor’s environmental team, including outside of the wet lands and outside of the SCI Tarnobrzeg Vistula River Valley PLH180049 service roads. These places should be supplied with sorbents allowing for quick removal of the effects of possible fuel or oil derivatives leakage.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s environmental team

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
33.	Human health and safety protection, Land and landscape protection	Temporarily occupied sites (service roads, sites, building site facilities, construction material deposits, parking, etc.) must be situated as far as possible, from areas under acoustic protection and at safe distance from watercourses.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
34.	Human health and safety protection, Land and landscape protection	Temporarily occupied sites (service roads, sites, building site facilities, construction material deposits, parking, etc.) should be located and provided in accordance with Contractor’s environmental team instructions and approved by the Engineer.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
35.	Soil, grounds and surface waters protection	Rain water from the yard and access roads and places where the power-generating unit is located will be included in a storm water drainage system, equipped with coalescent separator integrated with settling tank, which should discharge the rainwater to the watercourse from Zajejorze.	Structure: Expansion of the water pumping station in Zajejorze	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
36.	Soil and surface water protection	Sites dedicated for cars and construction machines maintenance such as site facilities must have paved surface and be equipped with sorbents for the duration of works.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
37.	Soil and surface water protection	In the vicinity of sites dedicated for fuelling up and parking vehicles and machines, it is necessary to place a stand with a sorbent for removing possible leakages and spillages of petroleum substances.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
38.	General conditions concerning nature protection	Places of storage of construction materials, soil, construction equipment and vehicles parking etc. shall be located, if possible, beyond projection of tree crowns which were not cut down in connection with construction works.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
39.	Human health and safety protection	Materials used during construction works should be stored in the manner securing them against damage and in the manner not posing a risk to the human and property safety, such as falling over, sliding down or falling down of products, devices, machines and other equipment.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
40.	Human health and safety 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.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
41.	General manner of waste management	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.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
42.	Hazardous waste	Hazardous waste to be collected only by authorized entities. Until the waste is collected by authorized entities it must be	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
		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.			On permanent basis during the whole period of works implementation, reporting once a month	Engineer
43.	Hazardous waste	Hazardous waste storage sites must be allocated beyond flood waters area. (Q1% - so called hundred years water).	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
44.	Handling of household sewage	It is necessary to equip all construction sites with a required number of portable toilets and provide training to all the employees with regard to maintaining appropriate hygienic conditions within the area of the construction site and its direct surrounding. The Contractor's staff should only use toilets in designated places.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
45.	Handling of household sewage	Household sewage from the construction site facility must be collected in sealed tanks and disposed by specialized companies holding relevant permit to the nearest sewage treatment plant (catchment areas).	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
05 - REQUIREMENTS FOR CUTTING OUT TREES AND SHRUBS						
46.	General conditions concerning nature protection	On the planned tree felling sites related to the rebuilding and construction of embankments, it is necessary to assess if there are not any protected beetle species. If trees inhabited by protected beetle species are found, it is necessary to secure the species and/or such beetles must be relocated to a different habitat of similar conditions. The works must be carried out under the supervision of an entomologist.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - entomologist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
47.	General conditions concerning nature protection	In order to reduce losses in the species of protected bats which may live in tree hollows, the felling of trees of circumference exceeding 100 cm ought to be preceded with a chiropterologist inspection for the purpose of assessing the actual presence of bats in the vicinity of respective types of trees. Tree felling must be carried out under the supervision of a chiropterologist.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - chiropterologist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
48.	General conditions concerning nature protection	Felling of trees and shrubs felling shall be limited to the scope necessary for the implementation of the Task and performed outside of the vegetation season and birds breeding season (within the period from 16th October to the end of February).	Structure: Expansion of the surrounding embankment protecting Glass Factory and a Housing Property against the flood waters in the town of Sandomierz together with an extension of the embankment of the Vistula River from the Lwowska Street to intersection of Koćmierzów embankment Protection of the embankments of Koprzywianka River – left embankment at km 0+000 ÷ 12+900, right embankment at km 0+000 ÷ 14+400 Construction of the water pumping station in Szewce Expansion of the water pumping station in Zajeziorko	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - ornithologist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
49.	General conditions concerning nature protection	Trees and shrubs felling, within the scope necessary for the Task implementation, must be carried out beyond the bird breeding season (from 16 October to the end of February). Felling the trees and shrubs can take place on different dates only if bird breeding habitats and protected animal species are not affected, which must be acknowledged in the field inspection carried out by the Contractor's environmental team.	Structures: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station. Flood protection within the area of the Struga A watercourse together with an alteration and expansion of the pumping station "Nadbrzezie"	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – ornithologist, chiropterologist, entomologist
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
06 - REQUIREMENTS AT THE STAGE OF WORKS IMPLEMENTATION						
50.	Land and landscape protection	Vehicle traffic should take place along service roads, preventing any damage to the near-by vegetation. It is necessary to minimize the use of heavy duty machines and equipment.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor- Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
51.	Land and landscape protection	It is necessary to limit works in the inter-embankment zone only to required construction works (extension of the embankment, unpaved lane along the embankment, building other embankment structures).	Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
52.	Land and landscape protection	Machines and vehicles should use service roads and vehicle circulation areas only. Machines, if possible, should move along the same routes.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
53.	Soils, surface water and air protection	Construction equipment must be in working order which satisfies all legal conditions authorizing it for putting such equipment into service.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
54.	Soils, surface water, groundwater and air protection	The type and working order of such equipment must ensure the protection of soil, surface water and groundwater against	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
		pollution, dust and gas emission to the air and noise emission. The Contractor should maintain the equipment, vehicles and plant and use all available resources to eliminate possible pollution of soil and water environment, in particular occurrence of spills of fuel, hydraulic oil and oil-derived substance during handling, fuelling, transport and operation of machines, equipment and vehicles.			On permanent basis during the whole period of works implementation, reporting once a month	Engineer
55.	Soil and surface water protection	It is prohibited to repair equipment and machines or exchange oil within the Vistula River inter-embankment zone and the Koprzywianka River, or in the vicinity of areas of natural values, indicated by the Contractor's environmental team.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
56.	Soil and surface water protection	It is prohibited to fuel up and store fuel within the Vistula River inter-embankment zone and the Koprzywianka River, or in the vicinity of areas of natural value, indicated by the Contractor's environmental team. All repairs must be conducted beyond the direct building site in a dedicated place.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
57.	Soil and surface water protection, general handling of waste	It is not allowed to store on the building site of any waste connected with repairs and maintenance of equipment, machines and	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
		devices used for construction works. Any repairs of machines and servicing must be carried out by specialized companies or persons authorized to perform these works by the manufacturer (authorized service). Waste generated during these works (i.e. damaged parts, seals, filters, containers after lubricants and fluids, used oils, fluids, etc.) must be collected by contractors of repairs and services and they cannot be stored on the building site. They must be managed in compliance with applicable law.			On permanent basis during the whole period of works implementation, reporting once a month	Engineer
58.	Air protection	It is necessary to apply required organizational and technical measures in order to maintain clean access routes.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
59.	Air protection	It is necessary to apply required organizational and technical measures in order to limit dust emission at the time of transporting and storing of construction materials. Special attention shall be paid to effective limiting the dusting in case of performing works close to fruit orchards. (Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400)	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
60.	Air protection	It is necessary to apply required organizational and technical measures in order to limit dust emission during construction works. Special attention shall be paid to effective limiting the dusting in case of performing works close to fruit orchards. (Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400)	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor– Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
61.	Air protection	Sand and aggregates to be used during construction works shall be secured against their blowing or excessive dusting from their surface both during transport and storage, as well as during construction works. Special attention shall be paid to effective limiting the dusting in case of performing works close to fruit orchards. (Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400)	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
62.	Air protection (Protection against dusting)	Limit dust generated by the means of transport by: <ul style="list-style-type: none"> • cleaning vehicle wheels before entering the public roads, • cleaning service roads surface, • using vehicles with tilts for transport of dusty materials or transport of packed powdery materials, • other activities preventing mud and dirt dispersion on local roads by vehicles, • sprinkling of surfaces of internal service roads. Special attention shall be paid to effective limiting the dusting in case of performing works close to fruit orchards. (Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400)	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
63.	Air protection	It is necessary to reduce the work time of powered machines and vehicles.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
64.	Human health and safety protection	It is necessary to reduce speed limit of vehicles in the vicinity of the building areas.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
65.	Human health and safety protection	Work of machines, devices and other 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.	Structures: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400, Expansion of the surrounding embankment protecting Glassworks and a Housing Estate against the flood waters in the town of Sandomierz together with an extension of the embankment of the Vistula River from the Lwowska Street to intersection of Koćmierzów embankment	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
66.	Air protection	It is necessary to adhere to the rule of switching off machines and appliances during breaks at work.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
67.	Soil and grounds protection	The Contractor should choose a place for storing humus which will secure it against pollution, being driven through and being tamped down.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
68.	Soil and grounds protection	Humus should be stored and protected in a way enabling its re-use.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
69.	Soil and ground 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.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
70.	Soil and ground protection	Only vehicles, plant and equipment related to execution of works on the Task can be placed on Site and within site facilities.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
71.	Land and landscape protection	Earthworks must be limited to a necessary minimum.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
72.	Land and landscape protection	Grease and fuel to be stored at adequately prepared place with relevant sealing degree and equipped with sorbent to neutralize petroleum substance	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
73.	Land and surface water protection	The Task shall be implemented in a manner excluding penetration of any pollution, especially petroleum-based to the land and water. 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.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
74.	Land and surface water protection	For works performance, it is necessary to use only non-hazardous materials which are not burdensome to the environment.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
75.	Land and surface water protection	It is forbidden to deposit soil in: cavities, old river beds, swampy areas and other areas of a natural value within the entire Task implementation area.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
76.	Land and landscape protection	The manner of soil management must not change the water levels with detriment to the neighboring soil.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
77.	Land and landscape protection	It is required to use uncontaminated soil from concession purchases for elevating the embankments, which satisfy the	Structures: Protection the embankments of Koprzywianka River – left	Visual monitoring, photo documentation, verification of the	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
		requirements of the regulation on soil quality standards and earth quality standards.	embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400, Expansion of the surrounding embankment protecting Glassworks and a Housing Estate against the flood waters in the town of Sandomierz together with an extension of the embankment of the Vistula River from the Lwowska Street to intersection of Koćmierzów embankment	Contractor's documents	On permanent basis during the whole period of works implementation, reporting once a month	Engineer
78.	Land and landscape protection	It is forbidden to gather soil intended for embankment formation, sowing and reclamation of land for the building site on swampy areas and within Natura 2000 site.	Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
79.	Soil and water protection	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.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
80.	Groundwater protection	It is forbidden to deposit soil in areas of a natural value, indicated by the Contractor's environmental team.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
81.	Land and landscape protection	Soil formed during works must be managed for the needs of raising site levels and reconstructing the section of the embankment demolished.	Structure: Construction of the water pumping station in Szewce	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
82.	Noise protection	Construction works in the area and immediate vicinity of areas under acoustic protection must be carried out only during the day (from 6 a.m. to 10 p.m.). It is allowed to conduct works at night only in the event of a flood risk.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
83.	Noise protection	It is necessary to use the technologies of construction works which are least burdensome in terms of acoustics, maintain	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
		good work management, correct equipment operation and ensuring correct technical order.			On permanent basis during the whole period of works implementation, reporting once a month	Engineer
84.	Noise protection	It is necessary to locate parking sites for machines as far as possible from the areas under noise protection and at the same time as close as possible to the area of works.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
85.	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 soundproofed pumping engines.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
86.	General conditions concerning nature protection	Works to be carried out in a way which will avoid animal mortality. All the excavations must be protected against animal access and	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - herpetologist

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
		regularly controlled in the period of conducting works. In addition, according to the recommendations of herpetologist, if necessary, it is recommended to protect the migration routes of amphibians to water (e.g. through making appropriate fencing), in order to limit a death rate among amphibians related to vehicle traffic. It is also necessary to protect all hollows formed in the location of works and within the building sites which are filled with water against amphibian access and breeding in this area – works must be carried out according to the recommendations of a herpetologist. If animals get to the construction site, it is necessary to ensure their safe relocation to substitute habitats.			On permanent basis during the whole period of works implementation, reporting once a month	Engineer
87.	General conditions concerning nature protection	During construction works it is not allowed to destroy plants outside the Contract area.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – expert phytosociologist / botanist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
88.	General conditions concerning nature protection	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.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
89.	General conditions concerning nature protection	No substance which could be lethal to animals can be used for execution of works.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
90.	General conditions concerning nature protection	It is necessary to secure an excavation for a reservoir against access and entrapment of small animals.	Structure: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station.	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - herpetologist
					On permanent basis during the whole period of implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
91.	General conditions concerning nature protection	Due to animal species protection, it is recommended to carry out construction works on these sides of Struga A watercourse which enables leaving maximal area of intact tree stands as well as execute construction works in the periods of low water level. Felling of trees must be limited to the necessary minimum.	Structure: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station.	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - ornithologist
					On permanent basis during the whole period of works implementation, reporting once a month	
92.	General conditions concerning nature protection	Works within the Koprzywianka River bed must be performed best in the period from July to August. It is forbidden to conduct works in the fish spawning period (i.a. rainbow trout and grayling) which starts in September and ends in April.	Structures: Construction of the water pumping station in Szewce, Expansion of the water pumping station in Zajeziarze.	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - water protection expert
					On permanent basis during the whole period of works implementation, reporting once a month	
93.	General conditions concerning nature protection	Protective fences shall be provided to secure the construction site from the intrusion of animals.	Structures: Expansion of the water pumping station in Zajeziarze, Construction of the water pumping station in Szewce	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - herpetologist

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
94.	General conditions concerning nature protection	The works within the port channel's bed shall be conducted outside of the fish sprawling season (outside of the following month May-June), which shall minimize the negative impact on fish species.	Structure: Expansion of the surrounding embankment protecting Glassworks and a Housing Estate against the flood waters in the town of Sandomierz together with an extension of the embankment of the Vistula River from the Lwowska Street to intersection of Koćmierzów embankment	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - water protection expert
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
95.	General conditions concerning nature protection	Before performing a port gate, a cofferdam separating the canal from the Vistula River shall be placed.	Structure: Expansion of the surrounding embankment protecting Glassworks and a Housing Estate against the flood waters in the town of Sandomierz together with an extension of the embankment of the Vistula River from the Lwowska Street to intersection of Koćmierzów embankment.	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
96.	General conditions concerning nature protection	The Contractor will obtain required permits for deviations from prohibitions in relation to protected species of animals, plants and fungi, issued by RDOŚ/GDOŚ (pursuant to Article 56.1 and 2 of the Environmental Protection Act of 16 April) - if this will be necessary according to the findings of the Contractor's environmental team.	All work areas	Contractor's periodical reports	At the stage of preliminary works	Contractor – Site Manager
					Once at the stage of preliminary works	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
97.	General conditions concerning nature protection	Before commencement of earthworks related to the Task implementation, it is required to remove a layer of humus from temporarily and permanently occupied sites. The period provided for works is planned from 15 August to 15 October. When it is necessary to implement these works in other time, the planned date should be agreed on with an expert herpetologist.	Structures: Flood protection within the area of the Struga A watercourse together with an alteration and expansion of the pumping station "Nadbrzezie", Expansion of the surrounding embankment protecting Glassworks and a Housing Estate against the flood waters in the town of Sandomierz together with an extension of the embankment of the Vistula River from the Lwowska Street to intersection of Koćmierzów embankment, Construction of the water pumping station in Szewce, Expansion of the water pumping station in Zajeziorsze.	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor - herpetologist
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
98.	General conditions concerning nature protection	Before commencing earthworks connected with the Task implementation, it is necessary to remove a layer of humus from permanent and temporary occupation areas. Works must be carried out from 15 August to 31 October. A humus layer taken from the reservoir must be stored separately from other soil layers and planted at the stage of site reinstatement. If it is necessary to perform works within inter-embankment zone of the Koprzywianka River, in other period, it is necessary to consult herpetologist.	Structure: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station, Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - herpetologist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
99.	General conditions concerning nature protection	It is necessary to build a canal in the inter-embankment zone, a bypass channel and slope of the Atramentówka watercourse and expansion tank in the manner enabling animal migration (e.g. it is necessary to consider appropriate slope falls and materials covering slopes).	Structure: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station,	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - herpetologist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
100.	General conditions concerning nature protection	In the closest vicinity to Natura 2000 Tarnobrzeg Vistula River Valley PLH PLH180049, it is necessary to reduce a scope of work which can theoretically affect the site.	Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400.	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
101.	General conditions concerning nature protection	It is forbidden to remove humus during heavy rainfalls and directly after the rain.	Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400.	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
102.	General conditions concerning nature protection	Earthworks in the Koprzywianka River inter-embankment zone should be limited to a necessary minimum, all trees and shrubs which do not collide directly with the area of works should be left intact.	Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
103.	General conditions concerning nature protection	Works within the areas of a natural values, due to occurrence of species of amphibians (indicated by the Contractor's environmental team), should be conducted outside the period of March and April. This period may be prolonged if a herpetologist determined ongoing amphibians breeding.	Structures: Flood protection within the area of the Struga A watercourse together with an alteration and expansion of the pumping station "Nadbrzezie"	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - herpetologist

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
104.	General conditions concerning nature protection	Works on swampy areas will be carried out beyond the amphibian breeding season, i.e. beyond the period from March to April. This period may be prolonged if a herpetologist determined ongoing amphibians breeding.	Structure: Protection the embankments of Koprzywianka River – left embankment in km 0+ 000 ÷ 12+900, right embankment in km 0+000 ÷ 14+400.	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor - herpetologist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
105.	General conditions concerning nature protection	A relief channel, a canal in the inter-embankment zone and the banks of the levelling tank and the Atramentówka river should be all done in a way enabling migration of animals (appropriate slope of banks, appropriate selection of covering materials).	Structures: Flood protection within the mouth section of the Atramentówka River, construction of a new pumping station "Koćmierzów" and of a gravity-type dam lock in Koćmierzów (in the right embankment of the Vistula River) and of a channel draining water from the Atramentówka River to the pumping station	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – herpetologist
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
106.	General conditions concerning nature protection	Where areas of the implementation of respective structures are adjacent, it is necessary to ensure correct work organization in order to limit the accumulation of negative environmental factors.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
107.	Limitation of impacts on the protected areas and facilities	During the construction works, the Contractor shall comply with standards, prohibitions and recommendations as well as respect limitations arising from the existence of areas and facilities formed under the Act of 16 April 2004 on environmental protection.	All work areas	Naturalists reports, notes from the field vision	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
108.	General findings concerning cultural heritage and monuments protection	If during construction works or earthworks the Contractor discovers an object likely to be a historical object, he/she is obliged to suspend all the works which could damage or destroy discovered object; furthermore, such a person is obliged to secure the object with available protective measures as well as a discovery site; in addition, this person is obliged to notify the Provincial Conservator of Historical Monuments, and if not possible, the Mayor of Sandomierz. The Contractor shall also inform the Engineer about the case.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor's archaeological supervision

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation	Engineer
109	General findings concerning cultural heritage and monuments protection	For the purpose of implementing the above EMP conditions related to the protection of cultural landscape and monuments, the Contractor will also obtain the permit issued by the Provincial Conservator of Historical Monuments (PCHM) for the performance of archaeological rescue survey.	All work areas	Contractor's periodical reports	On permanent basis during the whole period of works implementation	Contractor – Contractor's archaeological supervision
					On permanent basis during the whole period of works implementation	Engineer
110	Human health and safety protection	The Contractor is responsible for health and safety of people, including fire protection - development of SHPP, obtaining acceptance of the Engineer for implementation of SHPP, which will remain in force until construction works completion. Requirements with regard to fire protection included in SHPP should include also prohibition on bonfires and combustion of flammable materials within the construction site area.	All work areas	Visual monitoring, photo documentation, reports	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation	Engineer
111	Human health and safety protection	The Contractor shall ensure the preparation, implementation after the approval by the Engineer of Building site organization design.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
112.	Human health and safety protection	The Contractor shall ensure the preparation, implementation after the approval by the Engineer of Quality assurance plan.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
113.	Human health and safety protection	The Contractor shall ensure the preparation, implementation after the approval by the Engineer of The construction site's flood management plan for the time of the works.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
114.	Human health and safety protection	Allocating dangerous zones which pose a risk to human health and life, and marking, with their use, warning boards, securing against unauthorized access.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
115	Human health and safety protection	Ensuring health and safety in terms of organization - the Contractor shall ensure and maintain the safety of the works conducted.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
116	Human health and safety protection	Ensuring health and safety in terms of organization - the Contractor shall assign the construction area, as far as possible from the residential development areas in order to eliminate excessive noise and vibration emission at the time of the Task implementation.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
117	Human health and safety protection	The Contractor shall secure and provide marking in the building site.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
118	Human health and safety protection	The Contractor shall mark traffic routes of the building site.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
119	Human health and safety protection	The Contractor shall prepare a traffic plan (evacuation plan) for the construction site and site in emergency (fire, accident, technical failure, etc.), which will be approved by the Engineer prior to the commencement of works.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
120	Human health and safety protection	Protection health and safety in relation to applied technical measures by the use of efficient machines and tools subject to periodic service in accordance with the manufacturer's requirements.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
121	Human health and safety protection	The Contractor is responsible for protection of health and safety in relation to applied technical measures by the use of machines and tools according to their intended use.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
122	Human health and safety protection	Machine maintenance and fuelling up must be carried out in separate place. These types of work must be carried out carefully in dedicated paved surfaces with adequate sorbents.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
123.	Human health and safety protection	It is required to ensure ongoing monitoring of a technical condition of machines, correct performance of works and strict adherence to the OH&S regulations in order to eliminate an increased noise level within the works zone and in its immediate vicinity.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
124.	Human health and safety protection	The Contractor shall ensure constant visibility conditions during the day and at night of such structures and signs which are obligatory for safety reasons.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
125.	Human health and safety protection	The Contractor is responsible for the training (including test on completion) of his management and engineering staff supervising the works, regarding terms and conditions of EMP as well as protection during construction works, prepared with an aid of the Contractor’s environmental team. The Contractor’s personnel who will have to deal with fuel and diesel oil should be immediately trained on the principles of protection of soil and water, as well as the application of sorbents	All work areas	Verification of Contractor’s documents, participation in training	Once during preliminary stage and on permanent basis during the whole period of works implementation	Contractor
					Once during preliminary stage and on permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
126.	Human health and safety protection	(Clause 6.7 of the General Contract Conditions) HIV-AIDS prevention. The Contractor shall implement training and programme of raising awareness of spreading HIV-AIDS through an approved service provider and shall take all other measures outlined in the Agreement (General Conditions, Clause 6.7) in order to reduce a risk of HIV transfer among the Contractor's personnel and local population and it shall promote early diagnostics and support for infected people. Such actions shall be conducted during the whole term of the Contract (including Defects Notification Period) at least every second month. These shall be information, educational and awareness campaigns concerning the threats in the scope of spreading HIV-AIDS.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer
127.	Developing Waste Management Plan	Within 42 days of the date of commencing works, the Contractor shall prepare and submit for the Engineer's approval Waste Management Programme, specifying management method for waste generated during works, considering, among others, guidelines within waste management contained in EMP.	All work areas	Visual monitoring, photo documentation	On permanent basis during the whole period of works implementation	Contractor – Site Manager
					On permanent basis during the whole period of implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
128	Contractor's environmental team	The Contractor's environmental team must be present throughout the whole construction works period.	All work areas	Contractor's confirmation of the performance of activities in the annual Report on the Contract execution, attached with site inspection records, reports prepared by experts in natural environment, etc.	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
129	Tasks of the environmental team within the Task implementation period	The Contractor's environmental team provides the observations of the area of construction works prior to works their implementation and during such works.	All work areas	Engineer's confirmation in the annual Engineer's Report, attached with protocols (Minutes of meetings and notes from the field vision). The Engineer will be responsible for assessing the monitoring, which will be confirmed in the periodic reports of the Engineer.	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
130	Tasks of the Contractor's environmental team within the Task implementation period	The Contractor's environmental team responsibilities include: <ul style="list-style-type: none"> inspection of area covered by construction works prior to their commencement and inspections during construction along with preparing relevant reports, constituting documentation of proper performance of environmental team and at the same time informing about due implementation of mitigation measures, formulating and reporting to the Engineer requests with regard to the need actions (along with their execution) necessary to alleviate unfavorable effects of Task on natural habitats and species being the object of interest of the Community and subject to national legal protection (species protection) that were unforeseeable and/or impossible to disclose at the stage of agreeing on implementation terms of the concerned Task under the procedure aimed at issuance of the decision on environmental conditions, the activities may be implemented only after the Engineer's acceptance. 	All work areas	Contractor's confirmation of the performance of activities in the annual Report on the Contract execution, attached with site inspection records, reports prepared by experts in natural environment, etc.	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
131	Tasks of the Contractor's environmental team within the Task implementation period	The Contractor's environmental team prepares required materials and motions for obtaining permission for deviation from the prohibitions connected with protected species of plants, fungi and animals under conditions and procedure specified in the Environmental Protection Act of 16 April 2004.	All work areas	Contractor's confirmation of the performance of activities in the annual Report on the Contract execution, attached with site inspection records, reports prepared by experts in natural environment, etc.	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
132.	Tasks of the Contractor's environmental team within the Task implementation period	The Contractor's environmental team submits to the Engineer periodical reports (monthly, quarterly, final), which must be approved by the Engineer.	All work areas	Contractor's confirmation of the performance of activities in the annual Report on the Contract execution, attached with site inspection records, reports prepared by experts in natural environment, etc.	On permanent basis during the whole period of works implementation	Contractor – Contractor's environmental team
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
133.	Sapper supervision	In the event of discovering unexploded shells the Contractor shall immediately stop the works and evacuate workers as well as notify the police and a licensed sapper unit.	All work areas	Visual monitoring, photo documentation, tests with a specialist equipment, sapper supervision report	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor's sapper supervision
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month (Monitoring for implementation of EMP records in the range of sapper supervision)	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
134.	Sapper supervision	The Contractor shall ensure sapper supervision throughout the performance of earthworks, which will consist in on-going inspection and clearance of the terrain from hazardous objects of a military origin and their disposal.	All work areas	Visual monitoring, photo documentation, tests with a specialist equipment, sapper supervision report	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s sapper supervision
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month (Monitoring for implementation of EMP records in the range of sapper supervision)	Engineer
135.	Protection of archaeological values	During the works, continuous archaeological supervision will be ensured.	All work areas	Contractor's confirmation of the performance of activities in the annual Report on the Contract execution, attached with site inspection records, reports prepared by experts in natural environment, etc.	On permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor’s archaeological supervision
					On permanent basis during the whole period of works implementation, reporting once a month	Engineer
136.	Human health and safety protection	Contractor’s OH&S supervision shall be responsible for adequate marking of building site according to applicable laws. This marking shall be regularly controlled, in the case of destruction or theft of marking the Contractor shall promptly replace it or supplement it.	All work areas	Visual monitoring, photo documentation	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
137.	Environment, human health and safety protection	The Contractor and Contractor's environment team is responsible for training of the rules and conditions of the EMP for Contractor's management and engineering-technical personnel.	All work areas	Verification of the Contractor's documents	Once at the stage of preliminary works and on permanent basis during the whole period of works implementation	Contractor – Site Manager, Contractor's environmental team
					Once at the stage of preliminary works and on permanent basis during the whole period of works implementation, reporting once a month	Engineer
138.	Periodic meetings on implementation of mitigation and monitoring measures	During the implementation of the tasks arising from the EMP will take place monthly team meetings PIO, Engineer and Contractor to discuss and monitor the implementation of mitigation and monitoring measures.	All work areas	Minutes of meetings	On permanent basis during the whole period of works implementation and Period for Reporting Defects	PIO, Engineer and Contractor
					On permanent basis during the whole period of works implementation and Period for Reporting Defects, reporting once a month	Engineer

No	Issue	Monitoring subject	Place of monitoring	Manner of monitoring	Period and frequency of monitoring	Responsible entity
07 - REQUIREMENTS AFTER COMPLETION OF WORKS						
139	Land and landscape protection	Places sowed with grass mix should be taken care of by means of mowing of flood embankments twice a year (in June and September) and removal of hard lichens. This activity includes also the Defects Notification Period.	All work areas	Visual monitoring, photo documentation	On permanent basis during the Period for Reporting Defects	Contractor– Site Manager
					On permanent basis during the Period for Reporting Defects	Engineer
140	Land and landscape protection	Upon completing construction works, it is necessary to restore temporary occupation sites to their previous condition (original use). Humus shall be planted from the places where it had been removed and then sown with a mix of local grass species; the composition of the mix shall be agreed with the expert phytosociologist/botanist. After the completion of works the site shall be cleared and left in the condition as similar as possible to the original one.	All work areas	Visual monitoring, photo documentation	Each time during verification and acceptance of works to be covered up or temporary works	Contractor phytosociologist/botanist –
					Each time during verification and acceptance of works to be covered up or temporary works	Engineer