

Appendix 3 to Plan for the implementation and monitoring of natural compensation

In this Appendix to the Environmental Management Plan for the Odra-Vistula Flood Management the *Works Contract 1B.7 WFS Widawa - reconstruction of flood protection systems, commune: Czernica, Długołęka, Wisznia Mała and Wrocław*, the measures compensating the negative environmental impacts have been presented as guidelines for the Contractor under *the above mentioned Contract*.

Explanation of the table in Annex 3 to the EMP:

- unless otherwise specified in a given case, the **Task Execution Area** means the area of performing any preparatory works, essential works (including Permanent and Temporary Works) and any works related to the removal of defects and faults or the performance of unfinished works listed in the Certificate of Acquisition or revealed during the Defects Notification Period, together with the areas of necessary temporary activities,
- unless otherwise specified in a given case, the **Task Execution Period** means the period of performing any preparatory work, essential work (including Permanent and Temporary Work) and any work related to the removal of defects and faults or the performance of unfinished work specified in the Take-over Certificate or disclosed in the Defects notification period;
- unless otherwise specified in a given case, the term **Team of the Contractor** in the column Entity responsible means personally the EMP Coordinator in the team of the Contractor (referred to in item 89 in Appendix 1 to the EMP), cooperating with the Site Manager and the remaining part of the team of the Contractor (including, among others, a team of the environmental experts, a team of archaeological experts, sapper's supervision and OHS supervision).
- unless otherwise specified in a particular case, the term **Engineer's Team** in the Responsible Entity column means the personal Environmental Management Expert in the Contract Engineer's Team, working with the relevant Supervisors and the rest of the Engineer's Team.

NOTICE: In places where avoidance of negative impacts was not possible, in accordance with Polish legislation, compensations will be carried out under Article 75 of the Environmental Protection Law. The compensation measures indicated are not compensation at European level.

A) REQUIREMENTS RELATED TO THE IMPLEMENTATION OF MEASURES UNDER NATURE COMPENSATION

No	Issue	Location	Compensation action	Responsible party
A1.	General principles of conservation of living resources	Cadastral plots No.: 2 (cadastral district Osobowice, municipality Wrocław).	<p>Reproduction of patches of riparian forest habitat 91F0</p> <p>On an area of 7.2 ha, the habitat patches of the riparian oak-elm-ash forest (<i>Ficario-Ulmetum</i>) - code 91F0 shall be restored by planting the appropriate (typical) tree and shrub species for this habitat'</p> <p>The following principles must be observed when implementing planting:</p> <ul style="list-style-type: none"> a) the basic principles of forest farming must be respected throughout the planting cycle; b) propagating material complying with the seed regionalization (originating in the region to be planted) and natural forest regionalization must be used for planting; c) planting should be done in the months of September to October; d) the planted crops will need to be cared for properly, which in the period of the Task will be carried out under the supervision of an expert phytosociologist from the Contractor's team of nature experts; e) number of seedlings 8 thousand/ha, due to the extreme weather events occurring in recent years it is recommended to increase the planned number of seedlings by 10%; f) a <i>Quality Assurance Plan</i> for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP. <p>Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.</p>	Contractor
A2.	General principles of conservation of living resources	Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław)	<p>List of works necessary for the compensation</p> <ul style="list-style-type: none"> a) soil preparation <p>The work includes making furrows using machinery and equipment such as a forestry cutter or double-furrow plough, type LPZ or equivalent. Approximate parameters of furrows:</p>	the Contractor; the Employer (after the end of the Defects Notification Period).

No	Issue	Location	Compensation action	Responsible party
			<p>- width 60-70 cm</p> <p>- depth 6 to 15 cm</p> <p>- intervals counting from the centre of the furrow: 1.4-1.6 m (average 1.5 m).</p> <p>b) fencing off the crop with netting</p> <p>Net height min. 200 cm, number of horizontal wires minimum 22, distance of vertical wires max. 15 cm, mesh size up to 0.8 m height maximum 5x15 cm. The mesh must be galvanised, minimum zinc content 200 g/m², thickness of extreme horizontal wires at the top and bottom minimum 2.5 mm, the rest minimum 2.0 mm (wire thickness tolerance +/-0.12 mm).</p> <p>Oak wood posts, debarked, minimum length 2.6 m, diameter min. 12 cm without bark, meeting the requirements for S2a wood. The posts shall be buried at a depth of min. 0.5 m, at intervals of up to 4 m.</p> <p>A horizontal pole should be nailed at the top of the fence. Cut out the mesh at the ground for 15-20 cm and fix the mesh to the ground by nailing poles or nailing pegs between the posts.</p> <p>Construction of at least 1 gate for each fence.</p> <p>c) Planting</p> <p>Planting in locations and trusses determined by land manager</p> <p>d) Implementation of corrections</p> <p>Improvements will consist of replenishing the established crop, where the seedlings have fallen out, with oak seedlings.</p> <p>e) Maintenance of plantings</p> <p>Maintenance consists of tending the soil around the seedlings, weeding, mowing at least twice a year</p>	

No	Issue	Location	Compensation action	Responsible party
			<p>Detailed conditions for the execution of the planting as well as its maintenance shall be specified in the <i>Quality Assurance Plan</i> prepared by the Contractor and requiring the approval of the Engineer.</p> <p>After the Defect Notification Period, the obligation to carry out the works listed in b). d). e) shall pass to the Employer.</p>	
A3.	General principles of conservation of living resources	Cadastral plots No.: 2 (Osobowice cadastral district, commune Wrocław)	<p>Species composition and parameters of the planting material for the riparian forest habitat 91F0</p> <p>When planting trees and shrubs as part of habitat compensation 91E0, the following guidelines related to species composition and parameters of planting material should be applied:</p> <ul style="list-style-type: none"> pedunculate oak – single and/or clump mix, 1, 2 or 3 year old nursery cuttings, number of cuttings 8 thousand pcs/ha + 10% 	Contractor

No	Issue	Location	Compensation action	Responsible party
A4.	General principles of conservation of living resources	Cadastral plot no.: 180/24 (Siedlec cadastral district, commune Długołęka)	<p>Conditions of nature compensation for tree felling</p> <p>For the felling of approximately 1850 trees, including 50 trees of monumental or near monumental size, compensatory planting must be carried out according to the following principles:</p> <ul style="list-style-type: none"> a) plant 5550 pieces of native trees: oak, linden, sycamore, maple, field maple, field elm, white willow, black poplar, white poplar; b) planting should take the form of rows, avenues or groups of trees; c) planting should be done in the months of September - October under the supervision of an expert phytosociologist from the Contractor's naturalist team; d) prior to the commencement of the conditions specified in this item of the EMP, a concept for compensatory planting must be prepared and agreed with a representative of Długołęka Commune; e) a Quality Assurance Plan for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP; f) once the planting has been completed, the Contractor shall protect the planting from being gnawed by animals after agreeing with the phytosociologist expert of the Contractor's nature team on the best way to do so; g) during the period of execution of the works and the Defect Notification Period, the Contractor shall carry out maintenance work on the plantings and make appropriate corrections or additions if the plantings have fallen out; h) detailed solutions for the execution and maintenance of plantings should be implemented after consultation with the phytosociologist expert of the Contractor's team of nature experts. <p>Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.</p>	Contractor

No	Issue	Location	Compensation action	Responsible party
A5.	General principles of conservation of living resources	Cadastral plot no.: 180/24 (Siedlec cadastral district, commune Długołęka)	<p><i>Species composition and parameters of planting material used to compensate for tree felling</i></p> <p>When planting trees to compensate for tree felling, the following guidelines shall be applied in relation to the species composition and parameters of the planting material:</p> <ul style="list-style-type: none"> • pedunculate oak - 2-year old nursery seedlings, number of seedlings 617; • small-leaved lime tree - 2-year old nursery cuttings, number of seedlings 617; • sycamore - 2-year old nursery cuttings, number of seedlings 617; • common maple - 2-year old nursery cuttings, number of seedlings 617; • field maple - 2-year old nursery cuttings, number of seedlings 616; • field elm 2-year old nursery cuttings, number of seedlings 616; • white willow - 4-year-old or older nursery cuttings, number of cuttings 616; • black poplar - 4-year-old or older nursery cuttings, number of cuttings 617; • white poplar - 4-year-old or older nursery cuttings, number of cuttings 617 	Contractor

No	Issue	Location	Compensation action	Responsible party
A6.	General principles of conservation of living resources	Cadastral plots No.: 232/2 (Borowa cadastral district, commune Długołęka (section 48d); 838 cadastral district Grochowa, commune of Zawonia (section 194k); 611 cadastral district Ligota Mała, commune of Oleśnica (section 179c); 93 cadastral district Cieletniki, commune of Zawonia (section 268ix).	<p>Conditions of nature compensation for bush felling</p> <p>Compensatory planting of native shrub species in an area of 2.85 hectares is to be carried out for the removal of shrubs in an area of approximately 0.95 hectares, in accordance with the following principles:</p> <ul style="list-style-type: none"> a) the following shrub species shall be used for planting: common spindle, guelder-rose, midland hawthorn, blackthorn, common dogwood, common buckthorn, red elderberry, wild rose, common juniper, barberry, honeysuckle; b) planting in rows or groups of shrubs, e.g. in the ecotone of compact forest complexes; c) planting must be done in spring under the supervision of a phytosociologist expert from the Contractor's nature team; d) when implementing the planting, a planting truss of 3x3 m should be adopted for the shrubs; e) method of soil preparation – on part of the plot (separation of 48d, 194k, 268ix): preparation of the soil in the form of deep ploughing over the whole surface and alignment of the plot with growing treatments. On the plot of section 179c: soil preparation in the form of 1/1 m squares, devoid of vegetation, with loosened topsoil (digging to a depth of approx. 20 cm). Distance between centres of posts (truss) as in d. Plots should be prepared for planting in the autumn of the year prior to planting; f) planting shall be carried out in such a way as not to damage the roots of the cuttings; g) a Quality Assurance Plan for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP. <p>Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.</p>	Contractor

No	Issue	Location	Compensation action	Responsible party
A7.	General principles of conservation of living resources	Cadastral plots No.: 232/2 (Borowa cadastral district, commune Długołęka (section 48d); 838 cadastral district Grochowa, commune of Zawonia (section 194k); 611 cadastral district Ligota Mała, commune of Oleśnica (section 179c); 93 cadastral district Cieleńniki, commune of Zawonia (section 268ix).	<p>Species composition and parameters of planting material used to compensate for bush felling</p> <p>The following guidelines relating to species composition and parameters of planting material shall be applied when planting shrubs as part of natural compensation for bush felling:</p> <ul style="list-style-type: none"> • European spindle - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 289 (section 179c); • guelder-rose - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 278 (section 179c); • midland hawthorn - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of cuttings 300 (separation 194k); • blackthorn - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 155 (separation 194k); • common dogwood - seedling with minimum 3 skeleton shoots formed approx. 10 cm above the root ball, number of seedlings 278 (section 179c); • European buckthorn - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 278 (section 179c); • elderberry - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 278 (section 48d); • wild rose - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 333 (division 268ix); • common juniper - seedling with minimum 3 skeleton shoots formed approx. 10 cm above the root ball, number of seedlings 389 (separation 194k); • common barberry - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 278 (section 48d); • fly honeysuckle - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 311 (separation 194k); <p>Note: cuttings at least 3 years old with a covered root system, healthy, vigorous and properly formed.</p>	Contractor

No	Issue	Location	Compensation action	Responsible party
A8.	General principles of conservation of living resources	Cadastral plots No.: 232/2 (Borowa cadastral district, commune Długołęka); 838 Grochowa cadastral district, commune of Zawonia, 611 Ligota Mała cadastral district, commune of Oleśnica); 93 Cielętniki cadastral district, commune of Zawonia)	<p>How to protect shrub seedlings from wildlife</p> <p>Galvanised forestry netting fence: height 200 cm, mesh width 15 cm, number of longitudinal wires 25.</p> <p>Reinforced concrete posts 270 cm high with a minimum cross-section of 8x8 cm.</p> <p>The fence is equipped with a 4 m wide entrance gate and a gate.</p> <p>The net should be properly stretched, the distance between adjacent fence posts should be approx. 3 m (± 0.20 m). A distance of approx. 3 m must be kept between the shrub seedlings and the fence mesh.</p>	Contractor
A9.	General principles of conservation of living resources	Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław); 180/24 (cadastral district Siedlec, commune Długołęka); 232/2 (cadastral district Borowa, commune Długołęka); 838 cadastral district Grochowa, commune Zawonia; 611 cadastral district Ligota Mała, commune Olesnica; 93rd cadastral district Cielętniki, commune Zawonia.	<p>Guidelines for the implementation of tree and shrub plantings</p> <p>The planting of trees and shrubs referred to in items A1-A8 of the App. no. 3 to the EMP should be carried out in accordance with the following principles:</p> <p>a) the tree and shrub seedlings supplied shall comply with current standards relating to the quality of nursery stock and be labelled with the Latin and Polish species name, form and stem height, and the number of the relevant standard under which the seedlings have been produced;</p> <p>b) the seedlings of trees and shrubs shall be properly formed in a species-specific manner and shall have the following characteristics:</p> <ul style="list-style-type: none"> • the plumule of the lead shoot should be clearly formed; • the growth of the last year should clearly and simply extend the lead shoot; • the root system should be focused and properly developed, on skeletal roots; • there should be numerous fine roots; • in plants planted with a root ball, the ball should be properly formed; • crown shoots in trees and shrubs should not be trimmed; • the side shoots of the tree crown should be evenly distributed; • the lead shoot should be straight; 	Contractor

No	Issue	Location	Compensation action	Responsible party
			<ul style="list-style-type: none"> • scars on the lead shoot should be well overgrown, 4 not completely overgrown are allowed. <p>c) unacceptable defects in tree and shrub seedlings:</p> <ul style="list-style-type: none"> • severe mechanical damage to plants; • traces of pest feeding; • the signs of disease; • withering and wrinkling of the bark on the roots and ground parts; • necrosis and bark cracks; • damage to plumule of the lead shoot; • damage or dryness of the root ball. <p>d) the Contractor shall be required to submit a certificate from the nursery supplying the plants, confirming that the plant production process complies with the requirements of the Employer (nursery). The Contractor is responsible for meeting the quantity and quality requirements of the plant material. The Contractor is also obliged to present samples of the nursery stock to the Employer and agree on the selection of materials each time with the Investor's Supervision Inspector;</p> <p>e) during transport, tree and shrub seedlings must be protected from damage (root system, or root ball and crown). Plants with a root ball must have protection (packaging) or be in containers. During transport, the plants must be protected from drying out and freezing. Trees and shrubs, once delivered to the site, should be planted immediately. If this is not possible, they should be staked in a shady place sheltered from the wind and watered in case of drought.</p>	

No	Issue	Location	Compensation action	Responsible party
A10.	General principles of conservation of living resources	Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław); 180/24 (cadastral district Siedlec, commune Długołęka); 232/2 (cadastral district Borowa, commune Długołęka); 838 cadastral district Grochowa, commune Zawonia; 611 cadastral district Ligota Mała, commune Olesnica; 93rd cadastral district Cieleńniki, commune Zawonia.	<p>Execution of complementary plantings of trees and shrubs in natural compensation areas</p> <p>In the event that the tree and shrub planting referred to in items nos. A1-A8 of the App. 3 to the EMP, lower than 85% (determined in accordance with the content of the condition from item B14 of the monitoring part of the Appendix no. 3 to the EMP) it is necessary to perform appropriate supplementary planting.</p> <p>A <i>Quality Assurance Plan</i> for the above work shall be submitted to the Engineer for approval prior to commencement of the conditions specified in this item of the EMP.</p>	Contractor
A11.	General principles of conservation of living resources	Plot no. 330/2 (cadastral district Dobrzykowice, commune of Czernica).	<p>Conditions for amphibian habitat compensation</p> <p>For the destruction of one pond and the partial destruction of two reservoirs constituting amphibian breeding sites, amphibian breeding habitats shall be restored in accordance with the following conditions:</p> <ul style="list-style-type: none"> a) on the Widawa embankment within the boundaries of plot no. 330 (Dobrzykowice cadastral district, commune of Czernica), construct 6 water reservoirs in accordance with the design attached to the Bidding Documentation, shaped in a manner creating breeding habitats for amphibian species; b) the total water surface area of the reservoirs shall not be less than 0,6 ha; c) the activities should be agreed in advance with the herpetologist expert of the Contractor's team of naturalists and implemented with his/her participation; d) a <i>Quality Assurance Plan</i> for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP. . 	Contractor

No	Issue	Location	Compensation action	Responsible party
A12.	General principles of conservation of living resources	The Młynówka Kiełczowska channel within the area of Task implementation.	<p>Conditions for natural compensation of breeding sites of the grey wagtail</p> <p>For the destruction of the habitat of the grey wagtail <i>Motacilla cinerea</i> - within the channel of the Młynówka Kiełczowska the following compensatory measure should be carried out:</p> <ul style="list-style-type: none"> a) install two nest boxes suitable for this species. b) the type of boxes and the location of the posting sites are to be agreed in advance with the Contractor's expert ornithologist and implemented with his participation. c) draw up a map with the locations of the boxes and a list of their location with GPS coordinates. d) a <i>Quality Assurance Plan</i> for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP. 	Contractor
A13.	General principles of conservation of living resources	Task area and adjacent forest areas	<p>Conditions for natural compensation of bat shelters</p> <p>The following compensatory action must be carried out for the destruction of bat shelters:</p> <ul style="list-style-type: none"> a) install two bat boxes within the road bridges over the River Widawa (the bridge over Wilczycka Street, the bridge in the course of Rieczna Street); b) install 40 bat boxes in tree stands located within or adjacent to the Task area; c) the type of boxes and locations of the boxes should be agreed with the expert chiropterologist of the Contractor's team of nature experts; d) draw up a map indicating the locations of the boxes and a list of their location with GPS coordinates; e) the works including the placing of the boxes should be performed under the supervision of an expert chiropterologist from the Contractor's naturalist team. f) a <i>Quality Assurance Plan</i> for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP. <p>Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.</p>	

B) REQUIREMENTS RELATING TO THE MONITORING OF THE EXECUTION OF THE NATURE COMPENSATION

No	Issue	Subject of monitoring	Place of monitoring	Method of monitoring	Period and frequency of monitoring	Responsible party
B1.	General principles of conservation of living resources	<p>Reproduction of patches of riparian forest habitat 91F0</p> <p>On an area of 7.2 ha, the habitat patches of the riparian oak-elm-ash forest (<i>Ficario-Ulmetum</i>) - code 91F0 shall be restored by planting the appropriate (typical) tree and shrub species for this habitat'</p> <p>The following principles must be observed when implementing planting:</p> <p>a) the basic principles of forest farming must be respected throughout the planting cycle;</p> <p>b) reproductive material shall be used for planting which is consistent with the seed region (originating from the region where the planting is to be carried out) and nature-forestry;</p> <p>c) planting should be done in the months of September to October;</p> <p>d) the planted crops will need to be cared for properly, which in the period of the Task will be carried out under the supervision of an expert phytosociologist from the Contractor's team of nature experts;</p> <p>e) number of seedlings 8 thousand/ha, due to the weather and extreme events in recent years it is recommended to increase the planned number of seedlings by 10%;</p> <p>f) a <i>Quality Assurance Plan</i> for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP.</p>	Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław).	Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Contractor's team
				Control of the participation of required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Engineer's Team

		Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.				
B2	General principles of conservation of living resources	<p>List of works necessary for the compensation</p> <p>a) soil preparation</p> <p>The work includes making furrows using machinery and equipment such as a forestry cutter or LPZ-type double-furrow plough or equivalent. Approximate parameters of furrows:</p> <ul style="list-style-type: none"> - width 60-70 cm - depth 6 to 15 cm <p>- intervals counting from the centre of the furrow: 1.4-1.6 m (average 1.5 m).</p> <p>b) fencing off crops with netting</p> <p>Net height min. 200 cm, number of horizontal wires minimum 22, distance of vertical wires max. 15 cm, mesh size up to 0.8 m height maximum 5x15 cm. The mesh must be galvanised, minimum zinc content 200 g/m², thickness of extreme horizontal wires at the top and bottom minimum 2.5 mm, the rest minimum 2.0 mm (wire thickness tolerance +/-0.12 mm).</p> <p>Oak wood posts, debarked, minimum length 2.6 m, diameter min. 12 cm without bark, meeting the requirements for S2a wood. The posts shall be buried at a depth of min. 0.5 m, at intervals of up to 4 m.</p> <p>A horizontal pole should be nailed at the top of the fence. Cut out the mesh at the ground for 15-20</p>	Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław).	Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Contractor's team
				Control of the participation of required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Engineer's team; Employer (after the Defect Notification Period)

		<p>cm and fix the mesh to the ground by nailing poles or nailing pegs between the posts.</p> <p>Construction of at least 1 gate for each fence.</p> <p>c) Planting</p> <p>Planting in locations and trusses determined by the land manager</p> <p>d) Implementation of corrections</p> <p>Improvements will consist of replenishing the established crop, where the seedlings have fallen out, with oak seedlings.</p> <p>e) Maintenance of plantings</p> <p>Maintenance consists of tending the soil around the seedlings, weeding mowing at least twice a year</p> <p>Detailed conditions for the execution of the planting as well as its maintenance shall be specified in the <i>Quality Assurance Plan</i> prepared by the Contractor and requiring the approval of the Engineer.</p> <p>After the Defect Notification Period, the obligation to carry out the works listed in b). d). e) shall pass to the Employer.</p>				
B3	General principles of conservation of living resources	<p><i>Species composition and parameters of the planting material for the riparian forest habitat 91F0</i></p> <p>When planting trees and shrubs as part of habitat compensation 91E0, the following guidelines related to species composition and parameters of planting material should be applied:</p>	<p>Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław).</p>	<p>Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to</p>	<p>During the Task implementation period, on an ongoing basis, not less frequently than once a week.</p>	<p>Contractor's team</p>

		<ul style="list-style-type: none"> pedunculate oak – single and/or clump mix, 1, 2 or 3 year old nursery cuttings, number of cuttings 8 thousand pcs/ha + 10% 		the Engineer in the scope of compensatory plantings.		
				Control of the participation of required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Engineer's Team
B4	General principles of conservation of living resources	<p>Conditions of nature compensation for tree felling</p> <p>For the felling of approximately 1850 trees, including 50 trees of monumental or near monumental size, compensatory planting must be carried out according to the following principles:</p> <ol style="list-style-type: none"> plant 5550 pieces of native trees: oak, linden, sycamore, maple, field maple, field elm, white willow, black poplar, white poplar; planting should take the form of rows, avenues or groups of trees; planting should be done in the months of September - October under the supervision of an expert phytosociologist from the Contractor's naturalist team; prior to the commencement of the conditions specified in this item of the EMP, a concept for compensatory planting must be prepared and agreed with a representative of Długołęka Commune; a Quality Assurance Plan for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP; 	Cadastral plot no.: 180/24 (Siedlec cadastral district, commune Długołęka)	Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Ongoing monitoring of the implementation of the conditions of the EMP. Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Contractor's team
				Checking the presence of the required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Engineer's Team

		<p>f) once the planting has been completed, the Contractor shall protect the planting from being gnawed by animals after agreeing with the phytosociologist expert of the Contractor's nature team on the best way to do so;</p> <p>g) during the period of execution of the works and the Defect Notification Period, the Contractor shall carry out maintenance work on the plantings and make appropriate corrections or additions if the plantings have fallen out;</p> <p>h) detailed solutions for the execution and maintenance of plantings should be implemented after consultation with the phytosociologist expert of the Contractor's team of nature experts.</p> <p>Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.</p>				
B5	General principles of conservation of living resources	<p><i>Species composition and parameters of planting material used to compensate for tree felling</i></p> <p>When planting trees to compensate for tree felling, the following guidelines shall be applied in relation to the species composition and parameters of the planting material:</p> <ul style="list-style-type: none"> • pedunculate oak - 2-year old nursery seedlings, number of seedlings 617; • small-leaved lime tree - 2-year old nursery cuttings, number of seedlings 617; • sycamore - 2-year old nursery cuttings, number of seedlings 617; • common maple - 2-year old nursery cuttings, number of seedlings 617; 	Cadastral plots no.: 180/24 (Siedlec cadastral district, commune Długoleka)	Visual monitoring, photo documentation Ongoing monitoring of the implementation of the conditions of the EMP. Verification of documentation submitted by the Contractor to the Engineer.	During the Task implementation period, on an ongoing basis, not less frequently than once a week	Contractor's team
				Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to	During the Task implementation period, on an ongoing basis, not less frequently than once a week	Engineer's Team

		<ul style="list-style-type: none"> field maple - 2-year old nursery cuttings, number of seedlings 616; field elm 2-year old nursery cuttings, number of seedlings 616; white willow - 4-year-old or older nursery cuttings, number of cuttings 616; black poplar - 4-year-old or older nursery cuttings, number of cuttings 617; white poplar - 4-year-old or older nursery cuttings, number of cuttings 617 		the Engineer in the scope of compensatory plantings.		
B6	General principles of conservation of living resources	<p>Conditions of nature compensation for bush felling</p> <p>Compensatory planting of native shrub species in an area of 2.85 hectares is to be carried out for the removal of shrubs in an area of approximately 0.95 hectares, in accordance with the following principles:</p> <p>a) the following shrub species shall be used for planting: common spindle, guelder-rose, midland hawthorn, blackthorn, common dogwood, common buckthorn, red elderberry, wild rose, common juniper, barberry, honeysuckle;</p> <p>b) planting in rows or groups of shrubs, e.g. in the ecotone of compact forest complexes;</p> <p>c) planting must be done in spring under the supervision of a phytosociologist expert from the Contractor's nature team;</p> <p>d) when implementing the planting, a planting truss of 3x3 m should be adopted for the shrubs;</p> <p>e) method of soil preparation – on part of the plot (separation of 48d, 194k, 268ix): preparation of the soil in the form of deep plowing over the whole surface and alignment of the plot with growing treatments. On the plot of section 179c: soil preparation in the form of 1/1 m squares, devoid of vegetation, with loosened topsoil</p>	<p>Cadastral plots No.: 232/2 (Borowa cadastral district, commune Długołęka (section 48d); 838 cadastral district Grochowa, commune of Zawonia (section 194k); 611 cadastral district Ligota Mała, commune of Oleśnica (section 179c); 93 cadastral district Cielętniki, commune of Zawonia (section 268ix).</p>	Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Ongoing monitoring of the implementation of the conditions of the EMP.	During the Task implementation period, on an ongoing basis, not less frequently than once a week	Contractor's team
				Verification of documentation submitted by the Contractor to the Engineer.	Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.	During the Task implementation period, on an ongoing basis, not less frequently than once a week

		<p>(digging to a depth of about 20 cm). Distance between centres of posts (truss) as in d. Plots should be prepared for planting in the autumn of the year prior to planting;</p> <p>f) planting shall be carried out in such a way as not to damage the roots of the cuttings;</p> <p>g) a Quality Assurance Plan for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP.</p> <p>Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.</p>				
B7	General principles of conservation of living resources	<p>Species composition and parameters of planting material used to compensate for bush felling</p> <p>The following guidelines relating to species composition and parameters of planting material shall be applied when planting shrubs as part of natural compensation for bush felling:</p> <ul style="list-style-type: none"> European spindle - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 289 (section 179c); guelder-rose - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 278 (section 179c); midland hawthorn - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of cuttings 300 (separation 194k); blackthorn - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 155 (separation 194k); 	<p>Cadastral plots No.: 232/2 (Borowa cadastral district, commune Długołęka (section 48d); 838 cadastral district Grochowa, commune of Zawonia (section 194k); 611 cadastral district Ligota Mała, commune of Oleśnica (section 179c); 93 cadastral district Cielętniki, commune of Zawonia (section 268ix).</p>	<p>Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Ongoing monitoring of the implementation of the conditions of the EMP.</p> <p>Verification of documentation submitted by the Contractor to the Engineer.</p>	<p>During the Task implementation period, on an ongoing basis, not less frequently than once a week</p>	<p>Contractor's team</p>
				<p>Checking the presence of the required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to</p>	<p>During the Task implementation period, on an ongoing basis, not less frequently than once a week</p>	<p>Engineer's Team</p>

		<ul style="list-style-type: none"> • common dogwood - seedling with at least 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 278 (section 179c); • European buckthorn - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 278 (section 179c); • elderberry - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 278 (section 48d); • wild rose - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 333 (division 268ix); • common juniper - seedling with minimum 3 skeleton shoots formed approx. 10 cm above the root ball, number of seedlings 389 (separation 194k); • common barberry - seedling with a minimum of 3 skeletal shoots formed about 10 cm above the root ball, number of seedlings 278 (section 48d); • fly honeysuckle - seedling with a minimum of 3 skeletal shoots formed approx. 10 cm above the root ball, number of seedlings 311 (separation 194k); <p>Note: seedlings at least 3 years old with a covered root system, healthy, vigorous and properly formed.</p>		the Engineer in the scope of compensatory plantings.		
B8	General principles of conservation of	<p><i>How to protect shrub seedlings from wildlife</i></p> <p>Galvanised forestry netting fence: height 200 cm, mesh width 15 cm, number of longitudinal wires 25.</p>	Cadastral plots No.: 232/2 (Borowa cadastral district, commune Długołęka); 838 Grochowa	Control of the correct implementation of activities by the required experts. Visual monitoring, photo documentation Ongoing monitoring of the	During the Task implementation period, on an ongoing basis, not less frequently than once a month	Contractor's team

	living resources	<p>Reinforced concrete posts 270 cm high with a minimum cross-section of 8x8 cm.</p> <p>The fence is equipped with a 4 m wide entrance gate and a gate.</p> <p>The net should be properly stretched, the distance between adjacent fence posts should be approx. 3 m (± 0.20 m). A distance of approx. 3 m must be kept between the shrub seedlings and the fence mesh.</p>	<p>cadastral district, commune of Zawonia, 611 Ligota Mała cadastral district, commune of Oleśnica); 93 Cielętniki cadastral district, commune of Zawonia)</p>	<p>implementation of the conditions of the EMP.</p> <p>Verification of documentation submitted by the Contractor to the Engineer.</p> <p>Checking the presence of the required experts. Visual monitoring, photo documentation Verification of documentation handed over by the Contractor to the Engineer in the scope of compensatory plantings.</p>		
B9	General principles of conservation of living resources	<p>Guidelines for the implementation of tree and shrub plantings</p> <p>The planting of trees and shrubs referred to in items A1-A8 of the App. no. 3 to the EMP should be carried out in accordance with the following principles:</p> <p>f) the tree and shrub seedlings supplied shall comply with current standards relating to the quality of nursery stock and be labelled with the Latin and Polish species name, form and stem height, and the number of the relevant standard under which the seedlings have been produced;</p> <p>g) the seedlings of trees and shrubs shall be properly formed in a species-specific manner and shall have the following characteristics:</p> <ul style="list-style-type: none"> the plumule of the lead shoot should be clearly formed; 	<p>Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław); 180/24 (cadastral district Siedlec, commune Długołęka); 232/2 (cadastral district Borowa, commune Długołęka; 838 cadastral district Grochowa, commune Zawonia; 611 cadastral district</p>	<p>Visual verification of seedlings and documentation submitted by the Contractor to the Engineer.</p> <p>Verification of documentation submitted by the Contractor to the Engineer.</p>	<p>During the Task implementation period, on an ongoing basis, not less frequently than once a week</p> <p>During the Task implementation period, on an ongoing basis, not less frequently than once a week</p>	<p>Contractor's team</p> <p>Engineer's Team</p>

	<ul style="list-style-type: none"> • the growth of the last year should clearly and simply extend the lead shoot; • the root system should be focused and properly developed, on skeletal roots; • there should be numerous fine roots; • in plants planted with a root ball, the ball should be properly formed; • crown shoots in trees and shrubs should not be trimmed; • the side shoots of the tree crown should be evenly distributed; • the lead shoot should be straight; • scars on the lead shoot should be well overgrown, 4 not completely overgrown are allowed;. <p>h) unacceptable defects in tree and shrub seedlings:</p> <ul style="list-style-type: none"> • severe mechanical damage to plants; • traces of pest feeding; • the signs of disease; • withering and wrinkling of the bark on the roots and ground parts; • necrosis and bark cracks; • damage to plumule of the lead shoot; • damage or dryness of the root ball. <p>i) the Contractor shall be required to submit a certificate from the nursery supplying the plants, confirming that the plant production process complies with the requirements of the Employer (nursery). The Contractor is responsible for meeting the quantity and quality requirements of the plant material. The Contractor shall also be obliged to present samples of the nursery stock to the Employer and agree each time on the choice of materials with the Investor's Supervisor;</p> <p>j) during transport, tree and shrub seedlings must be protected from damage (root system, or root ball and crown). Plants with a root ball must have</p>	<p>Ligota Mała, commune Olesnica; 93rd cadastral district Cieletniki, commune Zawonia.</p>			
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		protection (packaging) or be in containers. During transport, the plants must be protected from drying out and freezing. Trees and shrubs, once delivered to the site, should be planted immediately. If this is not possible, they should be staked in a shady place sheltered from the wind and watered in case of drought				
B10	General principles of conservation of living resources	<p>Execution of complementary plantings of trees and shrubs in natural compensation areas</p> <p>In the event that the tree and shrub planting referred to in items nos. A1-A8 of the App. 3 to the EMP, lower than 85% (determined in accordance with the content of the condition from item B14 of the monitoring part of the Appendix no. 3 to the EMP) it is necessary to perform appropriate supplementary planting.</p> <p>A <i>Quality Assurance Plan</i> for the above work shall be submitted to the Engineer for approval prior to commencement of the conditions specified in this item of the EMP.</p>	<p>Cadastral plots No.: 2 (cadastral district Osobowice, commune Wrocław); 180/24 (cadastral district Siedlec, commune Długołęka); 232/2 (cadastral district Borowa, commune Długołęka; 838 cadastral district Grochowa, commune Zawonia; 611 cadastral district Ligota Mała, commune Olesnica; 93rd cadastral district Cielętniki, commune Zawonia.</p>	Verification of documentation submitted to the Engineer regarding planting material and implementation of planting	During the period of implementation of the Task, on an ongoing basis, at least once a week, during the periods of activity	Contractor's team
				Verification of documentation submitted by the Contractor to the Engineer regarding planting material and planting implementation. Quality control of nursery stock.	During the Task implementation period, on an ongoing basis, not less frequently than once a week	Engineer's Team

B11	General principles of conservation of living resources	<p>Conditions for amphibian habitat compensation</p> <p>For the destruction of one pond and the partial destruction of two reservoirs constituting amphibian breeding sites, amphibian breeding habitats shall be restored in accordance with the following conditions:</p> <p>e) on the Widawa embankment within the boundaries of plot no. 330 (Dobrzykowice cadastral district, commune of Czernica), construct 6 water reservoirs in accordance with the design attached to the Bidding Documentation, shaped in a manner creating breeding habitats for amphibian species;</p> <p>f) the total water surface area of the reservoirs shall not be less than 0,6 ha;</p> <p>g) the activities should be agreed in advance with the herpetologist expert of the Contractor's team of naturalists and implemented with his/her participation;</p> <p>h) a Quality Assurance Plan for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP.</p>	Plot no. 330/2 (cadastral district Dobrzykowice, commune of Czernica).	Verification of documentation on natural compensation for amphibian habitats and correctness of implementation of measures by the required experts. Visual monitoring, photo documentation	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Contractor's team
				Visual monitoring, photo documentation Verification of amphibian habitat compensation documentation submitted by the Contractor to the Engineer. Control of the approvals of the required experts. Quality control of nursery stock.	During the Task implementation period, on an ongoing basis, not less frequently than once a week	Engineer's Team
B12	General principles of conservation of living resources	<p>Conditions for natural compensation of breeding sites of the grey wagtail</p> <p>For the destruction of the habitat of the grey wagtail <i>Motacilla cinerea</i> - within the channel of the Młynówka Kielczowska the following compensatory measure should be carried out:</p> <p>i) install two nest boxes suitable for this species.</p> <p>j) the type of boxes and the location of the posting sites are to be agreed in advance with the Contractor's expert ornithologist and implemented with his participation.</p> <p>k) draw up a map with the locations of the boxes and a list of their location with GPS coordinates.</p> <p>l) a <i>Quality Assurance Plan</i> for the above work shall be submitted for the Engineer's approval prior to</p>	The Młynówka Kielczowska channel within the area of Task implementation.	Verification of documentation concerning natural compensation of breeding sites of the wagtail.	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Contractor's team
				Visual monitoring, photo documentation	Visual monitoring, photo documentation Verification of documentation submitted by the Contractor to the Engineer	During the Task implementation period, on an ongoing basis, not less frequently than once a week

		commencement of the conditions specified in this item of the EMP.		with regard to natural compensation of breeding sites of the wagtail. Checking the presence and arrangements of the required expert.		
B13.	General principles of conservation of living resources	<p>Conditions for natural compensation of bat shelters</p> <p>The following compensatory action must be carried out for the destruction of bat shelters:</p> <p>g) install two bat boxes within the road bridges over the River Widawa (the bridge over Wilczycka Street, the bridge in the course of Rieczna Street);</p> <p>h) install 40 bat boxes in tree stands located within or adjacent to the Task area;</p> <p>i) the type of boxes and locations of the boxes should be agreed with the expert chiropterologist of the Contractor's team of nature experts;</p> <p>j) draw up a map indicating the locations of the boxes and a list of their location with GPS coordinates;</p> <p>k) the works including the placing of the boxes should be performed under the supervision of an expert chiropterologist from the Contractor's naturalist team.</p> <p>l) a <i>Quality Assurance Plan</i> for the above work shall be submitted for the Engineer's approval prior to commencement of the conditions specified in this item of the EMP.</p> <p>Planting operations referred to under this item of the EMP shall commence as soon as possible to permit their implementation.</p>	Task area and adjacent forest areas	<p>Verification of the documentation on natural compensation of bat shelters and checking the correctness of the work by the required experts.</p> <p>Visual monitoring, photo documentation</p>	During the Task implementation period, on an ongoing basis, not less frequently than once a week.	Contractor's team
				<p>Visual monitoring, photo documentation Verification of documentation submitted by the Contractor to the Engineer regarding natural compensation of bat roosts.. Checking the presence and arrangements of the required expert.</p>	During the Task implementation period, on an ongoing basis, not less frequently than once a week	Engineer's Team
B14.	General principles of conservation	Assessing the success of compensatory plantings	Cadastral plots No.: 2 (cadastral district Osobowice,	Monitoring shall consist of assessing the condition of the planting, determining the need for and scope of	Once per growing season 9 months after implementation. Planting.	Contractor's team

Annex No. 1 to the Environmental Management Plan for the Contract 1B.7 WFS Widawa- the rebuilding of the flood management system of the municipality of Czernica, Długołęka, Wisznia Mała and Wrocław.

	<p>on of living resources</p>	<p>In the next growing season after the planting described in items A1-A8 of Appendix 3 to the EMP, an assessment of their success shall be carried out</p>	<p>commune Wrocław); 180/24 (cadastral district Siedlec, commune Długołęka); 232/2 (cadastral district Borowa, commune Długołęka; 838 cadastral district Grochowa, commune Zawonia; 611 cadastral district Ligota Mała, commune Olesnica; 93rd cadastral district Cielętniki, commune Zawonia.</p>	<p>any corrective action, and implementing such action (if necessary). Monitoring shall be carried out on all planted plots. Monitoring should be performed by an expert phytosociologist.</p>	<p>If replanting is necessary, on an ongoing basis (at least once a week) with monthly reporting.</p>	
				<p>Checking the presence of the required experts. Visual monitoring, photo documentation Ongoing monitoring of the implementation of the condition of the EMP. Verification of documentation submitted by the Contractor to the Engineer.</p>	<p>Once during the growing season 9 months after planting. If any supplementary planting is required, on an ongoing basis with reporting once a month.</p>	<p>Engineer's Team</p>