



**Regional Director for
Environmental Protection
in Wrocław**

Wrocław, 29 December 2017

WOOS.4233.2.2017.ŁCK.27

DECISION

Pursuant to Article 71 Clause 2 point 2, Article 75 Clause 1a, in conjunction with Article 75 Clause 1 point 1, letter "i" of the *act of 3 October 2008 on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments* (Journal of Laws of 2017 item 1405, as amended) and Article 104 Par. 1 of the *Administrative Procedure Code* (Journal of Laws of 2017, item 1257), as well as Paragraph 3 Clause 1 Point 65, 60 of the regulation of the Council of Ministers of 9 November 2010 *on the types of projects which can significantly affect the environment* (Journal of Laws of 2016, item 71), after having considered the application of 9 February 2017 of Marshal of the Lower Silesia Province, acting on behalf of and for the State Treasury, represented by Ms Joanna Gustowska, the Director of the Lower Silesia Board of Amelioration and Water Structures in Wrocław, on behalf of whom the representative is acting - Mr Dariusz Figura,

I establish

environmental conditions for the project entitled: "WFS Widawa – the rebuilding of the flood management system of the communes and municipalities Czernica, Długoleka, Wisznia Mała and Wrocław" according to the investment scenario.

I. I set forth

1. The type and location of project implementation:

The planned project will consist of, in particular, construction and extension of flood protection embankments in the valley of the Widawa River. Regarding the administrative division, the planned project is situated on the area of the Municipalities of Wrocław, Długoleka and Czernica, Wrocław Powiat, Lower Silesia Province.

2. The conditions for land use at the stage of implementation and operation of the project, taking into special account the need to protect valuable environmental assets, natural resources and historical sites and to reduce nuisance to their neighbouring areas:

- 2.1 The works shall be carried out under nature supervision with the supervision of the following experts: phytosociologist, ichthyologist, herpetologist, entomologist, chiropterologist, ornithologist and theriologist. The correct enforcement of measures mitigating the project's negative environmental impact shall be pursued under constant nature supervision. Each day of project implementation, at least one of the experts shall perform inspection of the entire project site and of compliance of works being performed with the conditions of this decision.
- 2.2 Prior to undertaking substantial levelling works, the top humus soil layer shall be removed (to the depth of 30 cm on average) and stored in the vicinity of the area covered by the construction, in separate piles secured against drying and mixing with native rock.
 - 2.3 Upon completion of earth works - use the taken-off over-load for forming slopes of the embankments intended for turf assessment. At the width of 5-10 metres along the embankment, at one side or both sides of the embankment - spread and level the previously taken-off humus. Within the technological lines and places of storage (transport) of building materials - additionally execute all the tillage works: plating with discs, harrowing, fertilising and seeding grass mixtures in accordance with meadow habitats located closest to the site of re-cultivation.
- 2.4 Do not occupy lands adjacent to the area of implementation of the project beyond the existing communication system.
- 2.5 Do not locate an operating backyard of construction sites at areas covered with bushes and trees as well as within protected natural habitats.
- 2.6 Within the inter-embankment zone - not to dig up local depressions with a surplus of ground from excavations / trenches.
- 2.7 Reduce (as far as possible) the area of damage as a result of building works conducted within valuable natural habitats of species.
- 2.8 Modify the technology applied for construction / modernisation of the embankments consisting in conducting works at the opposite side to natural objects, or alternatively - conducting works at the front or crest of the embankment.
- 2.9 Determine the location of technological routes and sites in a manner which ensures: preservation of protected natural habitats, positions and habitats of protected species, preservation of all the tree- and shrub-based vegetation occurring beyond the areas required to be occupied in reference to the modernisation of the existing embankments and construction of new ones.
- 2.10 At the determination of location of technological routes and sites at the areas located within the zone of implementation of the project, the following should be done: keep all tree and shrub vegetation growing beyond the places

required to be occupied in reference to the modernisation of the existing embankments and construction of new ones, set a precise location of technological routes and sites within the boundaries of the zone of implementation of the project - in co-operation with specialists in the field of zoology and botany, so as not to worsen the ecological status of natural objects located within the implementation.

- 2.11 Reduce (as far as possible) the minimum depth of excavations / trenches and shorten (as far as possible) the duration of works.
- 2.12 Limit the felling of trees and shrubs to the ones colliding with investment implementation. Tree and shrubs felling in the period of 15 March to 15 August shall be performed under the supervision of an ornithologist expert, who, directly before performing it, will inspect trees for presence of bird nests, and if such are found - will indicate the permitted felling performance time. The above-mentioned supervision is not required in the remaining period (between 16 August and 14 March).
- 2.13 In case of an intention of felling of trees with their breast height over 50 cm, directly prior to the felling, the following should be performed with the participation of specialists: entomologist - a control of the occupancy of these trees by protected species of beetles, such as: Great Capricorn Beetle *Cerambyx cerdo*, Hermit Beetle *Osmoderma eremita*, chiropterologist - a control of the presence of bats.
- 2.14 In cases of statement of the presence of beetles (larval or adult forms), the permission for cutting the occupied tree can only be conditioned by technical or technological reasons.
- 2.15 In cases of statement of the presence of bats in trees to be felled, temporarily suspend felling and implement the chiropterologist's recommendations which are adequate to the current atmospheric situation and the identified species of bats.
- 2.16 Within the whole area of the investment, secure all the trees and shrubs designated to be left, including the ones being habitats for Great Capricorn and Hermit Beetle, against accidental damage by using the following methods:
 - make tree-trunk protection (e.g. made of planks) fully around tree trunks up to the level of 1.5 m at minimum,
 - make shields around shrubs (e.g. made of planks) up to the level of 1.0 m at minimum,
 - make dig-outs / trenches at a distance of not less than 2 m from tree trunks,
 - do not store construction materials or solid / liquid waste which can alter the chemical characteristics of soil (e.g. salts, oils, fuels), or soil

masses within the projection of tree crests,

- execute earth works manually around skeletal roots. It is unacceptable to undercut skeletal roots,
- in the period of hot weather, maximally reduce the time of exposure of roots to desiccation, while in the period of cold weather (frost) - to freezing.
- make dig-outs / trenches, conducted within the root systems of trees and shrubs, manually, if necessary, use drilling or jacking methods.

2.17 When designating the trees planned for cutting, maintain the possibly largest area of the natural habitat of oak-elm-ash riparian forests *Ficario-Ulmetum* (code 91F0).

2.18 Prior to the commencement of works, identify and mark in field (in a manner visible for the works contractor) the boundaries of patches of natural habitats: oak-elm-ash riparian forests *Ficario-Ulmetum* (code 91F0) - in vicinity of the sections of embankments: F1-G, G-G1, G1-H, D-D1, E2-E1; alluvial meadows of river valleys (*Cnidion dubii*) (code 6440) - in vicinity of the sections of embankments: K-K1, K1-L.

2.19 The patches of natural habitats 91F0, 6440, situated in vicinity of the sections of embankments, shall be effectively secured against damage, contamination, traffic of machines and vehicles and free access of persons associated with conducted works. The protection condition of patches shall be constantly supervised and any damages shall be removed.

2.20 The works as mentioned in point 2.17 - 2.19 shall be carried out at presence of phytosociologist.

2.21 Prior to the start of the growing season, the following sections of embankments shall be inspected: K-K1, K1-L, L-M, for presence of invasive positions of species of plants, with special consideration to Sosnowsky's hogweed *Heracleum sosnovskyi* and *Echinocystis lobata*.

2.22 In the places where the positions mentioned in 2.21 are identified (within the limits of embankments: K-K1, K1-L, L-M), in the construction phase and over the next two growing seasons after their end, all individuals of plants belonging to external invasive species shall be removed, especially Sosnowsky's hogweed *Heracleum sosnovskyi* and *Echinocystis lobata*, until they disappear and are replaced by local plants.

2.23 The removal of species belonging to external invasive species - depending on the species - shall be made by digging them out or by extracting (together with the root mass) or/and by chemical spraying. The humus taken-off with invasive plants - not connected with other earth masses - shall be passed to entities having relevant waste management licences for transfer to a waste dump. All the above activities shall be carried out with participation and

according to detailed instructions specified by an expert phytosociologist.

2.24 All works carried out within beds of watercourses shall be undertaken beyond the period of 15 April to 30 June.

2.25 Works within beds and banks of watercourses shall be carried out from the headwater downstream.

2.26 Prior to liquidation of the outlet section of Młynówka Kielczowska with the length of 0.5 km, its new section shall be constructed as "dry", entering directly the Mrówka watercourse with the length of 0.2 km. Upon completion of construction of the new section, the new outlet section planned for liquidation shall be cut off from the headwater with a cofferdam, thus closing the supply of water, which will be directed to the new outlet section of the Młynówka. After closing the supply of water to the liquidated watercourse section by separating its channel with a cofferdam, wait until water flows down from it, undertaking at the same time works (excavations, trenches) facilitating its flow, enabling more aquatic organisms, especially fish, to escape from this trap together with water. When water flows down from this section, collect the fish left in the depressions with water and molluscs and other animals and release them to Młynówka Kielczowska several hundred metres above the conducted works. Works shall be carried out with the participation of the following specialists: ichthyologist and entomologist. Before releasing the collected organisms, their species should be identified. Inform the fishing organisation of the planned date of performing fish catching (at least two months in advance) and agree upon with the fishing organisation the manner of performing fish catching and the places of transferring the fish.

2.27 As part of works connected with desilting of watercourses, directly after removing the bottom material from the course bed and again within an hour after desilting, inspect the places where material is stored, collect and release to water any discovered animals found in the collected bottom sediments, especially fish, molluscs, larval stages of invertebrates, especially dragon flies. The frequency of inspections may be higher than specified above and shall be adjusted to the type and quantity of the extracted bottom sediments and weather conditions prevailing during performance of works. The collected individuals should be moved and released at places ensuring their safety (e.g. at sections of completed works in the bed or where desilting works were not carried out). The inspection shall be made by a person from nature supervision.

2.28 Desilting under maintenance of excavations shall be limited to the sections only where a layer of clay is limiting the correct flow of water. Remove the layer of silts with a thickness of not more than 30 cm. Maintain the existing bankline of excavations.

2.29 Operating backyards, storage yards, places where works are performed, etc.

situated in the vicinity of places of occurrence of amphibians shall be secured against access of amphibians, reptiles, small mammals, by fencing off with a tight fence with a height of not less than 0.5 m. The type, detailed location of fences and their installation shall be agreed with a specialist in the field of herpetology. The fences shall be regularly inspected throughout the entire period of construction and any damages shall be regularly removed. In the period of 1 March to 31 August, fences shall be inspected not less than once every 3 days, and between 1 September until the end of February, not less than every 10 days.

- 2.30 Apply the methods securing water chambers, trenches, collectors etc. prior to the confinement of minor mammals, amphibians and reptiles within them. Therefore, these components (elements) should be designed to allow individual animals to get out of these structures. At the same time, at the stage of implementation, water chambers, trenches, collectors and other structures likely to be a trap for small animals should be monitored daily with trapped animals got out and transported beyond the site of works. Animals shall be transported under the supervision of an expert herpetologist or another expert from nature supervision, having experience in procedures in such cases.
- 2.31 Any occurrence of stagnant water which could constitute places where amphibians settle shall be regularly eliminated. Stagnant water shall be eliminated in agreement with and under supervision of an expert herpetologist.
- 2.32 Directly prior to commencement of works relating to flow improvement under the bridge along Rzeczna Street, inspect the bridge structure for presence of bats with participation of an expert chiropterologist. Continue further works in consultation with a chiropterologist, and if presence of bats is found, according to the chiropterologist's guidelines.
- 2.33 After finishing earthworks, plant the litoral of the balance reservoir with water and above-water plants, in particular to create a band of rushes. The works shall be carried out in consultation with an expert phytosociologist.
- 2.34 After finishing works, the area shall be ordered and procedures supporting the restoration of green areas shall be performed in the places indicated by a phytosociologist, including sowing and planting using native species in accordance with habitat conditions.
- 2.35 Reports shall be prepared for the completed nature supervision, which should be submitted to a body supervising the Natura 2000 site at the date until the last day of each calendar quarter. The last report on implementation monitoring should be prepared within 3 months from the date of completion of the investment.
- 2.36 The new outlet section of Młynówka Kiełczowska shall be constructed as "dry".

- 2.37 Hazardous waste should be categorised and stored in designated containers placed at hardened and protected areas secured against access of third parties until their transfer to entities having the appropriate permission for their disposal.
- 2.38 Equipment and machines used for works must meet the appropriate quality and technical standards, excluding the emission of hazardous contaminants to water and earth, mainly from the oil-derivative group (oils, greases, fuels).
- 2.39 Do not use machines and equipment, especially in the area of residential development, having technical defects or damages likely to have adverse impact on the environment.
- 2.40 An operating backyard shall be located on hardened area secured with a non-permeable layer.
- 2.41 Construction works shall be so organised as to limit the pouring of fuels and other chemical agents on the construction site.
- 2.42 Effective access to the construction site and speed limits near the construction site shall be ensured in the phase of investment implementation.
- 2.43 Bulk materials shall be transported with vehicles accommodated to it, secured with canvas covers.

3. Requirements concerning the environmental protection required to consider in the documentation to issue a decision specified in article 72, clause 1 of the act on provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments:

- 3.1 Within the area of natural objects no. 7 specified in the environmental impact report - "Riparian forest between Wilczyce and Kielczów" and no. 20 - "Oak alley for extension of Wierzbowa Street in Kielczówek", design the course of the investment elements and works in such a way as to preserve all the trees being a habitat of Hermit Beetle *Osmoderma eremita* and Great Capricorn *Cerambyx cerdo*. If the species of above habitats cannot be preserved for technical reasons, cutting and principles of managing the cut trees shall be conducted according to an expert entomologist's guidelines.
- 3.2 Within the area of the natural object no. 28 specified in the environmental impact report - "Oaks between Wilczyce and Kielczów", design the course of the investment elements and works in such a way as to preserve sessile oaks settled by Capricorn beetle *Cerambyx cerdo*.
- 3.3 In the designs concerning the flow improvement of bridges, apply solutions which ensure the ecological functionality for animals moving through the valley of the Widawa river (appropriate lighting, dry land at river-bank areas above average water levels, natural character of river-bank areas under the bridges).
- 3.4 The new bed of Młynówka Kielczowska should have its character similar to the

liquidated bed of the watercourse (cross-section and longitudinal inclination of bottom). Use the rubble coming from the bottom of the eliminated section to construct the bottom of the new watercourse section. The banks shall be covered with turf and possibly reinforced with fascine hurdles or planted with poplar cuttings. Do not reinforce with rip-rap of broken stone, nor with stone cubes. Do not use gabion mattresses or baskets, measures shall be envisaged consisting of differentiation of the bottom structure (e.g. by creating hollows and shallow places, and also by laying boulders, branches). The scope and method of performing such measures should guarantee safe passage of flood water. Perform the measures with participation of an expert ichthyologist.

- 3.5 In the new section of Młynówka Kielczowska, design not less than 2 places of stagnant water in the form of oval bays with the water surface area of not less than 1 m². Places of stagnant water shall be made with participation of nature supervision.
- 3.6 Do not design drainage systems and new melioration ditches in the area of the "new" inter-embankment zone within the limits and distance of less than 100 metres from wastelands, permanent grasslands, groups of rushes, water reservoirs, oxbow lakes, bushes, tree stands and forests.
- 3.7 Anchor the anti-filtering membrane and the sealing screen in the underground part in such a way that they do not reach the layers of non-permeable grounds.
- 3.8 Do not increase the agreed damming level under the renovation works planned for the Kielczówek weir. The maximum damming level shall not exceed the ordinate of 119.40 m ASL.

4. Nature compensation

- 4.1 For the destruction of patches of the natural habitat - oak, elm, ash riverine forests (Ficario-Ulmetum) - code 91F0 with the total area of about 2.4 ha - plant trees and bushes on the area of not less than 7.2 ha. The compensation should be conducted through, e.g. executing (densifying) planting in the ecotone zone of compact complexes of forests, through forestation by renewal of tree stands or through planting for reconstruction of tree stands taking into account appropriate tree and bush species for the natural habitat 91F0. The basic principles of forest cultivation should be maintained. Detailed solutions should be implemented under the guidance of an expert phytosociologist.
- 4.2 For the removal of about 1850 trees, including 50 trees with monumental dimensions or close to monumental dimensions - plant 5550 trees of native species (Oak, Lime, Maple, Alder, Norway Maple, Field Maple, Field Elm, White Willow, Black Poplar, White Poplar). Execute plantings in the form of lines of trees, alleys or groups of trees, preferably within 3 km from the project implementation site.
- 4.3 For the removal of bushes on the area of about 0.95 ha - execute planting of

native species of bushes on the area of not smaller than 2.85 ha. Execute plantings in the form of lines or groups of bushes, e.g. in the ecotone zone of compact complexes of forests, preferably within 3 km from the project implementation site.

- 4.4 The plantings mentioned in point 4.1. - 4.3. shall be agreed with an expert phytosociologist and executed between September and October. Perform a survival rate assessment after 9 months from executing the plantings. If the survival rate smaller than 85 % is found, execute appropriate supplementary plantings.
- 4.5 For the destruction of one water pond and for partial destruction of two reservoirs being the breeding site of amphibians - restore in the inter-embankment area at least several water reservoirs, formed in a way creating habitats for species of amphibians with the total water surface area of not less than 0.6 ha. Consult the measures with an expert herpetologist.
- 4.6 For the destruction of the habitat of Grey Wagtail *Motacilla cinerea* - install two breeding boxes appropriate for the species in the area of Młynówka Kielczowska. Consult the measures with an expert ornithologist.
- 4.7 For the destruction of shelters of bats - install two boxes for bats within the area of the bridges the flow of which is improved under the project and 40 boxes for bats in the trees situated within the area of or in vicinity of the project.

5. Post-implementation monitoring and analysis

- 5.1 During the project implementation period and two years since restoring the operation of the Kielczówek weir according to the provisions of the water permit, perform monitoring of fish migration along the Widawa section downstream and upstream of the weir (before and after Młynówka Kielczowska relocation) and on the outlet section of the Mrówka watercourse (after relocation of Młynówka Kielczowska) and the outlet and initial section of Młynówka Kielczowska (before and after Młynówka Kielczowska relocation). Before starting monitoring, submit the methodology of monitoring performance to a body supervising the Natura 2000 site for approval. Within 3 months from finishing monitoring, submit a post-implementation analysis for the impact of the Kielczówek weir on ichthyofauna migration to a body supervising the Natura 2000.

II. I do not impose an obligation to conduct an environmental impact assessment and the proceedings in the scope of the cross-border impact on the environment under the proceedings on issuing the decision as specified in Article 72 Clause 1 of the *act on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments.*

III. An Appendix, with the characteristics of the project, forms integral part of

the decision.

JUSTIFICATION

The proceedings concerning the issue of the decision on environmental conditions for the project entitled: "WFS Widawa – the rebuilding of the flood management system of the communes and municipalities Czernica, Długoleka, Wisznia Mała and Wrocław", is conducted pursuant to an application of 9 February 2017 of the Marshal of Lower Silesia Province acting on behalf of and for the State Treasury, represented by Ms Joanna Gustowska, the Director of the Lower Silesia Board of Amelioration and Water Structures in Wrocław, on behalf of whom the representative is acting - Mr Dariusz Figura. The application was supplemented formally on 22 February 2017.

The planned project is classified as a project likely to have a significant impact on the environment, as specified in Paragraph 3 Clause 1 point 65, 60 of the regulation of the Council of Ministers dated 9 November 2010 *on the types of projects which can significantly affect the environment* (Journal of Laws of 2016, item 71), hereinafter "EIA Regulation".

In accordance with Article 75 Clause 1a in conjunction with Article 75 Clause 1 point 1, letter "i" of the act of 3 October 2008 *on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments*, hereinafter "EIA Act", the Regional Director for Environmental Protection in Wrocław is the competent body responsible for issuing a decision on environmental conditions for this project.

The body has determined the group of parties to the proceedings based on the register maps attached to the proceedings, with the investment area and its impact area marked, as well as on the basis of the submitted list of entities and plots. The parties to the proceedings are the investor and owners, perpetual users and managers of the properties situated on the investment site and within its impact area. The number of parties to the proceedings is more than 20. In relation to the foregoing and as stipulated in Article 74 Clause 3 of the EIA Act, the body has notified the parties to the proceedings of all the activities of public administration bodies on the basis specified in Article 49 of the *Administrative Procedure Code* act by way of announcements. The announcements were published on the notice board and in the Public Information Bulletin of Regional Director for Environmental Protection in Wrocław and on the notice boards in the Municipal Office in Wrocław, Municipal Office in Długoleka and Municipal Office in Czernica.

With the notice and announcement of 24 February 2017, respectively, reference No.: WOOŚ.4233.2.2017.ŁCK.2 and WOOŚ.4233.2.2017.ŁCK.3, the body has notified of the commencement of administrative proceedings concerning the issue of the decision on environmental conditions for the project and of

possibility of active participation in each stage of the proceedings.

Together with the Application for issuing the decision, the Applicant submitted the Project Information Sheet [Wrocław, February 2017, a team of the following authors: Dr Jerzy Krajewski, M.Sc. Eng. Tomasz Wróblewski, M.Sc. Eng. Paweł Wójcik, M.Sc. Eng. Robert Kazana, M.Sc. Eng. Grzegorz Chudy, M.Sc. Eng. Jan Urbanowicz, M.Sc. Eng. Michał Putowski].

In accordance with Article 64 Clause 1 point 2 and Article 78 Clause 1 point 2 of the EIA Act, the Regional Director for Environmental Protection in Wrocław, with the letter of 17 March 2017, reference No.: WOOŚ.4233.27.2017.ŁCK.4, has requested an opinion of the State Poviats Sanitary Inspectorate in Wrocław as to the obligation to carry out an environmental impact assessment, and if such is found to be necessary, to determine the scope of the environmental impact assessment report for the said project.

The State Poviats Sanitary Inspectorate in Wrocław did not express the opinion in a timely manner as stipulated in Article 78 Clause 4 of the EIA Act.

The Regional Director for Environmental Protection in Wrocław has analysed the collected documentation in the context of the provisions of Article 63 Clause 1 of the cited act. In consideration of the information included in the PDS, the body has found that the said investment project, due to the scale and character of the project, may have a significant environmental impact and it is therefore required to carry out an environmental impact assessment. With the decision of 21 April 2017, reference No.: WOOŚ.4233.2.2017.ŁCK.9, it imposed the obligation to carry out an environmental impact assessment for the above-mentioned project and determined the scope of the environmental impact assessment report. The parties to the proceedings were entitled to lodge an appeal against the decision. Neither party has lodged any appeal for the above-mentioned decision within the statutory time.

By fulfilling the statutory disposition of Article 63 Clause 5 of the EIA Act, it issued a decision of 23 June 2017, reference No.: WOOŚ.4233.2.2017.ŁCK.11, on suspending the proceedings concerning the issue of the decision on environmental conditions until an environmental impact assessment report is issued.

An environmental impact assessment report, prepared under the supervision of Dr Jerzy Krajewski, was received on 11 August 2017, hence the reasons justifying the suspension of the proceedings have ceased to exist. On the same day, the Regional Director for Environmental Protection in Wrocław issued a decision reference No.: WOOŚ.4233.2.2017.ŁCK.13 on the commencement of proceedings concerning the issue of the decision on environmental conditions.

The report was supplemented on 26 October 2017. The body competent to issue the opinion before issuing the decision on environmental conditions was the State Poviats Sanitary Inspectorate in Wrocław. With the letter of 2 November

2017, reference No.: WOOŚ.4233.2.2017.ŁCK.21, the authority has requested an opinion of the State Poviát Sanitary Inspectorate in Wrocław before issuing the decision. With the decision of 21 November 2017, reference No.: ZNS-AD-651-6/17, the State Poviát Sanitary Inspectorate in Wrocław has evaluated the environmental conditions of project implementation in the context of hygienic and health requirements with the reservation that:

1. Waste management during investment implementation shall be conducted in accordance with applicable regulations.
2. The materials and raw materials used shall not cause a negative environmental impact, including an impact on the health of people.
3. Equipment and machines used for works must meet the appropriate quality and technical standards, excluding the emission of hazardous contaminants to water and earth, mainly from the oil-derivative group (oils, greases, fuels).
4. Do not use machines and equipment, especially in the area of residential development, likely to cause elevated noise levels in their surrounding as well as having technical defects or damages likely to have adverse impact on the environment.
5. Ground water and soil shall be secured against any contamination during investment construction and operation.
6. An operating backyard shall be located on hardened area secured with a non-permeable layer.
7. Construction works shall be so organised as to limit the pouring of fuels and other chemical agents on the construction site.
8. Effective access to the construction site and speed limits near the construction site shall be ensured in the phase of investment implementation.
9. In the phase of investment implementation and during its operation, all recommendations and conditions shall be followed in scope of environmental protection and human health, as specified in the project's environmental impact Report prepared at the stage of obtaining the decisions on environmental conditions, in particular in scope of soil and water conditions, water and sewage management, air pollution and noise emission.

The reservations specified in point 1, 2, 5, 9 were not provided in the conclusion of the decision because the principal objective of obtaining the decision on environmental conditions is to lay down such project implementation conditions to secure, in the broadest possible scope, the conditions of environmental protection, by reconciling them with the interests in favour of project implementation. It is an obvious fact to state that the investment should be implemented in accordance with and based on the valid legal regulations. The

conditions set out in the decision on environmental conditions should define in detail the actions to be taken to mitigate a negative impact of the investment on the environment. In accordance with Article 80 Clause 1 point 2 of the EIA Act, when issuing a decision on environmental conditions, the body takes into consideration the stipulations included in the environmental impact report, however, it is not bound by such conditions. The project's environmental impact report is the evidence which is to help the body to make a decision based on the merits. Pursuant to Article 7, Article 77 and Article 80 of the *Administrative Procedure Code* act, the body is obliged to make own stipulations to verify the environmental impact report. For this reason, the recommendations and conditions indicated in the environmental impact report shall be taken into account and considered where substantiated in the light of the overall evidence material collected in the case.

Article 21 of the EIA Act provides that data about the application, about the decision on the obligation to conduct an environmental impact assessment, about the Report, is included in the publicly available list of data about documents containing information about environment and its protection, respectively, under number: 50/2017, 181/2017, 885/2017.

The body commenced the proceedings with public participation. In accordance with Article 79 Clause 1 of the EIA Act, the Regional Director for Environmental Protection in Wrocław, based on Article 33 of the cited act, with the announcement of 2 November 2017, reference No.: WOOŚ.4233.2.2017.ŁCK.22, made publicly available information about the planned project, i.e. about:

- commencement of the proceedings;
- commencement of the environmental impact assessment for the project;
- the subject of the decision to be issued in the case;
- a body competent to issue the decision and the bodies competent to issue the opinion;
- the possibility of familiarising oneself with the necessary case documentation and about the place in which it is made available for reading;
- possibility of submitting comments and applications;
- the method and place of submitting comments and applications, indicating at the same time the period of 30 days for their submission;
- a body competent for consideration of comments and applications.

Everyone could familiarise oneself with the whole documentation of the case until the day of making publicly known the planned project, i.e. from 3 November 2017 until 4 December 2017 (inclusive). The documents were made available for viewing in the office of the Regional Directorate for Environmental Protection in Wrocław at T. Kościuszki 82, room 13W between 8 a.m. and 2 p.m. Everyone

could also submit comments and applications regarding the planned project in writing at the above-mentioned address, verbally for the record or in the electronic version without having to provide a safe electronic signature from 3 November 2017 to 4 December 2017 (inclusive). A body competent for consideration of comments and applications was the Regional Director for Environmental Protection in Wrocław. The body informed the society in the announcement that comments and applications filed after the established time limit would not be considered. No one filed any comments and applications in the established time limit.

Pursuant to Article 3 Clause 1 point 11 of the EIA Act, information about the planned project was made publicly available by:

- announcing on the notice board in the office of the body competent in the case, i.e. on the notice board of the Regional Directorate for Environmental Protection in Wrocław;
- publishing the information on the website of the Public Information Bulletin of Regional Director for Environmental Protection in Wrocław (rdos.wroclaw.gov.pl);
- announcing the information about the planned project by announcing as customarily adopted in the implementation place of the planned project by posting the announcement on the notice boards in: the Municipal Office of Wrocław, Municipal Office of Długołęka, Municipal Office of Czernica, and also by posting the announcement on notice boards and poster posts in the investment implementation location;
- by announcement of the information as customarily adopted in the towns as applicable for the subject of the proceedings, i.e. on notice boards in: the Municipal Office of Wrocław, Municipal Office of Długołęka, Municipal Office of Czernica.

No comments and applications were filed in the established time limit.

Before issuing the decision, as defined in Article 10 Paragraph 1 of the *Administrative Procedure Code* act, the Regional Director for Environmental Protection in Wrocław, with the notice and announcement of 8 December 2017, respectively, with reference No.: WOOŚ.4233.2.2017.ŁCK.25 and WOOŚ.4233.2.2017.ŁCK.26, informed the parties to the proceedings that the entire evidence had been collected on issuing the decision on environmental conditions for this project and about the possibility of expressing one's opinion as to the collected evidence and to submit requests before issuing the decision.

No party submitted comments or applications to the proceedings.

Within the scope of the conducted administrative proceedings on the environmental impact assessment, a set of documentation compliant with Article 74 Clause 1 of the EIA Act was submitted for consideration.

The body evaluated potential environmental impacts and hazards connected with project implementation and operation by analysing the collected evidence about the planned project. The analyses presented in the Report allowed to determine the necessary measures which have to be undertaken to secure and mitigate negative impacts, and also to define conditions of project implementation and operation, which are to ensure environment protection against negative environmental impact of the investment.

As per Article 66 of the EIA Act, two investment scenarios and one scenario without the investment were analysed in the Report submitted for evaluation. The report included:

1. the description of the scenario proposed by the applicant and a rational alternative scenario;
2. the scenario most favourable for the environment;
3. definition of the expected environmental impact of the analysed scenarios;
4. a justification of the scenario proposed by the applicant together with an outline of its environmental impact.

The zero scenario provided for that no works are carried out, and, as a result, the areas of the municipalities flooded until now would still remain in the flooding zone, hence the scenario was rejected. Under the programme and spatial concept of the extension of flood protection embankments in the valley of the Widawa River, two scenarios of design solutions were analysed, scenario I and scenario II.

The length of routes of flood protection embankments with an earth structure in the both scenarios is similar - in scenario I it is approx. 9,729 m, in scenario II it is approx. 9,567 m. Sheet pile walls will be installed along the sections with the same length of approx. 1,285 m. The extension of the "Przerowa L" embankment will also cover a section with the same length of approx. 1,950 m. In terms of technical and technological solutions the both options are similar. The impact on individual elements of the environment will also be similar. The difference between both scenarios consists of the different route of flood protection embankments along three sections. In case of the embankment route according to scenario II, this relates to right-bank side embankments on the section B-C and section D1-E1 within the village of Śliwice and left-bank side embankments on the section F1-H. The route of the embankment according to scenario II, on the section F1-H, will cut off an area of a riparian forest covering a few dozens of hectares from periodical flood water of the Widawa River. According to scenario II, on the section B-C, after disassembly of 4 single-family houses, the embankment route will run within the distance of about 60 m from the banks of the Widawa River, and in scenario I, the mentioned single-family houses will be preserved, and the embankment route will run within about 15-20 m from the bank slope of the river. The inter-embankment band wider by 40 m is obtained in scenario II. In scenario II, on the section D1-E1, within an area of the village of Śliwice, the embankment will intersect the Natura

2000 site Grędzińskie Forests PLH020081, unlike the embankment route in scenario I, where the route is running along the border of this area. If the embankment is routed according to scenario II at the Natura 2000 site, this will lead to destructions due to land occupancy, geomechanical transformation, tree cutting, destruction of habitats of plants and animals. If the embankment is routed through Natura 2000 site parallel to the Widawa bed, this will limit the extent of flooding of Widawa water on this area in periods of high water (it would cut off from periodical flooding with water). With regard to leaving a section of Młynówka Kielczowska with the length of 1.25 km on the outer-embankment zone (Scenario I) with the Investor ensuring at the same time biological flow in the bed of the watercourse along this section, scenario I is a solution more beneficial for the aquatic environment of this watercourse. The project's overall environmental impacts on protected areas, protected natural habitats and on flora and fauna, are smaller in scenario I. Scenario I was found to be most beneficial for the environment. The Regional Director for Environmental Protection in Wrocław considered the environmental impact of all the analysed scenarios and evaluated the foreseeable impacts of the project on particular elements of the environment, i.e. at the stage of implementation, operation and liquidation. The impacts for the implementation and liquidation stage are mostly the same. The Regional Director for Environment Protection in Wrocław, after having analysed the solutions proposed above and based on scenario validation, accepted the Investor's request, i.e. to implement the project according to scenario I proposed by the Applicant, which at the same time is the scenario most beneficial for the environment.

In determining the conditions of this decision, the body considered the results presented in the Report of the analysis of assessment of the project's impact on environmental objectives of part of the waters within the boundaries of which the project is implemented and on which it has impact.

The planned investment, in accordance with the Plan of water management on the Odra River basin area (Journal of Laws of 2016, item 1967), will be situated within the limits of four surface water bodies (hereinafter: JCWP):

1. JCWP Widawa from the Michalice reservoir to Oleśnica, code PLRW60001913659;
2. JCWP Widawa from Oleśnica to Dobra, code PLRW60001913679,
3. JCWP Graniczny Channel, code PLRW600023136769,
4. JCWP Oleśnica from Boguszycki Stream to Widawa, code PLRW600019136699.

For the above-mentioned JCWPs, the first three ones are, according to the PGWDO, natural water bodies, and the last one is strongly modified. All of them are characterised by poor condition.

In order to evaluate the impact of the project over time on the achievement of the environmental objectives identified for the JCWP, the authority analysed the impact of the project on biological elements (evaluated impact on ichthyofauna and possible impact on phytobenthos, macrophytes, benthic invertebrates), on hydromorphological elements (hydrological system, river continuity, morphological conditions), as well as on physical and chemical water quality elements which are supporting biological elements (temperature, oxygen levels, salinity, water acidity, biogenic conditions, specific pollutants). The impact of the planned project on the water environment will be linked to the construction and extension of flood protection embankments, to the transfer of the bed of Młynówka Kiełczowska, to the reconstruction of the outlet section of Mrówka, to the deepening of the riverbed and regulation of the banks of the Widawa in the area of bridges along Rieczna Street, Wilczycka Street and Kiełczówek weir, to Kiełczówek weir renovation, to construction and renovation of drainage ditches and to liquidation of one water pond and partially two small water reservoirs directly colliding with the route of the planned embankments.

The project's typical negative impacts include:

- direct destruction or depletion of natural habitats or habitats of species due to construction itself;
- elimination or disruption of the impact of key factors shapening the character of natural habitats or habitats of species on flooding areas leading to their complete destruction;
- impact on the level of ground water inside and outside the embankment;
- negative impact of works associated with repairs and maintenance of embankments during the breeding season;
- sectional deterioration of the quality of the riverside natural habitat or habitats of species that live in the river by changing the characteristics of banks along the sections of the river subject to construction works (within the area of bridges);
- periodic sludge accumulation or other disruptions to habitats as a result of earthworks performed in the riverbed;
- local change of water conditions in the place of construction of reservoirs and liquidation of drainage ditches.

A negative impact caused by the construction of flood protection embankments is related to their impact on the flood valley. The construction of new embankments is leading to disruptions in the free flow of flood waters and is cutting off the flooding area from the main riverbed. Changes in the dynamics of hydromorphological processes and in the quality of habitats on the outer-embankment zone can therefore be observed. Moreover, the embankments constitute a barrier causing the separation of the flow outside the riverbed, causing intensified erosion of the

existing fluvial forms and is leading to the formation of new sedimentation conditions. In case of embankments having an open character, having a smaller impact on the river environment, the runoff of rainwater and meltwater entering the river water is possible. Closed embankments support the stagnation of rainwater and may make the outer-embankment zone area to become swampier. The river embankments will decrease retention abilities and will lead to disappearance of many precious river habitats, thus leading to simplification of the environment structure and impoverishment of vegetation. The vegetation on the embankment line is damaged at this stage of implementation. A ground embankment together with reinforcement have to be executed to raise the embankments, which may impede the movement of animals. Earthworks carried out on embankments require the use of heavy equipment and lead to partial removal of vegetation. The construction of embankments is of relatively low importance for aquatic organisms, and embankment modernisation or reconstruction is of even lower importance because no new structures are created interfering with the river's flood areas. Modernisation works of the embankment system lead to complete or partial destruction of habitats and herbaceous vegetation within the area of embankments.

The trees growing on the embankment crest have to be often grubbed out. The structure of vegetation is simplified as a result of reinforcement and changes in subsoil roughness take place. Embankments are designed for the analysed project mainly as earth structures, as far from the riverbed as possible. Along certain sections, the newly constructed embankments will be located behind the existing embankments, which are not planned to be disassembled due to precious species of trees growing there and due to trees forming the positions of protected species. This type of embankments will not have any effect on elements of water quality. The embankments near the Natura 2000 site Grędzińskie Forests PLH020081 will be routed along the boundary of the area, thus enabling to preserve its integrity and mitigating a negative impact on the surface of natural habitats. This will minimise tree cutting and will not limit the periodical flooding of the river in this area. The embankment from the side of the village of Śliwice is designed as an open embankment, due to the existing land elevations providing natural antiflood protection. The precious natural habitats and positions were taken into account when designing the route of embankments, considering also releasing as much of the Widawa River valley as possible, including the disassembly of sections of the existing flood protection embankments and dikes which will have a positive effect on re-naturalisation of the outer-embankment area.

Under the investment, it is planned to improve the flow of the road bridges situated on the Widawa River. Such works will not cause however a significant negative impact on the current cross-section under the bridge. The both bridges will be designed in a way enabling the transfer of animals, and when impoundments occur, will enable the flow in the Widawa River valley.

The negative impacts related to works consisting of the reinforcement of

bank slopes:

- direct destruction or depletion of natural habitats or habitats of species due to construction itself in the place where the works are carried out;
- deterioration in physiochemical parameters when performing works downstream of the section concerned;
- changes in habitat conditions in the place where works are carried out.

The significance of such impacts depends on the length of the section covered, and also the type of material used for executing them. For the investment in question, the reinforcement will be executed along the sections of the bridges whose flow is improved. No new hydraulic structures will be created within the boundaries of aquatic ecosystems of rivers as a result of works encompassing the renovation of the Kielczówek gate weir and accommodation of the Przerowa weir to operate as a flooding gate, and their purpose is only to modernise and renovate the existing structures. The current water conditions in the river will not change after completion of the investment. The construction of reinforcement of bank slopes and flow improvement of the Widawa riverbed in the region of the bridges along Rzeczna Street and Wilczycka Street and in the region of the Kielczówek weir along the sections with the total length of about 230 m should not change their current technical parameters. The watercourse grade line will not change by desilting the bottom of the Widawa bed near such bridges. The flow rate along those sections will be the same as now. The inter-embankment zone will be lowered to a small extent and profiled as sloping towards the river to ensure water runoff.

The reserve dry flood reservoir in the outlet section of the Mrówka stream (Graniczny Channel) is designed as a side reservoir without separation of the Widawa riverbed. The scope of regulation works and changes in the existing course and shape of the Mrówka bed is designed for the total length of about 320 m. During the flood, the reservoirs will be closed with gates, and water will be pumped to the Widawa River. In normal conditions, the flow through the reservoirs will be free. The possible negative impacts due to such works include changes to the local hydrological and ecological conditions of the area, and also disruptions in the transport of debris and collection of sediments dragged by the watercourse.

The completed renovation of the Kielczówek weir will not change the conditions of water flowing through it. It will not change the value (height) of the normal damming level. The normal damming level (NPP) will remain the same and, as now, it will be from 118.13 m ASL (minimum damming level) to 119.40 m ASL (maximum damming level). The current water conditions in the Widawa will not change after the completion of renovation. The tailwater level will remain the same, as well. After completion of the project construction phase, the process of successive introduction of groups of vegetation and animals to the area of new and regulated beds of watercourses will begin. The destroyed habitats of vegetation

and animals will be restored on the existing and new sections of watercourses covered by regulation. For phytobenthos, the restoration process will last between 2 to 3 months, and 2-4 years for macrobenthos and macrophytes.

The liquidation of the Młynówka Kielczowska bed along 500 m will destroy the aquatic flora and fauna existing there, apart from the caught fish, and their habitats. A water pond will be removed under the investment and two water reservoirs will be partly removed. The destruction of each of the water reservoirs will result in the destruction of flora and fauna connected with this environment. This relates to aquatic vegetation, above-water vegetation, invertebrates, fish and amphibians, for which such a reservoir was a breeding site (reservoir removal may cause the elimination of the entire population of amphibians connected with this reservoir). This will lower water retention in the valley of the Widawa River. Bank regulation works and flow improvement works for the Mrówka stream along about 320 m and of the Widawa River along, in total, about 230 m, will be connected with the removal of trees and bushes growing on the bank slopes of the watercourses, with the destruction of aquatic vegetation and vegetation in the bank zone, with the destruction of invertebrates living in the bottom or on the bottom of the desilted sections, and partial destruction of invertebrates living in the water. The habitats of such vegetation and animals will also be destroyed. A periodical deterioration of living conditions of vegetation and animals (macroinvertebrates, fish) will also take place in the beds of such watercourses downstream of the conducted works in connection with periodical contamination of water with a suspension. Subject to maintenance will be about 2.2 km of the existing drainage ditches, and about 0.8 km of drainage ditches will be removed, as a result of which the trees and bushes growing on the slopes of the ditches will be removed, and flora and fauna connected with such structures and their habitats will be destroyed.

The planned works for the beds of the Widawa and Mrówka will not cause a substantial deterioration of the quality of habitats of the species living in such watercourses. Starting with the end of the project construction phase, the destroyed habitats of vegetation and animals will be successively restored. The analogous process will also occur along the transferred bed of Młynówka Kielczowska. The bed of the Mrówka stream will be separated with a constructed flood embankment near the outlet to the Widawa. An embankment culvert will be built under the embankment. The embankment culvert will be open in normal operating conditions, with free runoff of water from the Mrówka to the Widawa. An outlet section of 0.5 km of Młynówka Kielczowska will be removed and a new outlet section of 200 m entering the Widawa will be constructed. With the appropriate shape of the new bed (width, slope, profile of banks), the hydrological conditions of the watercourse may be similar to the current conditions. After construction of embankments, the part of Młynówka Kielczowska with the length of 1.25 km will remain on the outer-embankment zone. Two culverts will be made, intersecting the watercourse with the constructed outlet embankments, from the outer-embankment zone, and the inlet embankment, to the outer-embankment

zone. The inlet culvert will limit the flow of water to the part of the watercourse on the outer-embankment zone. It will be designed in such a way to ensure the flow rate required from the natural point of view (biological flow) for the remaining part of Młynówka Kielczowska.

With the correct functioning of the inlet culvert, biological flow in Młynówka will be maintained

The works planned under the project will influence locally the change of the bank structure of the Widawa and Mrówka stream (Graniczny Channel). However, with regard to the analysed JCWPs, the impact will not be significant along their entire distance. The hydrological regime, both, for the Widawa River and Młynówka Kielczowska, should be within the same quality class. The course of embankments along the Widawa River was planned as far from the riverbed as possible, and works within the bed (both, for flow improvement of bridges as well as weir renovation) will not change the damming height, flow rate and dynamics. The new bed of Młynówka Kielczowska is planned to be accommodated to the existing condition, by assuming a cross section and longitudinal inclination of the bottom similar to the current one. Such activities will allow to maintain the existing differences in average flow along the discussed watercourses. The change of the hydrological regime will relate to the Mrówka (Graniczny Channel) stream in case of maximum flows, resulting from the construction of the dry reservoir.

In scope of morphological elements, a change of the bank structure of the Widawa will be observed locally, connected with the reinforcements planned near hydraulic structures (two bridges and weir), and also due to limitation of the zone of natural flooding of the river connected with the construction of embankments. The revetment of banks along a short distance of the river will simplify the structure of the bank zone, but due to the scale of works, the impact in this scope, both local and for the entire JCWP, can be considered insignificant. The planned embankments are located as far as possible from the watercourse bed. Along certain sections, the newly constructed embankments will be located behind the existing embankments, which are not planned to be disassembled due to precious species of trees growing there and due to trees forming the positions of protected species. The embankments near the Natura 2000 site Grędzińskie Forests PLH020081 will be routed along the boundary of the area, thus enabling to preserve its integrity and mitigating a negative impact on the surface of natural habitats. This will minimise tree cutting and will not limit the periodical flooding of the river in this area. The embankment from the side of the village of Śliwice is designed as an open embankment, due to the existing land elevations providing natural antiflood protection. The precious natural habitats and positions were taken into account when designing the route of embankments, considering also releasing as much of the Widawa River valley as possible, including the disassembly of sections of the existing flood protection embankments and dikes which will have a positive effect on re-naturalisation of the outer-embankment area.

The impact on the quality of surface waters in scope of physiochemical elements (total suspended matter mainly) will exist at the project implementation stage. The contents of dissolved oxygen may be reduced if a large quantity of suspension is created. This will be a reversible impact, though, connected with the implementation stage of works and should not affect the physiochemical parameters of the entire JCWP. Turbidity of water will be minimised when works are carried out by sections under the protection of a cofferdam.

At the stage of project implementation, a negative impact may occur on the composition and number of macrophytes within the area of the planned works, the consequence of which will be destruction of the existing vegetation structure. The impact, however, will be partly reversible, because the structure of vegetation will be restored after completion of works. For the scale of changes not to be significant, measures were introduced in the conditions of this decision consisting of staged performance of works in the bed. Habitat conditions for macrophytes will stabilise at the stage of operation.

A negative impact on benthic invertebrates is connected with the construction of reinforcements.

Indirectly, a decrease in the number of macrophytes will influence the condition of benthic macroinvertebrates negatively. The use of solutions increasing the diversity of habitats will facilitate to restore the composition of macrozoobenthos via drifts and compensation flights of adult insects within 2-3 years after investment execution.

A negative impact on ichthyofauna will include, most of all, water turbidity during the conducted construction works - bed widening, construction of revetments. A high concentration of mineral particles maintaining for a long time would have a negative impact on the health condition and increased mortality rate, especially of fry (this is caused by deposition of fine mineral particles on the gills damaging them). Moreover, longer periods of water turbidity lead to reduced photosynthesis and deteriorated conditions of the environment and impeded visibility. A short-term increase in suspension concentration is less dangerous, though. Temporarily, the existing high concentrations do not pose a high risk, and only limit the time of fish feeding. The Widawa River is the type of a sandy and clayey lowland river (19 abiotic type of river), the bottom of which consists of sand with different grain size or clay, often with the addition of gravel, sometimes silt and marls. The Mrówka stream, though, is a type of stream on areas under the influence of peatbog-forming processes (23 abiotic type of river), the bottom of which consists of a dominant limited substrate with an admixture of sands or gravels, and of detritus in the stagnant side branches and oxbow lakes. In such types of watercourses (both rivers are of the lowland type), a suspension will form during performance of works, which, due to a weak current, may stay long in midwater, which will have a negative impact on oxygen conditions in the water and on aquatic organisms downstream of the conducted works.

In accordance with the classification of underground water bodies valid since 2016, the investment area is situated within the JCWPd PLGW600096 site, characterised by good quantitative and chemical (qualitative) quality.

The protection of water consists in ensuring its highest possible quality, with maintaining the quantity of water at the level ensuring the protection of biological balance, in particular by:

- maintaining the water quality above or at least at the level required in regulations;
- achieving the quality of water at least at the level required by regulations, when it is not achieved.

The quality of water is determined considering the quantity of substances and energy in water and the degree of ability of functioning of water ecosystems.

In case of underground water and their supply areas, they are subject to protection consisting of, in particular:

- reduction in the risk of contamination of such water by limiting the impact on their supply areas by creating protection zones of midland water reservoirs;
- maintaining the balance of resources of such water.

Considering the nature of the project, its functioning and location within the Widawa valley, the Quaternary aquiferous stage of ground water is of basic importance here for evaluating its impact on ground water.

The first Quaternary aquiferous stage of ground water on the area of the planned project occurs at the depth of 0.5 - 2.9 m BGL. The water table of this level is mainly of the free character. This level, connected by permeable formations, is in constant hydraulic contact with the water of the Widawa river. The alluvial covers existing on the land surface do not create a continuous horizon, and only exist as patches with a variable length. Their depth is 0.5 - 3.0 m, most often, however, not more than 1.0 m. The data above shows that the first aquiferous stage is located low, and the ground water on the area in the surrounding of embankments have low resistance to contaminants coming from the land surface.

The earthworks connected with investment implementation, including execution and drainage of excavations, may cause local, small, short-term changes in ground water levels, which, after completion of works, will stabilise on the original level. A potential, negative impact on ground water in the construction phase of the planned project may include leakages of oil-derivative substances from the working and parked machines and cars, and leaking oil when filling the machines.

Filtration may take place in the subsoil under the planned embankments on the area of the planned project during the flow of high water and locally the hazard of hydraulic cut-throughs on the outer-embankment zone. The body of flood protection embankments and the subsoil underneath will be sealed with a vertical anti-filtering membrane or a sealing (anti-filtering) screen laid on the embankment

slope from the upstream side. In order to ensure possible contact of underground water between the inter-embankment zone and outer-embankment zone, a vertical anti-filtering membrane, as well as a sealing screen in the underground part will be anchored in such a way that they do not reach the layer of impermeable grounds. Such solution will allow a free flow of ground water in the river valley, thus extending the filtration path. By executing the membranes, the ponding of ground water will take place on the outer-embankment zone in periods of strong rainfall, which may lead to the formation of local damped areas and stagnation of water on the land surface. The problem will be solved by constructing a network of melioration ditches on the outer-embankment zone, diverting the collecting excess water to collecting channels transferring water to the river through culverts with return flaps or through embankment gates.

As already indicated above, the project according to the investment scenario is located in the direct vicinity of a site with relevance for the Community - Grędzińskie Forests PLH020081.

Specific environmental objectives exist on the water body area, within the limits of which the project is implemented, due to the existence of protected areas included in the statements mentioned in Article 113 Clause 4 of the *Water Law* act (Journal of Laws of 2017 item 1121 as amended):

- areas sensitive to eutrophication caused by contaminations coming from municipal sources (the territory of the whole Poland);
- areas designated for the protection of habitats or species, established in the noise protection act, where the maintenance or improvement of the status of water is an important factor in their protection. A site with relevance for the Community - Grędzińskie Forests PLH020081, exists in the investment area.

It was found after having analysed a potential impact of the said project for the effect on Natura 2000 sites that the project will not have any significant adverse impact on the protection objectives of the above-mentioned Natura 2000 site.

It was found as a result that investment implementation does not threaten the achievement of environmental objectives.

The wastes generated during the investment implementation will be re-used if possible or removed as per the valid regulations for the performance of construction works.

The investment implementation does not generate technological sewage. The operating backyard will be equipped with portable sanitary facilities.

Emissions from the equipment used during construction, including heavy means of transportation, will have an impact on atmospheric air during construction. Vehicles will be parked on hardened surface. The performance of works will cause periodical nuisances related to fugitive emission of atmospheric pollutions as a result of work of diesel construction equipment. They will mainly

occur in the place where works are performed, especially the emission of compounds produced from combustion of fuels will be seen.

Earthworks will uncover the land surface in the part not protected with plants. Weather erosion may occur on the uncovered land during strong wind breezes (typical especially for autumn and the end of winter) and air dusting may increase locally. The noise nuisance in the construction phase will be generated by working machines and traffic of vehicles. The aforementioned nuisances will be temporary, however. The impact of noise will be limited to the stage of works performance and, in the meanwhile, related nuisances may occur, and will be short-term according to the advancing front of works. The emission sources of contaminants to atmospheric air will be fugitive emission of fumes during traffic of trucks (transport of personnel, transport of earth masses for embankment construction, delivery of construction materials, delivery of concrete) and work of machines (bulldozer, excavator, loader, roller, vibro-hammer, lift) and different equipment. The basic pollutions emitted to the air, coming from the combustion of fuel oil in engines of machinery and vehicles, include dust, gas pollutions. Dusting from the land surface may also be expected during the travel of vehicles and earthworks, especially during longer periods without rain. The traffic of machinery and vehicles during works connected with the construction and extension of flood protection embankments and construction of the related infrastructure, will take place on the existing roads, along temporary technological roads and on the constructed service roads on the crest and along the embankments. The delivery of large quantities of soil will especially require a very large number of truck transports in the constant system. In addition, during performance of concrete works, concrete vehicles will be moving constantly. Vehicles' traffic connected with the construction phase of the project will periodically deteriorate aerosanitary conditions (fumes, dust), and will also cause vibrations in the vicinity of their traffic routes. This will cause some burdens for the local residents. The basic works connected with embankment construction will be performed by a crawler bulldozer. Structural elements in form of steel sheet pile walls using a vibro-hammer suspended on a mobile crane will be made on two sections instead of earth embankments. The existing "Przerowa L" embankment will be extended by widening and raising the embankment body. The soil representing the embankment body will be compacted with a light vibrating roller. After constructing service roads, embankment crossings, embankment culverts and drainage ditches, the embankment will be covered with humus using a light hydraulic excavator, and then sown with a mixture of grasses, which will reduce dusting. The operation of machinery and equipment and passages of vehicles will not take place simultaneously. Works relating to embankment construction will be moving gradually along its route. The emitted contaminations will be dispersed during the works conducted by the working machines and passing vehicles, which should not have any greater effect on the condition of air pollution outside the investment area. The emission of such contaminations will occur in short periods of time. The occurrence of short-term,

elevated values of concentrations of the mentioned contaminations can be expected locally, in the neighbourhood of working machines and routes of the passing vehicles. Air pollution will be periodical, typical for construction works, and will only relate to the time of investment construction and will cease after completion. After the end of works connected with the construction of the project facilities, at the stage of operation, the sources of emission of pollutants to the air will be maintenance works carried out twice a year including grass mowing with diesel mowers on the crest and embankment slopes and passages through a service road with a vehicle with staff controlling the embankment condition, a few times a year.

Hence, the impact of the emitted noise and pollutants to the air will be negligible and can be omitted in considerations.

The protection against noise consists in the assurance of the best possible acoustic condition of environment, particularly as a result of maintaining its level under permissible value or at least on this level as well as by the reduction of noise level at least to its permissible level, unless the latter is met. The emission sources of noise will be the traffic of trucks (transport of personnel, transport of earth masses for embankment construction, delivery of construction materials, delivery of concrete) and work of machines (bulldozer, excavator, loader, roller, vibro-hammer, lift) and different equipment. The traffic of machinery and vehicles during works connected with the construction and extension of flood protection embankments and construction of the related infrastructure, will take place on the existing roads, along temporary technological roads and on the constructed service roads on the crest and along the embankments. The delivery of large quantities of soil for embankment construction will especially require a very large number of truck transports in the constant system. In addition, during performance of concrete works, concrete vehicles will be moving constantly. Vehicles' traffic connected with the construction phase of the project will periodically deteriorate the acoustic climate in the vicinity of their traffic routes. The nearest residential buildings are located 20-30 m from the conducted works. The operation of machinery and equipment and passages of vehicles will not take place simultaneously. One machine will operate most often along one section with the simultaneous passage of a vehicle, and works relating to embankment construction will be moving gradually along its route. Apart from the basic erection of flood protection embankments, other earthworks, construction works and demolition works will be performed in various locations and at different times. The emitted noise will be dispersed during the works conducted by the working machines and passing vehicles. As a result, the noise emission along the particular sections of the constructed embankments will be local. Given the planned scope and nature of works, their performance place and area, management of the areas adjacent to the embankment, permitted noise levels may be temporarily exceeded at the construction stage of the planned project at daytime on the acoustically protected areas (single-family houses and farm

buildings). The nuisance will be of periodical character, typical for construction works, and will relate to the investment implementation period only and will end upon its completion. At the stage of operation of flood protection embankments, the sources of noise emission will be maintenance works carried out twice a year including grass mowing with diesel mowers on the crest and embankment slopes and passages through a service road with a vehicle with staff controlling the embankment condition, a few times a year.

It is planned to reconstruct the sections of road structures along Wilczycka Street and Rzeczna Street as part of the planned project. It is planned to transfer a part of Wilczycka Street at a distance of about 650 m. The impact on the implementation stage and potential liquidation in scope of emission of noise and contaminants to atmospheric air will be similar to the impacts connected with reconstruction of the flood protection system of the Widawa Valley. The analyses performed for the purpose of the project have shown that such structures do not influence largely the aerosanitary condition of atmospheric air and the permitted noise level at the operation stage. Due to a small traffic level on such roads (about 392 vehicles per day for 2023 along Wilczycka Street), the permitted standards of pollution and noise emission on the neighbouring areas will not be exceeded.

Protection of the soil and water environment is linked to the proper organisation of works, including the construction site location and technical roads at the stage of investment implementation.

The land planned for storage of materials will be secured with non-permeable material to protect the surface layer of soil and the further part of soils and ground water (by infiltration). The equipment and vehicles used will be in a good technical order and operated in conformity with the operation instructions. In order to protect the soil and water environment, all repairs, maintenance procedures and other activities connected with building equipment operation will be conducted in the designated places such as repair workshops, service outlets, the civil works contractor's permanent base. The construction site and its facilities will be equipped with waste containers and sanitary facilities. Periodical and small impacts on surface water may exist at the implementation stage of the planned project. Earthworks will cause a periodical change of the existing soil structure (humus removal) and periodical runoff of rainwater from the area (uncovered ground) to melioration ditches and then to the river. As a consequence, water may be drained, periodically polluted with an organic suspension, but this will not pose a threat to the receivers of such water, because the suspension will undergo sedimentation.

During the construction of the project's structures, impacts on the landscape will occur as changes connected with land transformation as a result of the conducted earthworks and civil works. The conducted construction and extension of flood protection embankments will directly affect the landscape values, and the impact will be permanent and long-term. It will be difficult to revert the changes

made to the natural landscape. The earth embankments built along the river and the cutting of bushes, trees and forests colliding with the planned project will cause changes to the terrain surface profile. This impact will be mitigated by sowing mixtures of grasses on the embankment slopes, and also by planting trees and bushes as part of the planned nature compensation. After completion of the construction of the project structures, when a cover of herbaceous vegetation is formed on the slopes and when bushes and trees planted as part of nature compensation have grown, the negative consequences of visual deterioration of landscape values will be mitigated to some extent. The embankment on the smoothly inclined slopes covered with turf will interfere with the surrounding landscape to a smaller extent. It is even more important because embankments will be visible from the inter-embankment zone side and outer-embankment zone side. Nevertheless, the flood protection embankments constructed as earth embankments will be a dominant element and also strange in the natural river valley, which is additionally greatly emphasised by service roads routed along the crests of embankments and along their base. The embankments constructed will compromise the aesthetic values of the landscape of this part of the Widawa Valley.

The analysed project will have no significant impact on the climate in the regional or local scale. After the occurrence of extreme flood situations, the inter-embankment zone area flooded with backwater from the Odra-Widawa channel and with impoundment water from the Widawa River may remain under water for about 10 days. During the occurrence of inter-embankment zone flooding, because it lasts for short time, no climate phenomena will occur, and the micro-climate in its area will not change. During the construction of the planned project's structure, it is expected to remove about 2.4 ha of the deciduous forest, about 1,850 trees, including about 50 very large and old trees and about 0.95 ha of young bushes and trees. The compensation of plantings is planned under the project. In the construction stage, carbon dioxide, which qualifies to greenhouse gases, shall be emitted as a result of fuel combustion in cars and machines. The content of this gas in fumes is about 14-16%. Moreover, there will be small demand for electric energy during the construction stage in connection with the functioning of the operating backyard, including the use of staff premises (light, heaters, cookers, kettles), sanitary barracks (light, radiators and water heaters), working premises and storage premises (light), with work of some of the equipment and external lighting for the operating backyard.

Electricity consumption will indirectly cause emission of carbon dioxide and water steam to the atmosphere (greenhouse gases) during generation of such energy by a power plant. There will be no demand for electric power in the operation phase of the project. Mobile pumping sets will be used for transferring flood water from the Mrówka stream to the Widawa River during extreme flood events. Each pumping set will be equipped with a power generating unit generating electricity while consuming fuel oil. Carbon dioxide, which qualifies to greenhouse gases, shall be emitted as a result of fuel combustion. For smaller floods, water will be transferred by means of electrically powered pumping sets. Electricity consumption will indirectly cause emission of carbon dioxide and water steam to the atmosphere (greenhouse gases) during generation of such energy by a power plant. The quantity of greenhouse gases emitted in connection with the project implementation (construction, operation and liquidation phase) will not however be significant.

The planned project was designed in accordance with applicable hydraulic regulations which consider extreme events occurring in the environment connected with climate changes, which is regulated by applicable regulations concerning design, construction and operation of flood protection embankments. At the same time, the constructed embankments will be one of the elements improving flood safety of numerous towns situated on the both banks of the Widawa River. No measures will take place in the construction, operation and liquidation phase of the planned project, directly aimed at minimising its impact on the climate change. The direct measures will be to minimise lighting of the site operating backyards at night time in the construction and liquidation phase and nature compensation including planting the trees and restoring the forest areas.

The planned project will not lead to intensification of climate changes, because measures are proposed mitigating the impact of the project on climate changes, including:

- measures resulting in absorption of carbon dioxide - nature compensation including planting of trees and forest areas;
- activities resulting in the reduction of greenhouse gas emissions - to minimise lighting of the site operating backyards at night time in the construction and liquidation phase and reducing the work of vehicles and machines in idle run.

In the area of the planned project there are immovable monuments entered into the register of monuments being archaeological sites and historical sites entered into the municipal register of monuments existing along the route of the planned flood protection embankments and located near their course. Due to their proximity, all works related to the implementation of the investment should be carried out with caution and preceded by consultations with a competent monuments conservator. It is the body's opinion that a position of the monuments conservator is a sufficient guarantee that appropriate measures to protect such

sites are taken.

The implementation of the planned project will be a source of cumulative impacts with regard to the existing investments and those being implemented in the Widawa valley and, to a smaller degree, on other areas situated within the limits of the Wrocław Floodway System (WFS). Flood embankments were and are constructed in the river valley and works were performed and are being carried out connected with the renovation of bridges and other hydraulic structures. The construction of flood protection embankments together with infrastructure at such a long section of the river valley has resulted in the accumulation of different harmful impacts on the environment and nature.

As a result of embankment construction, land was occupied, including flooding area with fertile soil, the range of water flooding during impoundments was limited, landscape values of the river valley were deteriorated, which is largely caused by service roads routed along the crests of embankments and along their base. The trees and bushes along the river and near hydraulic structures were cut as a result of the investment, and as a consequence, habitats were destroyed. An additional negative impact relating to the removal of high plants will be limited absorption of carbon dioxide by such plants and limited oxygen production. The works carried out in the river bed consisting of construction, renovation and flow improvement of bridges, renovation of hydraulic structures, reinforcement of slopes and deepening of the river bed, have led to the accumulation of such impacts on the aquatic environment, on species of plants and animals connected with such environment.

The construction of flood protection embankments and the related infrastructure under the planned project will result in the accumulation of the above-mentioned impacts on the environment and nature. The execution of the investment is however justified by an overriding public interest - the purpose of the task is to improve the flood protection system of the Widawa river valley.

Investment implementation will not reduce the species diversity as it shall not cause extinction of any species within the area. Although the implementation of the investment in question shall cause changes in ecosystems and negative impacts on their particular elements, it was determined that by complying with the expected mitigating and compensation measures, the investment would not impact significantly the diversity of ecosystems and landscapes. In connection with the above, it was assessed that the implementation of the investment in question would not impact biodiversity, understood as intraspecies variability (genetic diversity), interspecies variability (diversity of species) and supraspecies variability (diversity of ecosystems and landscapes).

The investment, in terms of the type, category and quantity of hazardous substances, is not classified as a facility likely to be a source of serious failure as mentioned in Article 248 of the Act of 27 April 2001 *Environmental Protection Law* (Journal of Law of 2016, item 672). There are no grounds, either, to assess the

necessity of establishing a limited use area as mentioned in Article 135 Clause 1 of the Environmental Protection Law act.

Due to the project's location in relation to the state borders and its scale, it is not necessary to assess the cross-border impact on environment.

Based on the submitted documentation taking into account the impact assessment as well as potential environmental hazards associated with the implementation and operation of the investment and indicating a number of necessary actions in order to secure and minimise the potential negative impacts, the body decided to impose conditions on project implementation, which are listed in the conclusion of the decision. The conditions determined in the conclusion of the decision were imposed also to limit the impact of the planned investment on the natural environment, including the objects of protection of the Natura 2000 site.

The purpose of the condition imposed in point I.2.1. obliging to perform nature supervision is to guarantee that performance conditions of works are met, which require expertise, and the presence of specialists is to guarantee appropriate response in sudden cases, not anticipated at the investment planning stage, which will minimise the risk of negative impact on the natural elements existing within the region or in direct neighbourhood of the conducted works.

The conditions in point I.2.2. - I.2.3. were introduced to protect the top humus soil layer and ensure its use after the end of investment implementation for reinstatement of degraded areas.

The conditions defined in point I.2.4. and I.2.5. aim to minimise land occupation for the investment, so it has minimum impact on the adjacent areas, especially green areas.

The execution of condition in point I.2.6. will help to protect the areas being potential places of occurrence of wetland habitats with precious reeds growing there and other plants growing within their limits, as well as potential habitats of amphibians against destruction or degradation due to backfilling with excess ground during project implementation. It should be highlighted that all species of amphibians existing in Poland are also protected under the *Regulation of the Minister of the Environment of 16 December 2016 on protection of animal species (Journal of Laws of 2016, item 2183)*.

The conditions defined in point I.2.7. - I.2.11. meet the provisions of Article 75 of the *Act of 27 April 2001 on Environmental Protection Law (Journal of Laws of 2017, item 519, as amended)*.

The conditions defined in point I.2.12. - I.2.15. and I.3.1. and I.3.2. result from the necessity to mitigate a negative impact of the project in question on the species of vertebrate animals (especially birds and bats) in the breeding season and when raising the young individuals. In addition, as potential positions and habitats of protected species of animals could be destroyed, special principles were introduced valid while cutting trees with their breast height over 50 cm, and, therefore, the conditions defined in point I.2.13. - I.2.15. and I.3.1. and I.3.2. connected with undertaking actions aiming to reduce a potential negative impact on Hermit Beetle *Osmoderma eremita* and Great Capricorn *Cerambyx cerdo* - the species of invertebrates listed in annex II of the *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ EU E.L92.206.7, OJ EU-sp.15-2-102 as amended)* and subject to strict species protection under the *Regulation of the Minister of the Environment of 16 December 2016 on protection of animal species*, on their positions located outside the Natura 2000 sites, however, significant for preservation of species continuity, as well as protection against killing of bats (all the species existing in Poland are subject to protection under the above-mentioned regulation), for which trees (especially their hollows) may be a place of daily rest or winter hibernation.

The conditions defined in point I.2.16. are the fulfilment of Article 82 Clause 1 of the *Act of 16 April 2004 on Natural Environment Protection (Journal of Laws of 2016, item 2134, as amended)*, and aim at protecting tall greenery growing in the immediate vicinity of the conducted works.

The conditions defined in point I.2.17 - I.2.20 were imposed to protect and minimise the degree of destruction of patches of natural habitats due to the

conducted works.

The conditions defined in point I.2.21 - I.2.23 aim to eliminate and prevent the spreading of foreign species of plants along the river valley, which are often expansive species, eliminating native species. This condition is especially important due to the fact that works are to be carried out in the direct neighbourhood of the river bed, which may greatly facilitate the spreading of expansive species of plants. The defined method of removal of plants should allow their effective elimination.

The conditions in point I.2.24. -I.2.25 aim to protect ichthyofauna, by not conducting the works in the fish spawning period and limiting water turbidity. It is also recommended that all works in the beds of watercourses and on their banks are carried out in consultation with and cooperation with the Polish Fishermen Association.

The method, defined in point I.2.26., of removing the outlet section of Młynówka Kielczowska was imposed to protect aquatic organisms living in the said section of Młynówka, especially fish and molluscs.

The condition in point I.2.27. was imposed to limit a negative impact on fish and amphibians and other animals using bottom sediments and aquatic plants as their shelter, feeding, wintering and breeding site.

The condition in point I.2.28. was imposed to limit changes in the existing condition of ecosystems located within the region or in direct neighbourhood of ditches. The watercourse bottom desilting and the related water level reduction may adversely affect the existing moisture conditions of vegetation complexes and lead to the deterioration of the appropriate condition of natural habitats. The changes in moisture conditions of vegetation complexes may lead to the loss or deterioration of the condition of habitats of protected plants, fungi or animals.

The conditions in point I.2.29. - I.2.31. are connected with the necessity to mitigate the investment's impact at its construction stage on species of animals, especially amphibians. The condition in point I.2.31. is aimed at limiting the death rate of adult amphibians or their development forms as a result of the disappearance of stagnant water before the period of transformation of young individuals.

The condition in point I.2.32. was imposed to protect bats - long-eared bats and Daubenton's bats, whose shelters were found in the structure of the bridge along Rzeczna Street.

The condition in point I.2.33. aims to create conditions for acceleration of the succession process and naturalisation of the balance reservoir.

The fulfilment of the condition in point I.2.34. is aimed at facilitating the entrance of the desired herbaceous plant species in the area subject to the works. It is also aimed at preventing spontaneous entrance of invasive plant species in

the river valley.

The condition defined in point I.2.35. was imposed in order for the authority supervising Natura 2000 areas to obtain information on the scope and manner of performing the measures, which shall supplement the documentation concerning project implementation, and to obtain a confirmation of a relevant specialist's participation in the implementation of mitigation measures, which should ensure appropriate protection of natural habitats as well as plant and animal species. If studies reveal a previously unforeseen increase of the negative influence on the natural environment, it shall be possible to indicate and take additional measures minimising those impacts.

The condition in clause I.2.36 is to limit contamination of watercourses.

The conditions specified in point I.2.37. - I.2.43. aim to minimise the project's unfavourable impact on the living conditions of local residents, by ensuring appropriate waste management, minimising the possibility of contamination of the soil and water environment and minimising the emission of noise and contaminations to the atmospheric air. The conditions were partly imposed under the decision of the State Poviát Sanitary Inspector in Wrocław.

The condition in point I.3.3. was imposed to ensure the flow capacity of the migration corridor such as the bed and bank zones of the Widawa River for animals moving along the river.

The condition in point I.3.4. was imposed to limit changes in hydromorphological elements of the bed of Młynówka Kiełczowska. Such conditions will contribute to the creation of a diversified structure of the bottom and bank zones and will give the relocated section of the watercourse a character similar to the remaining part of Młynówka. In addition, the condition was imposed because gabion mattresses and baskets may be dangerous traps for animals.

The condition in point I.3.5. was imposed to minimise the negative impact of the project on amphibians, whose habitats (places of shelter and rest) will be destroyed during the works. Moreover, small places of stagnant water will diversify the ecosystem of the bank zones of the watercourse and will be a source of food, biogenes and shelters for other organisms, e.g. invertebrates.

The condition in point I.3.6. aims to secure against excessive drainage of the ecosystems (mainly meadows and forests) located in the outer-embankment zone of the Widawa, and also to slow down the runoff of water and increase water retention in the channel.

In order to ensure possible contact of ground water between the inter-embankment zone and outer-embankment zone, as per the condition defined in point I.3.7., a vertical anti-filtering membrane, as well as a sealing screen in the underground part will be anchored in such a way that they do not reach the layer of impermeable grounds. Such solution will allow the free flow of ground water in the river valley, thus extending a filtration path.

In order to limit changes in water conditions, the body decided to impose a condition defined in point I.3.8.

Due to the nature of the project, it is not fully feasible to mitigate the negative impacts on natural elements occurring within the immediate vicinity of the project. The provisions in conditions of points I.4.1-I.4.7 aim to compensate for the losses connected with the destruction of natural habitats, habitats of animals of protected species and cutting a large number of trees and bushes. The imposed compensating measures are not the compensation in the meaning of Article 34 and 35 of the above-mentioned nature protection act and fulfil the provisions of Article 75 Clause 3 of the above act Environmental Protection Law, and the scope of such measures will contribute to reinstatement of the destroyed habitats and to balancing the environmental conditions arising after the implementation of the planned investment.

The conditions defined in point I.4 were imposed due to the necessity to compensate for the damages made to the patch of the nature habitat - Oak-elm-ash riverine forests (code 91FO), and also for removal of trees and bushes. In addition, the conditions of natural compensation aim to restore the habitats of amphibians, nesting places of birds and shelters of bats destroyed under the project implementation, by: restoration of water reservoirs and by hanging breeding boxes for birds and bats.

As it is necessary to examine the influence of the Kiełczówek weir on the migration of fish, monitoring investigations were recommended. The monitoring results and the conclusions arising on such grounds may form a basis for implementation of additional compensating measures. A post-implementation analysis in the scope defined in this decision was imposed to check the analysis of the Kiełczówek weir's impact on fish migration. Due to the above, monitoring investigations and a post-implementation analysis is recommended in point I.5 (condition I.5.1). The monitoring results and the conclusions arising on such grounds may form a basis for implementation of additional compensating measures.

During the proceedings on issuing the decision in question, the environmental protection body allowed all evidence which might have contributed to a correct determination of the case, and the determination was made on the basis of the entire evidence collected during the proceedings, by which the body met the requirements of Article 75 Paragraph 1 and Article 80 of the *Administrative Procedure Code*.

In the event of a collision with sites of plants, animals or fungi of the species protected pursuant to *resolutions of the Minister of the Environment: of 9 October 2014 on protection of plant species (Journal of Laws of 2014, item 1409), of 6 October 2014 on protection of animal species (Journal of Laws, item 2183), and of 16 October 2014 on protection of fungus species (Journal of Laws, item 1408)*, in relation to which bans apply as defined in the aforementioned resolutions, prior to commencing the works the Investor should obtain a separate permit from the appropriate body for actions prohibited in relation to these species, in accordance with Article 56 of the aforementioned *Environmental Protection Act*, and once that permit is obtained - the works are to be conducted taking into consideration the conditions stemming from the permit.

In the event of performing the conservation of the existing melioration ditches, the date and method of performance shall be agreed upon with owners and tenants (e.g. of State Treasury land) of the land contiguous to the ditches. The purpose of the above is to determine whether the owner of the land contiguous to the ditch is a beneficiary of PROW 2014-2020 and, under the agricultural and environmental packet and the nature expert opinion made, there is no ban to deepen melioration ditches.

In view of the foregoing, it has been decided as in the conclusion of the Decision.

Notice

The parties may lodge an appeal against the present decision to the General Director for Environmental Protection via the Regional Director for Environmental Protection in Wrocław within 14 days of decision delivery.



REGIONAL DIRECTOR FOR ENVIRONMENTAL PROTECTION IN WROCLAW

Z-ca Regionalnego Dyrektora
Ochrony Środowiska we Wrocławiu
Regionalny Konserwator Przyrody

Katarzyna Łapińska
Katarzyna Łapińska

Deputy Regional Director for Environmental Protection in Wrocław
Regional Nature Conservator
Katarzyna Łapińska

Pursuant to Article 7 Clause 2 Act of 16 November 2006 on stamp duty (Journal of Laws of 2016, item 1827 as amended), the Lower Silesia Board of Amelioration and Water Structures in Wrocław is exempt from stamp duty.

Appendices:

1. Characteristics of the planned investment

Recipients:

1. Representative

Dariusz Figura

The Office of the Odra River Basin Flood Protection Project - 7436 POL ul.

Podwale 62a, suite 103, 50-010 Wrocław

2. The other parties to the proceedings as defined in Article 49 of the Administrative Procedure Code Act
3. to files

Copies to:

1. The Lower Silesian State Sanitary Inspector in Wrocław

**REGIONAL DIRECTOR FOR
ENVIRONMENTAL PROTECTION IN WROCLAW**

Appendix to the decision of the Regional Director for Environmental Protection in Wrocław of 29 December 2017, ref. No.: WOOŚ.4233.2.2017.ŁCK.27 54 for the project entitled: “WFS Widawa – the rebuilding of the flood management system of the communes and municipalities Czernica, Długołęka, Wisznia Mała and Wrocław”

1. Characteristics of the project.

The project in question, i.e. “WFS Widawa – the rebuilding of the flood management system of the communes and municipalities Czernica, Długołęka, Wisznia Mała and Wrocław” will be located on the area of the Lower Silesia Province, Wrocław Powiat, in the Municipalities of Czernica, Długołęka and Wrocław. The objective of the investment is to secure against flood the areas situated along the Widawa river at the section from km 21+500 to km 30+000. The planned investment will allow to secure against flood the areas situated in the Municipalities of Czernica, Długołęka and Wrocław.

2. Scope of works

2.1 Implementation scope of the planned project

The scope of the planned land development encompasses:

- preparatory works, including the execution of necessary removal of trees and bushes in the area of planned works together with grubbing out roots;
- the construction of flood protection embankments on the right bank of the Widawa River at the section of Wilczyce - Śliwice and on the left bank of the river on the section of Wilczyce - Wieściszów together with engineering infrastructure;
- expansion of the existing left-bank flood embankment of the Widawa River "Przerowa L" together with construction of engineering infrastructure;
- construction, extension and repair of internal roads connected with access to hydraulic structures;
- accommodation of the Przerowa weir to operate as a flooding gate;
- flow improvement of the road bridge along Rieczna Street in Wilczyce;
- flow improvement of the road bridge along Wilczycka Street in Wilczyce;
- renovation of the Kielczówek weir with construction of engineering

infrastructure;

- diversion of water from the Mrówka stream (Graniczny Channel) to the Widawa River;
- accommodation of Młynówka Kielczowska to the designed flood protection system;
- flood protection of Zielona Osada (former Sielska Zagroda) in Wilczyce;
- reconstruction/extension of the existing public roads colliding with the planned investment, including relocation (disassembly and construction in the new location) of Wilczycka Street in Wilczyce;
- partial disassembly - interrupting the continuity of the existing flood protection embankments and dikes;
- solution for a collision with the existing land infrastructure;
- land ordering and reclamation.

2.2 Construction of flood protection embankments along the right and left bank of the Widawa River together with engineering infrastructure

The scope of works included:

- construction of a flood protection embankment along the right bank of the Widawa River;
- construction and extension of a flood protection embankment along the left bank of the Widawa River;
- sealing of the subsoil and body of flood embankments;
- construction of service roads on the embankment crest or by the footing;
- renovation of the existing roads to ensure access to the planned hydraulic structures;

- construction of ditches and drainage systems, maintenance or renovation of the existing drainage ditches and liquidation of sections of ditches colliding with the investment;
- construction of embankment crossings to ensure the continuity of the existing public roads;
- construction of embankment culverts and construction of culverts along drainage ditches to ensure flow continuity in the existing melioration ditches.

The crest elevations of the designed embankments were determined in accordance with the Regulation of the Minister for Environment of 20 April 2007 related to technical conditions which should be observed for hydrotechnical structures and their location. For the embankments below Rzeczna Street in Wilczyce, i.e. right-bank embankments (section no. 1) and left-bank embankments (section no. 4), embankments are designed corresponding to class I hydraulic structures. For the embankments above Rzeczna Street in Wilczyce, i.e. right-bank embankments (sections no. 2 and no. 3) and left-bank embankments (section no. 5, no. 6 and no. 7), embankments are designed corresponding to class II hydraulic structures.

2.2.1 Construction of the right-bank flood embankment of the Widawa River includes:

- Section 1 from Srebrna Street to Rzeczna Street in Kielczów;
- Section 2 from Rzeczna Street in Kielczów to Lipowa Street in Śliwice;
- Section 3 from Topolowa Street in Śliwice to the connection with the existing right-bank embankment at km approx. 28+000 of the Widawa River.

2.2.2 Construction and extension of the left-bank flood embankment of the Widawa River includes:

- Section 4 from the connection with the left-bank dam at km 21+650 of the Widawa River to Rzeczna Street in Wilczyce;
- Section 5 from Rzeczna Street in Wilczyce to the Przerowa weir on the Przerowa stream;
- Section 6 Expansion of the left-bank flood embankment of the Widawa River "Przerowa L" from the Przerowa weir on the Przerowa stream to km 29+000 of the Widawa River;
- Section 7 from the connection with the existing left-bank dam at km 29+000 of the Widawa River to Widawska Street in Wieściszów;

2.2.3 Sealing of the subsoil and body of flood embankments

The body of flood protection embankments and the subsoil underneath will be

sealed with a vertical anti-filtering membrane or a sealing (anti-filtering) screen laid on the embankment slope from the upstream side. In the underground part, an anti-filtering membrane or screen will be anchored in subsoil in permeable layers. A vertical anti-filtering membrane is designed for embankments which will be situated within the reach of the dynamic backwater effect formed due to the transfer of flood water from the Odra to the Widawa valley, i.e. to the height of the Kiełczówek weir. For the remaining sections, the leak-tightness of the embankment body and subsoil underneath the structure is planned to be ensured with a sealing (anti-filtering) screen laid on the embankment slope from the upstream side. A vertical anti-filtering membrane is also designed for sealing the existing flood embankment "Przerowa L" along the entire length of reconstruction.

2.2.4 Construction/renovation of service roads

Service roads routed on the crest of embankments will be used for transport access and service roads along the embankments and flood protection walls

2.2.5 Construction of ditches and drainage systems, maintenance or renovation of the existing drainage ditches and liquidation of sections of ditches colliding with the investment

It is planned to execute drainage ditches or drainage systems along the chosen parts of embankments, the route of which crosses the directions of surface water runoff and may cross the existing drainage system in the embankment footing from the outer-embankment zone. Embankment culverts are designed in the places where the footprint of flood protection embankments is crossing the existing drainage ditches.

2.2.6 Construction of embankment crossings

The continuity of the existing public roads in the place of crossing with flood protection embankments will be maintained by the constructed crossings through embankments and exit ramps from embankments.

2.2.7 Construction of embankment culverts and culverts along drainage ditches

In the point where flood protection embankments are crossing the existing drainage ditches, embankment culverts will be executed, within the area of which places will be designated for placing a mobile pump with a power generating set for the duration of a flood defence action. Culverts ensuring free flow of water in a ditch will be executed in the points where service roads, routed in the flood embankment footing, and embankment crossings and exit roads, are crossing with the existing and planned drainage ditches. Along the sections of the ditches covered by maintenance, the existing culverts will be reconstructed or renovated.

2.2.8 Construction of slope stairs

2.2.9 Accommodation of the Przerowa weir to operate as a flooding gate

The existing Przerowa weir, on the Przerowa stream, in the planned flood protection system, will operate as a flooding gate. The following has been designed for works on the Przerowa weir:

- execution of new closures enabling to cut off the valley of the Przerowa stream and thus the valley of the Widawa river;
- to elevate the weir abutment.

It is planned to execute a service footbridge just downstream of the Przerowa weir

2.2.10. Flow improvement of the road bridge along Rzeczna Street

The scope of design works includes:

- performance of demolition works of the existing reinforcements;
- construction of revetments of slopes of the Widawa River banks upstream and downstream the bridge under a bridge structure;
- construction of revetments on the surface of the inter-embankment zone along the distance of the planned works from the headwater and tailwater side and under a bridge structure;
- disassembly of the existing revetments and construction of new revetments of the road embankment slopes in the region of bridge abutments;
- flow improvement of the Widawa River bed along the distance of the planned works from the headwater and tailwater side and under a bridge structure;

- bottom revetment in the region of the road bridge;
- the necessary felling and grubbing of trees and bushes together with grubbing, clearing and tidying up the area of the facility.

2.2.11 Flow improvement of the road bridge along Wilczycka Street

The scope of design works includes:

- performance of demolition works of the existing slope reinforcements, including, among others, under a bridge structure;
- construction of revetments of slopes of the Widawa River banks upstream and downstream the bridge under a bridge structure;
- construction of revetments on the surface of the inter-embankment zone along the distance of the planned works from the headwater and tailwater side and under a bridge structure;
- disassembly of the existing revetments and construction of new revetments of the road embankment slopes in the region of bridge abutments;
- flow improvement of the Widawa River bed along the distance of the planned works from the headwater and tailwater side and under a bridge structure;
- construction of a crossing for animals underneath the bridge structure on the left bank;

- the necessary felling and grubbing of trees and bushes together with grubbing, clearing and tidying up the area of the facility.

2.2.12 Renovation of the Kielczówek weir with construction of engineering infrastructure

The scope of design works includes:

- renovation of the weir's concrete structure (abutments, pillars, threshold, footbridge with stairs);
- renovation (replacement) of a steel structure of the main closures of the weir with hoisting mechanisms;
- renovation of the stilling basin and the downstream apron downstream of the structure;
- performance of demolition works of the existing bank reinforcements;
- execution of slope revetments in the near-the-weir zone from the headwater and tailwater side;
- construction of revetments of slopes of the Widawa River banks upstream and downstream the weir;
- construction of revetments on the inter-embankment area;
- flow improvement of the Widawa River bed;
- execution of an access road to the weir with a manoeuvring yard;
- the necessary felling and grubbing of trees and bushes together with grubbing, clearing and tidying up the area of the facility.

2.2.13 Diversion of water from the Mrówka stream (Graniczny Channel) to the Widawa River

The scope of design works includes:

- construction of a culvert in the place where the Mrówka stream is crossing the axis of the designed flood embankment with a pumping station;
- construction of a dry flood reserve reservoir;
- execution of stations of mobile pumps;
- execution of sectional regulation with flow improvement of the Mrówka stream bed upstream the existing road bridge along Wilczycka Street.

2.2.14 Accommodation of Młynówka Kielczowska to the designed flood protection system

The scope of design works includes:

- construction of a new bed of Młynówka Kielczowska at approx. km 0+500 with diversion to the Widawa River,

- construction of culverts on Młynówka Kiełczowska;
- elimination of the Młynówka Kiełczowska sections colliding with the investment.

2.2.15 Reconstruction/extension of the existing public roads colliding with the planned investment, including relocation (disassembly and construction in the new location) of Wilczycka Street

The planned route of the embankments is crossing/colliding with the existing public roads in three locations. The designed embankments are crossing Wilczycka Street in two points and Rieczna Street in one point. The collisions have to be solved for the planned investment.

The scope of design works includes:

- relocation (disassembly and construction in the new location) of Wilczycka Street colliding with the planned flood embankment;
- reconstruction/extension of Wilczycka Street by raising the grade line to the crest of the planned embankment in the place of crossing with the planned embankments;
- reconstruction/extension of Rieczna Street by raising the grade line to the crest of the planned embankment in the place of crossing with the planned embankments.

Relocation (disassembly and construction in the new location) of Wilczycka Street - the length of the new road section will be 650 m. The old road track will be disassembled in connection with construction of flood protection embankments.

Reconstruction/extension of Wilczycka Street by raising the grade line to the crest of the planned embankment - the section of the street covered by reconstruction/extension will be approx. 200 m. Reconstruction/extension of Rzeczna Street by raising the grade line to the crest of the planned embankment - the section of the street covered by reconstruction/extension will be approx. 120 m.

2.2.16 Flood protection of Zielona Osada (former Sielska Zagroda)

The scope of design works includes:

- Rzeczna Street will be elevated above the flood water level;
- the protecting pillar will be closed.

Reconstruction/extension of Rzeczna Street by raising the grade line above the flood water level - the section of the street covered by reconstruction/extension near "Zielona Osada" is approx. 250 m.

2.2.17 Partial disassembly - interrupting the continuity of the existing flood protection embankments and dikes

The scope of the task encompasses the following:

- interrupting the continuity of the right-bank flood embankment/dike from approx. km 27+500 to approx. km 28+000 of the Widawa River;
- interrupting the continuity of the left-bank flood embankment/dike from approx. km 26+100 to approx. km 27+100 of the Widawa River.



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