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Warsaw, 9 February 2011

**REGIONAL DIRECTOR FOR
ENVIRONMENTAL
PROTECTION IN WARSAW**

WOOS-II.4200.9.2011.DŚ

DECISION ON ENVIRONMENTAL CONSIDERATIONS

Pursuant to Article 71 section 2 paragraph 1, Article 75 section 1 paragraph 1(a) 1st tiret and Article 82 and Article 85 section 1 of the Act of 3 October 2008 on Providing Access to Information concerning the Environment and Environmental Protection, Participation of the Public in Environmental Protection and on Environmental Impact Assessments (Journal of Laws No. 199, item 1227, as amended, hereinafter referred to as the EIA), as well as § 2 section 1 paragraph 29 of the Regulation of the Council of Ministers of 9 November 2004 on determining the kinds of project that may have a considerable impact on the environment and on the detailed conditions related to qualifying the project for drawing up an environmental impact report (Journal of Laws No. 257, item 2573, as amended), in relation with § 4 of the Regulation of the Council of Ministers of 9 November 2010 on projects that may have considerable environmental impact (Journal of Laws No. 213, item 1397), and Article 104 and Article 108 § 1 of the Act of 14 June 1960 – the Code of Administrative Procedure (Journal of Laws of 2000, No. 98, item 1071, as amended, hereinafter referred to as the CAP), having considered the application of 29 July 2010 submitted by Mr. Stanisław Dmuchowski – the proxy of the General Director for National Roads and Motorways – for issuing a decision on environmental considerations for implementation of the project and conducting the proceedings on environmental impact assessment,

I hereby determine

environmental considerations for the project involving construction of the S7 national road of the parameters of an expressway within the new route at the Młodocin Mniejszy – Krogulcza Sucha – Orońsko section, according to Variant I and at the same time:

I. I define:

1. The type and place for the implementation of the investment:

The planned undertaking involves construction of the S7 national road of the parameters of an expressway within the new route at the Młodocin Mniejszy – Krogulcza Sucha – Orońsko section. It will be implemented in areas of the Radom and Szydłowiec Poviats and the Kowal and Orońsko Communes. The designed road is approx. 4.6 km long and runs through areas of Młodocin Mniejszy, Krogulcza Sucha, Orońsko.

The S7 expressway will constitute an alternative for the existing national road no. 7, which currently plays a key role for national and international transport. Construction of the expressway will ensure convenient road connections, increase safety of road traffic with the simultaneous application of environmental protection principles by making appropriate environment protecting equipment (acoustic screens, tight drainage system, passages for animals).

The existing national road no. 7 runs through areas with residential development located in the direct vicinity of the road, which is why the task of the designed route is to transfer part of the traffic, especially heavy traffic, outside areas of residential development. Implementation of the investment will have a positive impact on reduction of a threat to the health and life of people residing in the vicinity of the existing national road no. 7 by improving safety of road traffic and living conditions of the residents.

The environmental impact report for the project includes analysis of 2 variants of the investment implementation. The expected environmental impact in the event of abandoning the project has also been analysed. In all analysed variants construction of the road begins and ends at the same place. The variants vary in terms of the following issues:

- the type of the Młodocin road node,
- the route of the designed road,
- the dividing lane width.

Variant I has been indicated for implementation.

The description of the project constitutes an annex to the decision.

2. Conditions for the use of the land during the implementation and operation of the undertaking, with particular consideration of the need to protect precious environmental and natural resources and historic buildings, and to reduce the impact on the neighbouring areas:

- 1) construction works (including transport of construction materials) that are acoustically burdensome and cause vibrations should be conducted during the day (i.e. from 6 a.m. to 8 p.m.);
- 2) construction site facilities and the place for storing construction materials should be located at the furthest possible distance away from residential structures, outside wooded areas and wetlands (including the Oronki River valley), away from reservoirs, watercourses and irrigation ditches;
- 3) sanitary sewage should be collected in portable holding tanks and transported using suitable vehicles to the nearest waste water treatment plant;
- 4) all works should be conducted using technically efficient equipment, operated and maintained in a correct manner, with minor acoustic nuisance;
- 5) construction machines causing the least vibrations should be selected;
- 6) the work plan should be developed and implemented so that machines with a high sound intensity do not work in the vicinity of residential structures at the same time and the use of construction equipment and vehicles is optimised (e.g. by eliminating any unnecessary transportation);
- 7) the effects of secondary dust formation should be limited during the execution of construction works by maintaining a high work culture, in particular: separating the investment area by means of fencing (if possible), systematic cleaning of the construction site and sprinkling with water (as needed), limitation of the speed of vehicles in the construction area, careful loading of loose materials onto vehicles, covering of loading boxes of vehicles transporting loose materials with planks (also refers to earth from excavations);
- 8) at the construction stage, ready-to-use mixtures of concrete and bituminous compounds manufactured outside the investment site must be used for foundations whenever possible; bituminous compounds must be transported with dump trucks fitted with canvas to reduce the emission of asphalt vapours;
- 9) the construction site should be protected so that amphibians do not enter the place where construction works are conducted; it is necessary to tightly fence the construction site at the following sections:
 - at km 0+060 – 0+510,
 - at km 0+780 – 0+980,
 - at km 2+910 – 3+110;
- 10) the construction site should be equipped with agents neutralising spilled oil-related substances; in the case of emergency pollution of earth with oil-related substances, the polluted earth should be immediately removed and passed for utilisation to an entity holding relevant permits in this scope;

- 11) the construction site and technical and staff facilities should be equipped with containers ensuring selective collection of waste depending on its type, possibility of further management or processing;
- 12) where possible, construction site rubble, soil, stones and bricks must be reused (e.g. for levelling the ground) or transferred to authorised parties; waste produced in the course of earthworks should be reused only if it is not contaminated with hazardous substances;
- 13) generated hazardous waste shall be collected in tightly closed and identified containers resistant to the action of the waste constituents they contain, located in a marked, fenced and roofed place with a hard-surfaced floor protected from the impact of atmospheric conditions; the waste should be transferred to authorised recipients; the hazardous waste storage facilities should be identified and safeguarded against any unauthorised access of people and animals;
- 14) waste other than hazardous should be selectively stored in tightly closed and identified containers located in a marked and roofed place with a hard-surfaced floor protected from the impact of atmospheric conditions and then transferred to authorised recipients;
- 15) waste plant matter – green parts, bark, branches and roots – are to be shredded and, where possible, collected and transferred to authorised parties for composting.
- 16) waste may not be stored in environmentally sensitive areas, i.e.:
 - forest and field wetlands – from km 0+000 to km 0+500,
 - wetlands in the Orońsko Forest in the area of Krogulcza Sucha – from km 2+600 to km 3+320,
 - marshy meadows between the Orońsko Forest and the no-name watercourse – from km 3+320 to km 3+520,
 - wetlands in the Oronki valley – from km 3+945 to km 4+200;
- 17) the belt of construction works within animal migration routes should be reduced to the indispensable minimum;
- 18) employees should be provided with sanitary and rest and refreshment facilities;
- 19) in order to protect surface and underground water, rainwater from the surface should be discharged using a tight rainwater sewage system and road ditches;
- 20) rainwater discharged by means of road ditches and the rainwater sewage system, before it is discharged to the environment, should be pre-treated in the scope of reduction of oil-related substances and total suspension in sedimentation tanks and separators;
- 21) in order to protect surface watercourses against pollution in the case of a serious breakdown, closing an outlet to a receiver should be applied;
- 22) at the stage of operation, the following rainwater pre-treatment equipment should be systematically inspected: separators, sedimentation tanks, storage reservoirs; that equipment should be emptied from the accumulated sludge and deposit; maintenance activities should be conducted by an entity holding relevant permits;
- 23) vegetation on the slopes of ditches and storage reservoirs should be kept in an appropriate condition by systematic mowing; waste generated as a result of maintenance of greenery within the road belt should be systematically removed and passed to authorised recipients;
- 24) ditches, chambers and other sewage devices should be kept unblocked;
- 25) in the course of performing earthworks, water erosion of slopes and embankments, especially in places where intercourses may be polluted, should be avoided;
- 26) clearance of trees and shrubs should be conducted outside the incubation period of birds, i.e. outside the period from March to the end of August;
- 27) in the course of construction, where the road passes through forest complexes, trees growing in the close vicinity should be individually protected or the forest should be separated by a fence;
- 28) trees not intended for clearance should be appropriately protected against mechanical damage, covering or damaging by the stored material; an area at least 1 m of a tree trunk should be fenced, if possible, special covers for specific trees should be absolutely applied; trunks should be lined with boards, filling the space between the trunk and the board with straw mats or rolled jute which will absorb any external shocks. It is inadmissible to drive nails into trunks. Boarding should reach the height of the lower branches of crowns of trees. The lower end of the board should be supported on the ground, not on root swelling;
- 29) all works in the area of root masses should be manually conducted. The determinant of the range of the area of manual works is the outline of the tree crown. In the case of deep excavations

special panels protecting root systems should be performed, with the application of a biologically active foundation which will allow for quick root reconstruction. Live parts of crowns should be cut only as a last resort, under supervision of an authorised person;

30) works connected with construction of reinforced channels, through which pre-treated rainwater will flow, should be performed outside the breeding season of protected species of fish, i.e. from August to January;

31) works connected with disturbance of flow and opacity of water in watercourses should be reduced to the indispensable minimum;

32) any field works connected with correction of the bed of a watercourse or an irrigation ditch should be conducted from the second half of August to the end of the year;

33) as part of reconstruction of a few smaller watercourses and irrigation ditches, in the first order a new fragment of a riverbed should be prepared and appropriately protected and then water should be introduced; the outer layer of soil with vegetation should be carefully removed and appropriately stored and then used for reclamation of the removed fragment of the watercourse bed;

34) when shaping a new bed, parameters similar to the natural bed should be assumed on the moved section in order to achieve water flow speed velocity close to the natural one;

35) banks of a new bed should be reinforced using natural materials; it is excluded to apply gabions [handwriting] *there are no gabions...* [handwriting]

36) in the course of construction works animals should be provided with the possibility to escape from the area covered by the project implementation. If animals (amphibians, fish and small mammals) cannot escape, they must be moved to proper habitats outside the investment project site, under environmental supervision;

37) in connection with destruction of a water basin (place of spawning of amphibians) at km 0+800, removal works should be conducted under the following conditions:

- environmental supervision of a herpetologist,
- removing the reservoir in September,
- after lowering the water level (letting out the water), the bottom should be penetrated by qualified employees and animals should be caught,
- protection of caught animals – the necessity to prepare appropriate reservoirs for storing them,
- transporting and releasing the animals in another habitat in which they are present in a natural manner and which is located far away enough that they will not return within a few days to the area of works,
- after animals are caught, the reservoir should be covered by a small, one-sided frontage in the presence of a zoologist on the forefield of the covered area;

38) as part of compensation in connection with covering the water basin, a water reservoir of an area of 550 m² should be reconstructed, located as close as possible to the damaged watercourse, with which the planned investment collides;

39) at the stage of designing a water reservoir, parameters appropriate for spawning of amphibians should be assumed (shallow, wide coastal zone of a reservoir, elongated shore-line, variable depth of a pond, slopes with inclination not larger than 1:3, covered with humus and reinforced by native species of grass, planted with natural vegetation, e.g. willow);

40) a new water area should be established in the period from the beginning of September to the end of January, before covering the pond colliding with the investment in question;

41) losses in greenery should be compensated by means of introducing new plants which will have an insulating and protecting function (shielding and insulating greenery along transport routes) and decorative function (especially in the area of the Młodocin road node, on acoustic screens);

42) passages for animals should be planted with leading and shielding vegetation and parts of an ecotone zone between the designed road and the forest should be reconstructed;

43) in connection with collision of the investment with areas of the habitats specified in Annex I of the Habitat Directive: thermophilic, inland psammophilic vegetation (6120*) – a collision at km 4+370 – 4+600; low pressure and mountain meadows extensively used (6510) – a collision at km 1+930 – 1+970, 3+440 – 3+480, 3+480 – 3+520, 4+080 – 4+120; willow, poplar, alder and ash wetlands (91E0*) – a collision at km 2+560 – 3+320, 4+000 – 4+050, in order to reduce damage to those places, the following conditions are introduced: .

- maximum reduction of the time of works,

- maximum narrowing of the construction zone together with its fencing,
 - lines of the construction site may not be exceeded, especially using heavy equipment,
 - areas for the construction site facilities, bases of materials, access routes to the construction site may not be temporarily occupied;
 - reconstruction of an ecotone zone at the section running through the Orońsko Forest after completion of works,
 - works (especially earthworks) should be conducted in the shortest possible time, in the period from the end of September to November,
 - purchase of wooded land in the Oronki River valley and conducting the forest management by the Regional Directorate of National Forests in the scope of maintenance of riparian forest communities as a measure minimising destruction of the kept riparian forest area – priority habitat 91E0* in the Orońsko Forest in the vicinity of Krogulcza Sucha, taking into account the aim of keeping the relevant condition of the habitat according to the Main Inspectorate of Environmental Protection;
- 44) in the case of implementation of archaeological excavation works, environmental supervision should be ensured both with regard to the above-mentioned works, as well as access roads and places for equipment bases assigned for this purpose;
- 45) environmental supervision over works conducted at the stage of construction of the S7 expressway should be applied. The supervision should cover, in the scope of protection of habitats and species of plants, control over organisation of works and the construction site together with the construction site facilities (especially in the area of the surveyed habitats from Annex I of the Habitat Directive) and supervision over works connected with planting in the reconstructed part of the ecotone zone of the Orońsko Forest;
- 46) environmental supervision should be also applied in order to verify the recommended solutions in the scope of environment protection, mainly in the scope of structures of passages for animals and works involving covering a small water reservoir constituting an incubation place for amphibians and making a reservoir favourable for the procreation of that group of animals;
- 47) environmental supervision should be provided by persons experienced within this scope;
- 48) after completion of works the investment area should be cleared away and restored to the state of environmental functionality;
- 49) in order to minimise the impact of vibrations and reduce damage to buildings in the investment implementation stage, the following measures should be undertaken:
- light vibrating rollers (pressure force up to 50kN) should be operated 20 m away from buildings, whereas heavy vibrating rollers (pressure force above 80kN) should be operated 60 m away from buildings,
 - rollers with the least range of negative impact should be applied,
 - measures protecting buildings located outside the road belt within the range of negative dynamic impacts have been planned,
 - technology ensuring the minimum impact of vibrations on buildings should be applied,
 - heavy vehicles used in the course of construction works should be operated more than 15 m away from buildings,
 - measurements of the impact of vibrations should be performed with regard to selected buildings located in the project impact zone,
 - the technical condition of all buildings in the area of dynamic impacts should be surveyed;

3. Environmental protection requirements to be included in the documents required for the issuing of the decision referred to in Article 72 section 1 of the EIA Act:

- 1) performance of acoustic screens of technical parameters and consistently with the location presented in the report:
- screen at the section from km 0+820 to km 1+420 of a height of 4 m, on the left side,
 - screen at the section from km 1+420 to km 1+550 of a height of 4.5 m, on the left side,
 - screen at the section from km 1+550 to km 1+563 of a height of 4 m, on the left side,
 - screen at the section from km 1+563 to km 1+728 of a height of 4 m, on the left side,
 - screen at the section from km 1+530 to km 1+710 of a height of 4 m, on the right side,
 - screen at the section from km 1+710 to km 2+047 of a height of 5.5 m + octagon, on the right side,

- screen at the section from km 2+399 to km 2+787 of a height of 5 m + octagon, on the right side,
 - screen at the section from km 2+787 to km 2+828 of a height of 4 m + octagon, on the right side,
 - screen at the section from km 2+828 to km 3+188 of a height of 5 m + octagon, on the right side,
 - screen at the section from km 3+673 to km 3+802 of a height of 5 m + octagon, on the right side,
 - screen at the section from km 3+802 to km 3+893.5 of a height of 4 m + octagon, on the right side,
 - screen at the section from km 3+893.5 to km 4+208 of a height of 4 m + octagon, on the right side,
 - screen at the section from km 4+208 to km 4+603 of a height of 5 m + octagon, on the right side,
 - screen at the section from km 3+797 to km 3+894 of a height of 4 m + octagon, on the left side,
 - screen at the section from km 3+894 to km 4+219 of a height of 4 m, on the left side,
 - screen at the section from km 4+219 to km 4+550 of a height of 5 m + octagon, on the left side,
 - screen at the existing national road no. 7 on the west side from the Młodocin node within dividing lines with a break on the intersection with an access road to the residential and commercial building at the section from km 0+021.5 to km 0+095.6 and from km 0+106.1 to km 0+183.4 of a height of 4 m, on the left side,
 - screen at the existing national road no. 7 on the east side from the Młodocin node within dividing lines with a break on the intersection with the commune road (DG6) to Kały at the section from km 0+000 to km 0+042 and from km 0+065.3 to km 0+161 of a height of 4.5 m, on the left side;
- 2) construction of straight and translucent acoustic screens should be taken into account, which will have the function of an anti-glare and acoustic barrier at passages for animals combined with a flyover over the Oronka River and on facilities adapted for the needs of medium-sized animals;
 - 3) anti-glare panels should be applied at the medium-sized passage next to Krogulcza Sucha from the area of the forest within a section of 15 m of the passage axis in both directions; panels should be placed above the inlet of the passage (close to the lane edge, if possible);
 - 4) anti-glare panels and acoustic screens should be planted with creepers in place where technical conditions allow for it;
 - 5) a rainwater sewer system should be performed at the following sections:
 - from km 0+000 to km 1+550
 - from km 1+700 to km 2+100
 - from km 3+300 to km 3+750
 - from km 3+910 to km 4+100
 - from km 4+200 to km 4+250;
 - 6) storage reservoirs for collection of excessive amounts of water and reduction of velocity of flow should be performed before discharging rainwater to the existing watercourses in the following places:
 - approx. from km 0+450 right and left side,
 - approx. from km 0+900 right and left side,
 - approx. km 1+590, Młodocin node, right side,
 - approx. km 1+700, Młodocin node, left side,
 - approx. km 3+450, left side,
 - approx. km 4+200, right side;
 - 7) rainwater sewage should be discharged to the following receivers:
 - at km 0+413 to the irrigation ditch,
 - at km 0+876 to the irrigation ditch,
 - at km 3+400 to the stream from the area of Krogulcza,
 - at km 4+070 to the Oronki River;
 - 8) the planned project should be carried out using materials that guarantee tightness, resistance, exhibit no aggressiveness towards the natural environment and carry the required technical approvals;
 - 9) the investment implementation should guarantee the possibility of the migration of animals, which is why the following animal passages should be designed and performed:
 - a) small passage – viaduct within the S7 road over the commune road, adapted to the needs of migration of small animals at km 2+809 (PZS-5/WD-01) should be performed according to the following guidelines:

- ground area belts of a width of approx. 4 m should be left, grassy vegetation should be planted under the viaduct on both sides of the local road (access to Krogulcza),
 - ground slopes of drainage ditches (for the local road) under the viaduct should be left,
 - ditches draining the S7 road and service roads should be supplied with a sewage system at the section between bridge head edges,
 - lead fencing should be made between the service road and the ditch draining the S7 road, a crossing through the ditch and connection to the facility abutment should be made in the place where the ditch is supplied by the sewage system,
 - ditches should be filled with round stones not disturbing the water flow, on whose surface animals will be able to move;
- b) medium-sized passage – road bridge adapted to the needs of migration of medium-sized and small animals at km 3+500 (PZS-7/MD-02) should be performed according to the following guidelines:
- approx. 4 m wide ground belts of the area of a shelf should be left (on both sides of the watercourse) and grassy vegetation should be planted,
 - ground slopes of the watercourse should be left,
 - protective fencing should be introduced between the S7 road and service roads,
 - non-transparent acoustic screens or anti-glare panels should be applied,
 - all drainage facilities should be located under the ground surface,
 - ditches draining the S7 road and service roads should be supplied with a sewage system at the section between edges of abutments,
 - lead fencing should be made between the service road and the ditch draining the S7 road, a crossing through the ditch and connection to the facility abutment should be made in the place where the ditch is supplied by the sewage system so that small animals cannot get through;
- c) large lower passage for large animals combined with a flyover within the S7 road over the Oronka River and poviast roads at km 4+065 (PZD-8/MD-03) should be performed according to the following guidelines:
- natural slopes of the watercourse should be left,
 - the ZB-2 reservoir should be fenced,
 - equipment pre-treating rainwater should be entirely located under the ground surface,
 - lead vegetation should be introduced in the area of abutments,
 - the acoustic screen on the facility should be adapted in such a manner so that it has the function of an anti-glare panel (it should be totally absorbing or optionally – lower part of 2 m should be absorbing and the remaining part should be transparent using vertical black stripes in order to reduce collisions of birds with screens),
 - leading and protecting vegetation should be planted along the flyover,
 - lighting of flat fitting should be applied on the flyover only in the area of buildings,
 - in the belt of the division a skylight providing additional light to the area before the passage should be applied,
 - drainage ditches (along the S7 road) should be supplied with a sewage system in which the basis of embankments turns towards the bridge,
 - the area at the passage should be planted with trees;
- d) passages for small animals and amphibians:
- passage for small animals/amphibians at km 0+170 (PZM-PP1/PD21A h-1.4m, d-1.8m),
 - passage for small animals/amphibians at km 0+412 (PZM-PP2/PD22 h-2,5m, d-4,0m),
 - passage for small animals/amphibians equipped with a dry shelf at km 0+875 (PZM-PP3/PD23 h-2.5m, d-2.5m),
 - passage for small animals at km 2+495 (PZM-4/PZM-1 h-1.5m, d-2m),
 - passage for small animals and amphibians at km 3+010(PZM-PP6/PZM-PP-2 h-1.5m, d-2m);
- 10) additional culverts for amphibians should be made at km 0+300 and km 0+600 and directing fences should be applied in that place;
- 11) passages for animals, especially for large animals, should be planted with vegetation. Trees and shrubs should be planted in a clump form (a few – a dozen or so specimens) in the area of embankments of passages;

- 12) the surface of passages should be covered with a layer of mineral ground tightly covering the bottom of the culvert and the surface should be levelled. The fencing must be tightly connected to the front of the culvert or pass directly over the culvert inlet;
- 13) in the event that an approach area to the passage is crossed by transverse drainage ditches, they should be supplied with a sewage system (pipeline) at the length of at least 5 m from the passage axis in each direction;
- 14) if it is not possible to provide the ditches draining service roads with a sewage system, the stepping stone solution should be applied – the solution involves filling the ditch with rounded stones between which water may flow and animals will move on their surface;
- 15) the ZR-45 and ZR-46 irrigation reservoirs located in close vicinity of approaches to animal passages should be fenced and the access road to such passages should be made of natural materials such as breakstone, gravel;
- 16) the route should be fenced between the service road and the ditch draining the S7 road; the drainage ditch will be crossed in places in which it is supplied with a sewage system; a grid should be made where the ditch is crossed and connected to the front of the culvert so that animals and amphibians may not enter the area of the expressway;
- 17) in the area of facilities serving as passages for amphibians, on both sides of the road additional directing fences to the passages should be applied in the form of a grid made of plastic with a small mesh (0.5 × 0.5 cm) permanently fixed to the protective fencing; the grid should be at least 50 cm high; the upper edge should be deflected at 90° towards the approach of amphibians to the fence, creating a so-called overhang making it impossible for amphibians to cross or climb up the grid; in order to correctly shape the overhang, a metal angle to which the overhang will be permanently fastened should be installed on each pole of the fence in the area of directing fences; the grid has to tightly adhere to the ground surface and has to be anchored in a stable manner, therefore it is recommended to dig its lower edge under the ground surface to a depth of at least 10 cm;
- 18) fences for amphibians directing to the passages should be located in the following places:
 - at km 0+060 – 0+510,
 - at km 0+780 – 0+980,
 - at km 2+910 – 3+110;
- 19) on the culverts combined with watercourses it is recommended to keep zones of a dry riverside area on both sides of the watercourse, not less than 0.5 m, measured at average levels of water (so-called ground shelves);
- 20) if the entire section of the culvert is filled with water, dry shelves on both sides of the culverts of a width of not less than 50 cm should be applied; Shelves will be made of plastic or concrete; shelf edges will make it possible to apply geo-grid on the surface of shelves and then they will be covered with earth; approaches to shelves have to be appropriately connected to the existing area so that small animals and amphibians may freely migrate;
- 21) grassy vegetation cover should be introduced under the surface of lower passages by means of sowing them with species of grass of medium and high type, as well as spontaneous expansion of vegetation should be allowed and supported;
- 22) the project should take into account smooth connection of protective fencing along the expressway with outlets of lower passages, as well as thick and row-arranged plantations of shrubs along the fencing, joining with the front of lower passages;
- 23) trees and shrubs in the area of approaches to lower passages should be introduced in such a manner so that continuous or interrupted belts at an acute angle in relation to the middle axis of the passage may be created;
- 24) the fencing should be lead closely to the lane edge, if possible, interfering with the surrounding area to the least possible extent;
- 25) if the road is routed on an embankment, the fencing has to be located on the base of the embankment;
- 26) protective fencing along the expressway must be tightly connected to the abutments of lower animal passages;
- 27) as far as culverts for small animals, amphibians and watercourses are concerned, the fencing must be tightly connected to the front of the culvert or pass directly over the culvert inlet;

- 28) effective protective fencing must have the following features and parameters:
- a minimum height of 240 cm at the section of the collision with the Oronki River valley (km 3+480 – km 4+200), serving as a local migration route of animals and at a fragment of the road within the area of the riparian forest in the area of Sucha Krogulcza (km 2+560 – 3+320), for the remaining sections – 220 cm high,
 - the grid should be dug under the ground surface to a depth of a minimum of 30 cm in order to stabilise its lower edge and make it impossible to undermine it; moreover the grid should have a variable size of mesh, depending on the height; up to 50 cm from the ground surface – the grid should have a mesh of 2.5 × 1.5 cm, and above, up to the height of approx. 120 cm – the mesh size of 5 × 15 cm and over that height – the mesh size of 15 × 15 cm; at sections of the found migration of amphibians and small animals and up to 100 m away from those places in both directions – additional protection in the form of a grid made of plastic up to 50 cm high and mesh size of 0.5 × 0.5, permanently connected with the fencing, should be applied; protective fencing must be tightly connected to the front of lower passages for animals and as far as culverts for small animals, amphibians and watercourses are concerned, the fencing must be tightly connected to the front of the culvert or pass directly over the culvert inlet,
 - performance of a solid foundation of metal posts ensuring the possibility of strong grid tension and ensuring the vertical stability of the structure – it is recommended that permissible deflections from the vertical line do not exceed 1 cm,
 - spacing of metal posts should not exceed 300 cm,
 - the fencing should be lead along straight lines or with gentle curves, meaning that refractions of individual straight sections of the fence may not be greater than 15°, if the fencing crosses exits from the service road, closed access gates will be installed, with a door-closer the best;
- 29) shielding and insulating greenery should be located at km 0+440 – 0+875/L; at km 0+500 – 3+020/R (node); at km 1+580 – 2+060/L (node); at km 2+300 – 2+350 L; at km 3+475 – 3+670/R; at km 3+560 – 3+685/L; at km 3+785 – 4+180/R; at km 3+840 – 3+900/L; at km 4+130 – 4+160/L; at km 4+190 – 4+565/L, after consultations and supervision of the landscape architect;
- 30) greenery of the reconstructed fragment of the ecotone zone should be located at km 2+830 – 3+340/L.
- 31) greenery at irrigation reservoirs should be located at km 0+830 – 0+880/L; at km 1+500 – 1+600/R; at km 1+680 – 1+780/L; at km 3+420 – 3+510/L; at km 4+190 – 4+300/R.

II. I state that performing an environmental impact assessment as part of the procedure on issuing the decision referred to in Article 72 section 1 of the EIA Act is not necessary.

III. I state that conducting an environmental impact monitoring for the project is necessary:

- 1) in the scope of elements of the nature – a 3-year monitoring (counting from the date of putting the investment into operation) should cover:
 - mortality rate of animals as a result of collisions with vehicles – results should be presented in tables with division into the following columns: Polish name of species, Latin name of species, collision place, time, comment with grade; that element of the monitoring should be sent to the Regional Director for Environmental Protection in Warsaw each time in the form of an annual report, not later than by the end of February for the period of the previous calendar year;
 - use of passages for animals by individual species (groups of animals with similar species ecology; that element of the monitoring should be each time submitted without delay, however not later than within 2 months after the lapse of the required 3 years;
- 2) a programme of the environmental monitoring should be prepared in the following scope: noise, pollution of air and sewage management (periodic inspections of the condition of efficiency of equipment used for pre-treatment and discharge of rainwater);

IV. I impose the obligation to conduct a post-implementation analysis:

- 1) for the noise level, pollution of air, soil and surface and underground water – in the form of control measurements conducted within 12 months from the day of commissioning the road to use, and presenting the results to a competent authority within 18 months from the day of commissioning the object to use in order to assess the effectiveness of the applied environmental protection solutions;**

For noise protection, the acoustic impact must be measured in areas adjacent to the said road section subject to acoustic protection in the following points:

No. PDH-A	chainage according to the report/road side
1	km 1+650/left
2	km 2+800/right
3	km 4+160/left
4	km 4+290/right

The post-implementation analysis shall include control measurements of air pollution conducted in the vicinity of the investment in question, in the region of residential structures and arable land. In turn, for pollution of soil, surface and underground water and the effectiveness of application of protective means, measurements should be conducted at outlets from channels discharging water from the road to receivers.

- 2) in the scope of effectiveness of passages for animals indicated in point 1.3. sections 9 and 10 of the conclusion of the decision, the analysis should be prepared using the monitoring results, referred to in point III.1 of the conclusion of the decision after the lapse of 42 months of putting the facility into use and immediately submitted – i.e. not later than within 2 additional months to the Regional Director for Environmental Protection in Warsaw;**

V. I hereby make this decision immediately enforceable.

JUSTIFICATION

On 4 August 2010 the Regional Director for Environmental Protection in Warsaw received the application of Mr Stanisław Dmuchowski – the Proxy of the General Director of National Roads and Motorways – of 29 July 2010, for issuing a decision on environmental considerations for the project involving construction of the S7 national road of the parameters of an expressway within the new route at the Młodocin – Krogulcza Sucha – Orońsko section.

The type of the investment and the fact of classifying the investment to projects which may always have a significant impact on the environment confirmed the jurisdiction of the Regional Director for Environmental Protection in Warsaw in the case in question, resulting from Article 75 section 1 point 1(a) the first tiret of the EIA Act.

The type, technical parameters and the range of the potential environmental impact of the said investment classify it into the group of investments referred to in § 2 section 1 item 29 of the Regulation of the Council of Ministers of 9 November 2004 on determining the kinds of project that may have a considerable impact on the environment and on the detailed conditions related to qualifying the project for drawing up an environmental impact report (Journal of Laws No. 257, item 2573, as amended). Pursuant to § 4 of the Regulation of the Council of Ministers of 9 November 2010 on projects that may have considerable environmental impact (Journal of Laws No. 213, item 1397), the proceedings concerning the decision, referred to in Article 71 section 1 of the EIA Act, initiated before the effective date of this regulation, shall be governed by the current provisions.

In the course of the administrative procedure aimed at issuing a decision on environmental considerations for the said investment, the following documents have been analysed:

- request for issuing a decision on environmental considerations,
- environmental impact report of the project, together with supplementations,
- certified copies of registration maps of the area on which the investment is to be implemented and the area affected by the investment,
- excerpts from the land register for the area on which the investment is to be implemented and the area affected by the investment,
- power of attorney,

as well as the opinion of the National Voivodeship Sanitary Inspector in Warsaw of 13 October 2010, Ref. No.: ZNS.7170-1667-1/10.PN, containing comments on the hygiene and sanitary requirements necessary to be met in the course of the project implementation and operation, required pursuant to Article 77 section 1 item 2 of the EIA Act, has been obtained. Comments submitted by the Sanitary Inspector were taken into account in whole (point 1.2 sections 1, 2, 4, 10, 49; point 1.3 section 1 and point IV. section 1 of decision conclusion).

The analysis, referred to above, has confirmed that the content of the submitted report, along with supplementations, complies with Article 66 of the EIA Act, and the conditions for implementing the investment contained therein and the planned solutions for environmental protection were reasonable and adequate for the type and scale of the investment's environmental impact. In order to minimise the environmental impact of the examined investment, the authority took full account of the above-mentioned conditions included in the report and, based on them, specified the following:

- 1) the kind and place of the project implementation (item 1.1 of the decision);
- 2) conditions for the use of the land at the implementation and operational stages with particular emphasis on the need to protect environmentally precious values, natural resources and historic monuments, and to reduce the negative effect on neighbouring areas (item 1.2 of the decision conclusion);
- 3) environmental protection requirements to be included in the documents required for issuing the decision referred to in Article 72 section 1 of the EIA Act (item 1.3 of the decision conclusion).
The above-mentioned conditions, requirements and recommendations are reasonably justified based on the laws and general principles of social order, according to which the environmental considerations for the investment can be justified as presented below.

The works related to the implementation of the investment will cause noise nuisance as a result of the operation of construction machinery and other equipment (e.g. during the clearance of trees) and by vehicles used during construction. Therefore, taking into account maintaining an appropriate acoustic and vibration climate around the investment area in the course of its implementation, the Investor has been obliged to locate the construction site facilities as far from the residential structures as possible (item 1.2 section 2 of the decision conclusion) and conduct works outside night hours (item 1.2 section 1 of the decision conclusion), using technically efficient equipment, operated and maintained in a correct manner, with low acoustic nuisance and causing the least vibrations (item 1.2 section 4 and section 5 of the decision conclusion). To minimise the impact of the construction stage on the environment, the living conditions and health of people, a work plan must be developed and implemented so that machines with a high sound intensity do not work in the vicinity of residential structures at the same time and the use of construction equipment and vehicles is optimised (e.g. by eliminating any unnecessary transportation) (item 1.2 section 6 of decision conclusion).

In order to minimise the impact of vibrations and to reduce damage to buildings in the course of implementation, the Investor has been obliged to adhere to the conditions contained in item 1.2 section 49 of the decision conclusion. The nuisance related to the reconstruction of the road will be temporary in nature and will cease when the project implementation stage is completed.

In order to ensure that the permissible values of noise level in the areas acoustically protected are met, the Investor has been obliged to provide acoustic screens. In order to verify the actual acoustic impact of the planned undertaking and assess the effectiveness of the applied screens, the Investor has been obliged to perform an as-implementation analysis (item IV.1. of the decision conclusion), the results of which will make it possible to make indispensable correction of the location and parameters of

acoustic screens, referred to in item 1.3 section 1 of the decision conclusion, in order to ensure the best possible protection of areas neighbouring with the road in question, as well as to make it possible to design and perform additional acoustic protection ensuring meeting the permissible noise levels in the environment or in order to confirm the necessity to create a limited use area in the event of finding that the permissible levels of noise, as a result of the project operation, have been exceeded. To ensure constant monitoring of the acoustic impact of the planned road on adjacent areas, the Investor has been obliged to prepare an environmental monitoring programme, including noise level monitoring (item III section 2 of decision conclusion).

In the period of implementation the investment will cause nuisance involving the emission of air pollutants produced in the process of fuel combustion in the internal combustion engines of lorries and other vehicles used for construction works. In addition, dust formation may occur during earthworks and demolition works. To reduce the negative impact of the above-mentioned factors on areas in the direct vicinity, during the construction of the said investment, the Investor has been obliged to limit the effects of secondary dust formation by, among other things, maintaining a high working culture and, in particular: fencing the investment area, systematic cleaning of the construction site and sprinkling with water, limitation of the speed of vehicles in the construction area, careful loading of loose materials onto vehicles, covering of loading boxes of vehicles transporting loose materials with planks (item 1.2. section 7 of the decision conclusion) and application of ready-to-use mixtures of concrete and bituminous compounds manufactured outside the investment site (item 1.2 section 8 of the decision conclusion). Bituminous compounds must be transported with dump trucks fitted with canvas to reduce the emission of asphalt vapours (item 1.2. section 8 of the decision conclusion). Meeting the above conditions will make it possible to minimise that nuisance. Moreover, the emission of air pollutants during the implementation of the investment will be temporary and the related nuisance will cease once the construction works are completed.

In the course of operation of the designed road, pollution connected with transportation, caused by moving vehicles, will occur; the results of the analyses presented in the report show that the permissible concentrations of air pollution are met within the area of the road belt for the Młodocin node in 2013 and their reduction in the further time horizon. The investment implementation will increase the smoothness and capacity of traffic in relation to the existing condition and, as a consequence, will contribute to reducing the emission of transportation pollution and meeting the standards applicable in this scope. In order to prevent pollution from the road from moving, the Investor has been obliged to design and make mixed insulating green belts. Introduction of plantings, after consultations and under the environmental supervision of a landscape architect, will ensure the correctness and effectiveness of such procedures (item 1.3. section 29 of the decision conclusion). The actual impact of the operation of the road on air quality, taking account of background pollution in the region of the planned investment, will be specified after the post-implementation analysis, referred to in item IV. section 1 of the decision, which will involve the measurement of air pollution in the direct vicinity of the road. In the event that the quality environment standards may not be met, the Investor will be obliged to undertake measures aimed at creating a limited use area and specify its optimal range. Moreover, in order to ensure constant control of the impact of the planned road on the atmospheric air condition in areas in the vicinity of the road, the Investor is obliged to prepare an environmental monitoring programme, including in the scope of the air quality control, referred to in item III. section 2 of the decision conclusion.

To protect the soil and water environment during the construction works in the region of the expanded road, the Investor has been obliged to use suitable organisational and technical measures, according to which the construction site facilities (in particular areas where construction machines and vehicles are parked and maintained) will be protected against pollution (mainly oil-derived substances) of soil and water (item 1.2. section 10 of the decision conclusion). The construction site facilities, machinery stock and places of storing construction materials should be located outside the Oronki River valley and wetlands, outside reservoirs, watercourses and irrigation ditches (item 1.2. section 2 of the decision conclusion). The construction site should be equipped with agents neutralising oil-related

substances and, in the event of polluting the earth with oil-related substances, the polluted earth has to be immediately removed and passed for utilisation to an entity holding relevant qualifications in this scope (item 1.2. section 10 of the decision conclusion). To protect the soil and water environment and to ensure suitable sanitary, hygienic and working conditions on the construction site, the construction site must have sanitary facilities and staff rooms (item 1.2. section 18 of the decision conclusion). Sanitary sewage should be collected in portable holding tanks and transported using suitable vehicles to the nearest waste water treatment plant (item 1.2. section 3 of the decision conclusion). Moreover, the Investor has been obliged to conduct earthworks in a manner protecting against water erosion of slopes and embankments, especially in the regions where watercourses may be polluted (item 1.2. section 25 of the decision conclusion).

In order to prevent and reduce the unbeneficial impact of the planned investment on the soil and water environment at the stage of its operation, the Investor has been obliged to conduct the water and sewage management in the vicinity of the planned road in a correct manner by, among other things, draining the road by road ditches and a rainwater sewage system using storage reservoirs (item 1.2. section 19, item 1.3 section 5 and item 1.3. section 6 of the decision conclusion), maintaining the passability of ditches, chambers and other sewage equipment (item 1.2. section 24 of the decision conclusion), making systematic reviews of rainwater pre-treatment equipment such as separators, sedimentation tanks, storage reservoirs and emptying them from the accumulated sledge and deposits by an entity holding relevant qualifications (item 1.2. section 22 of the decision conclusion). Moreover, rainwater discharged by road ditches and the sewage system, before discharging it to appropriate receivers (item 1.3. section 7 of the decision conclusion), should be pre-treated in the scope of reduction of oil-related substances and total suspension (item 1.2. section 20 of the decision conclusion). In order to keep the system discharging rainwater unclogged, vegetation on the slopes of ditches and storage reservoirs should be kept in an appropriate condition by its systematic mowing and systematic removal of waste generated in the course of maintaining the greenery in the road belt, which should be transferred to authorised recipients (item 1.2. section 23 of the decision conclusion).

In order to protect surface watercourses against pollution in the case of a serious breakdown, closing an outlet to the receiver should be applied (item 1.2. section 21 of the decision conclusion). Provided that the suggested protective equipment is performed, the investment will not cause unfavourable changes in the soil and water environment. In order to ensure constant control of the impact of the planned road on the soil and water environment in the neighbouring areas, the Investor has been obliged to prepare the environment monitoring programme, referred to in item III section 2 of the decision conclusion, including in the scope of control over sewage management involving, among other things, periodic controls of the condition of the efficiency of equipment used to pre-treat and discharge rainwater, whereas in order to assess the effectiveness of the applied solutions aimed at preventing the soil, surface and underground water from polluting, the Investor has been obliged to prepare an as-implementation analysis (item IV. section 1 of the decision conclusion).

In order to avoid and reduce the negative impact on the environment in the vicinity of the investment in question – connected with waste generated in the course of conducting construction and demolition works at the stage of the project implementation, including hazardous waste and waste that may be generated as a result of a serious breakdown, as well as waste generated as a result of operation of the road in question, the Investor should conduct reasonable waste management, equipping the construction site and the construction site facilities and technical and staff rooms with containers ensuring the selective collection of waste depending on its type and the possibility of further management or processing (item 1.2. section 11 of the decision conclusion). At the stage of conducting demolition and construction works, in the course of implementation of the investment in question, waste in the form of construction rubble and soil and earth, including stones and crushed brick (if it is not polluted by dangerous substances), generated in the course of earthworks, should be used to the greatest possible extent or transferred to authorised recipients (item 1.2. section 12 of decision conclusion). Hazardous waste must be collected in closed, tight and labelled containers that are resistant to the substances contained in the waste, located in a designated, enclosed and roofed place with a hardened surface, and protected against weather conditions. Then, hazardous waste

should be transferred to authorised parties. At the same time, the Investor has been obliged to label the storage site for hazardous waste and to protect it from access by unauthorised persons and animals (item 1.2. section 13 of the decision conclusion). Waste other than hazardous should be selectively stored by the Investor in closed, tight and labelled containers located in a designated, roofed place with a hardened surface, protected against weather conditions and then transferred to authorised entities (item 1.2. section 14 of the decision conclusion), but waste plant masses – green parts, bark, branches and roots should be crushed and directed, if possible, for composting or, after collecting an appropriate amount, transferred to authorised recipients (item 1.2. section 15 of the decision conclusion). In order to protect environmentally sensitive areas, the Investor has been obliged not to store waste on those areas (item 1.2. section 16 of the decision conclusion). Furthermore, in order to minimise the environmental impact connected with the waste generated around the said project site, the Investor has been obliged to indicate in the building permit design that the planned undertaking will be constructed from such materials that ensure tightness, have no adverse effect on the natural environment and carry the required technical approvals (item 1.3 section 8 of the decision conclusion). As a result of proper management of waste being generated in the process of construction and operation of the said investment, as per the conditions defined in this decision, the environmental impact connected with the generated waste will have no adverse effect on the areas within the immediate vicinity of the planned project site.

Within the area of the planned undertaking and in areas affected by it, there are no Natura 2000 ecological network areas. The closest Natura 2000 areas are: “The Skarżysko Forests” (PLH 26_01) and the “Kozienicka Mainstay” (PLB140013) Special Protection Area, which are located 20 km away.

Due to the road category, the number of moving vehicles, as well as their speed, solutions aimed at eliminating collisions of vehicles with animals resulting in a decreased mortality rate of animals, have been designed. Conditions on the route fencing have been introduced (item 1.3. sections 16, 24, 25, 26, 28 of the decision conclusion); they are aimed at preventing potential collisions with animals entering the road, as well as directing animals to passages. Conditions in the scope of construction of an appropriate system of passages and culverts for animals in the found places of their migration and performance of two additional culverts for amphibians at km 0+300 and km 0+600 (item 1.3. section 10 of the decision conclusion) have been introduced.

Conditions in the scope of appropriate land management in the area of passages and on their surface, as well as a system of directing animals to those passages, have been introduced (item 1.2. section 42 and item 1.3. sections 2, 3, 4, 11, 13, 14, 17, 18, 19, 20, 21, 22, 23, 27 and 42 of the decision conclusion). The above conditions are aimed at keeping animal migration corridors and, as a consequence, the possibility of gene pool replacement. The above-mentioned conditions have been also introduced in order to ensure the effective functioning of passages. Introduction of the time limitation connected with the clearance of trees outside the incubation period of birds (item 1.2. section 26 of the decision conclusion) and execution of works connected with construction of reinforced channels outside the procreation period of protected species of fish (item 1.2. section 30 of the decision conclusion) is aimed at making it possible for protected species to breed, minimising the number of abandoned nests and loss of clutches.

In order to minimise a psychophysical barrier of animals to use passages and to integrate a foreign element, which is the road with technical infrastructure, it has been suggested to introduce shielding and insulating greenery (item 1.2. section 41 of the decision conclusion, item 1.3. sections 29, 30 and 31 of the decision conclusion).

The deadlines and the scope of works connected with correction of intercourse have been also limited (item 1.2. sections 31, 32, 33, 34 and 35 of the decision conclusion). These conditions are connected with the vicinity of habitats, for whose proper functioning it is significant to keep an appropriate level of groundwater.

The planned road will be connected with the removal of trees. In order to minimise a negative impact of the clearance, conditions in the scope of performance of works in a careful manner, not having an adverse effect on other trees, have been introduced (item 1.2. sections 27, 28 and 29 of the decision conclusion).

In the area of the investment there are water basins, woodland, open agricultural areas, as well as 3 habitats included in Annex 1 of the Habitat Directive. There are also watercourses – ditches and the Oronka River. Part of these watercourses will be shifted. A water reservoir will be backfilled. Therefore, it has been ordered to perform a substitute water reservoir and transfer individuals of amphibians to the new habitat (item 1.2. sections 37, 38, 39 and 40 of the decision conclusion). It has been indicated to conduct the works under environmental supervision (item 1.2. section 46 of the decision conclusion). In order to conduct the works in a manner protecting the protected habitats and species, the condition of performing the environmental supervision at the stage of the road construction by a person with appropriate experience, has been also introduced (item 1.2. sections 45 and 47 of the decision conclusion).

In order to reduce a negative impact of the investment on places where amphibians reproduce, as well as on places of reproduction of small animals that may enter the construction site, conditions in the scope of fencing the construction area have been introduced (item 1.2. section 9 of the decision conclusion).

In order to verify the effectiveness of the indicated protective means, it has been ordered to conduct a monitoring of passages for animals (item III. section 1). It is aimed at assessment and confirmation of the effectiveness of the applied measures minimising the barrier impact of the road on fauna.

In order to improve functioning of the lower passage under the flyover, a condition of leaving a skylight providing additional light has been introduced (item 1.3. section 9 item c tiret 8 of the decision conclusion).

In order to exclude any damage to protected species of plants and reduce injuries and the mortality rate of mammals and entomofauna, the condition of conducting archaeological works under environmental supervision has been introduced (item 1.2. section 44 of the decision conclusion).

Fencing the ZR-45 and ZR-46 reservoirs in order to prevent amphibians and small animal from entering them and application of natural material on the access road are aimed at increasing the effectiveness of the ecological passage planned in the vicinity (item 1.3. section 15 of the decision conclusion).

After completion of works the investment area should be cleared away and restored to the state of environmental functionality (item 1.2. section 48 of the decision conclusion).

In the passages for small animals and amphibians PZM-4/PZM-1 and PZM-PP6/PZM-PP2, culverts have been changed into rectangular passages (item 1.3. section 9 d tiret 4, 5 of the decision conclusion). That solution is aimed at better functioning and use of the passage.

In order to reduce damage to precious areas of the habitats from Annex I of the Habitat Directive, conditions of appropriate organisation of works in this region have been introduced (item 1.2. section 43 of the decision conclusion).

In order to reduce the mortality rate of animals, the condition of providing the possibility of escape from the construction area by animals or transferring animals outside the investment area has been introduced (point 1.2. section 36 of the decision conclusion).

In order to protect environmentally valuable areas, the condition of locating the construction site facilities outside the Oronka River and valleys of other watercourses has been introduced (item 1.2. section 2 of the decision conclusion).

Due to the fact that the designed route is significantly far away from the facility entered in the register of historical monuments, negative impact on the protected cultural heritage is excluded.

At the stage of issuing the decision on environmental considerations, the available data on the investment allows for a sufficient assessment of its environmental impact. The authority, analysing the evidence material collected in the case and determining, on the basis of that material, the character and scale of the undertaking and the size and range of its impact on the environment, as well as suggesting solutions protecting the environment necessary to be applied, has concluded that if (at the stage of issuing the decision on environmental considerations) all parameters of the road are specified and it is possible to conduct precise analyses in the scope of their determination, which are indispensable to finally specify parameters of acoustic screens and, if final locations of animal passages have been specified, it is not necessary to impose on the Investor the obligation to conduct

environmental impact reassessment as part of the proceedings on issuing the decision, referred to in Article 72 section 1 of the EIA Act (item II of the decision conclusion).

In order to verify the effectiveness of the indicated protective means, it has been ordered to conduct a monitoring of animal passages (item III section 1). The monitoring is aimed at assessment and confirmation of the effectiveness of the applied measures minimising the barrier impact of the road on fauna.

In order to verify the effectiveness of the applied protective and minimising measures, the body imposed on the Investor the obligation to prepare an as-implementation analysis and present its results to the appropriate body. The analysis should be performed in the scope specified in item IV of the decision conclusion. Its results, together with results of the monitoring, will constitute the basis for concluding whether the impact of the undertaking has been effectively minimised and whether the residents of neighbouring areas, as well as fauna and flora living on areas bordering that covered by the investment, have been sufficiently protected.

For noise protection, the acoustic impact must be measured in areas adjacent to the said road section subject to acoustic protection. The post-implementation analysis shall include control measurements of air pollution conducted in the vicinity of the investment in question, in the region of residential structures and arable land. In turn, for pollution of soil, surface and underground water and effectiveness of application of protective means, measurements should be conducted at outlets from channels discharging water from the road to receivers.

If the standards are exceeded, the Investor will be obliged to undertake additional measures or works increasing the effectiveness of the existing environment protection equipment. In turn, if it is found that there are no technical or design possibilities to further avoid exceeding the standards, a decision on creating a limited use area will be taken.

In the scope of effectiveness of the undertaken mitigating measures in relation to the protected areas and species, the body imposed the obligation to perform an as-implementation analysis covering a comparison of determinations included in the environmental impact report and the decision on environmental considerations with the actual impact of the investment on the environment and actions undertaken in order to reduce it (item IV. section 2. of the decision). The analysis should include control of the accepted design solutions in relation to animal passages.

If it is found that the applied mitigating measures are not satisfactory, the analysis should indicate new measures aimed at reducing the negative impact on the environment.

Pursuant to Article 10 § 1 of the Administrative Procedure Code, the body conducting the investigation ensured the Parties' active participation at every stage of the investigation and, prior to the issuing of the decision, allowed them to express their opinions on the collected evidence and materials. Pursuant to Article 49 of the APC and Article 74 section 3 of the EIA Act, the parties have been informed of activities of the body conducting the proceedings in announcements (announcement about initiation of the proceedings, the announcement about applying for an opinion to the National Voivodeship Sanitary Inspector in Warsaw, the announcement about starting the environmental impact assessment for the project, the announcement about the possibility to become familiarised with the evidence material collected in the course of the proceedings and the announcement about placing information about the decision issued in the case in the public database). The announcements were posted on the notice boards in the Regional Directorate for Environmental Protection in Warsaw, Office of Kowal Commune, Office of Orońsko Commune, General Directorate for National Roads and Motorways, Warsaw Branch, and in the Public Information Bulletin of the Regional Directorate for Environmental Protection in Warsaw.

Pursuant to Article 30 of the EIA Act, the authority ensured the possibility of the participation of the public in the procedure as part of the environmental impact assessment for the investment.

Pursuant to Article 33 section 1 of the above-mentioned Act, the body conducting the proceedings published information about starting the environmental impact assessment for the investment.

**REGIONAL DIRECTOR FOR
ENVIRONMENTAL
PROTECTION IN WARSAW**

WOOS-II.4200.9.2011.DŚ

Annex to the decision on environmental conditions

Characteristics of the undertaking pursuant to Article 82 section 3 of the Act on Providing Access to Information concerning the Environment and Environmental Protection, Participation of the Public in Environmental Protection and on Environmental Impact Assessments (Journal of Laws No. 199, item 1227, as amended)

The planned undertaking involves construction of the S7 national road with the parameters of an expressway within a new route at the Młodocin Mniejszy – Krogulcza Sucha – Orońsko section. It will be implemented in the areas of the Radom and Szydłowiec Poviats and the Kowal and Orońsko Communes. The designed road will be approx. 4.6 km long and will run through the following places: Młodocin Mniejszy, Krogulcza Sucha and Orońsko.

The analysed section of the S7 expressway will commence within the final section of the designed Radom ring road in the areas of Młodocin Mniejszy, through the area of meadows and wasteland surrounded by small complexes of trees. Further, the route runs within a new route through typical agricultural areas (fields, meadows, wasteland and stands of trees), crosses the existing national road no. 7, cutting in the west fragment of the Orońsko Forest next to Krogulcza Sucha and then runs through the Oronka River valley. The end of the analysed section is located on wasteland located to the northeast of the Zamoście village. The borders of the end of study are set by the irrigation ditch.

The designed S7 expressway at the Młodocin – Krogulcza Sucha – Orońsko section runs within the new route in relation to the existing national road no. 7. From the beginning of the study to the Młodocin node, the planned route runs on the western side of the existing national road. Mainly, it intersects commune roads which, in order to maintain connections and access to fields, will be connected to service roads. The existing national road no. 7 at this section may be connected through the Młodocin node which will ensure all turning relations. Next, at sections from the Młodocin node to the end of the study in the area of Orońsko, the designed S7 route runs to the east of national road no. 7, where it intersects the existing network of commune and powiat roads. In order to keep the continuity and transport function of local roads, most of them will be routed under the expressway route by means of engineering facilities. At the analysed section, the design assumes construction of facilities within commune road no. 400402W in Krogulcza Sucha and powiat road no. 4010W in Orońsko.

Along the entire planned section of the S7 expressway, double-sided service roads will be routed, providing access to the adjacent area. The design assumes that service roads will be connected to the existing network of public roads, transversely going over or under the route of the expressway, making it possible to reach the other side of the road.

It has been also assumed to apply equipment aimed at minimising the unfavourable impact of the route on the natural environment (e.g. acoustic screens, rainwater pre-treatment equipment, passages for animals). The road will have a drainage system on its entire length.

The Investor accepted the following technical parameters for the above-mentioned road:

- road technical class – S (expressway),
- design velocity – 100 km/h,
- operating velocity – 110 km/h,
- load capacity – 115 kN/axle,

- traffic category – KR6
- road availability (limited to nodes),
- cross-section – dual,
- number of lanes – 2,
- traffic lane width: $2 \times 3.5 \text{ m} + 2.5 \text{ m}$ emergency lane,
- internal sideway width – 0.5 m;

A right-of-way has been also assumed for the purpose of making a third lane to the inside of the lane. That solution involves performing the target body of the expressway with a wide dividing lane (12.0 m) as early as at the first stage, constituting a reserve for addition of traffic lanes so that in the future it is not necessary to purchase additional land and to perform additional demolition in order to widen the lane.

In the course of implementation of the undertaking in question, as a result of conducting construction works, noise connected with the operation of machines and construction equipment and traffic of transportation vehicles will be emitted. The air pollution as a result of conducting earthworks and construction works (dusting) and vehicle traffic (emission of fumes) will also increase. Another nuisance connected with implementation of the planned project is the emission of vibrations caused by the operation of construction machines. A negative impact resulting from the improper transport, storage of waste, storage of raw materials and location of the construction site may also occur. The construction stage of the above-mentioned investment may be also a source of potential unfavourable impact on the soil and water environment. Sources of pollution will be household and technological waste from the construction site, leakages of substances washed out from disposal sites of construction materials, temporary disposal sites for waste coming from the demolition of facilities and elements of infrastructure, as well as leakages of grease and fuels from vehicles and machines. However, it may be concluded that the impacts occurred at the stage of the investment implementation, provided that special care is exercised when conducting construction works (taking into account the fact that they will be temporary and reversible, except for the impacts connected with relief and soil transformation), will not have a negative impact on the environment.

Operation of the investment in question in the vicinity of residential structures may constitute nuisance to the environment in the scope of the emission of noise, vibrations, air pollution, land pollution, as well as in the scope of water and sewage management and waste management.

In the course of operation of the designed road, transport pollution will be caused by traffic of vehicles: however results of the analyses presented in the report indicate that it is not assumed that the permissible levels of concentration of air pollutants will be exceeded outside the road belt in connection with operation of the road. Therefore, the road operation will not result in deterioration of the sanitary condition of the air on adjacent areas. Moreover, in order to ensure constant control of the impact of the planned road on the atmospheric air condition in the vicinity of the road, the Investor has been obliged to prepare an environmental monitoring programme, including in the scope of the air quality control. In order to prevent pollution from the road from moving, the Investor has been obliged to design and make mixed insulating green belts.

In terms of acoustic nuisance, vehicle traffic in the course of operation of the planned road would result in exceeding the permissible values of noise concentration in acoustically protected areas. In order to ensure the best possible protection of areas neighbouring with the road in question, acoustic screens will be made as equipment of protection against transport noise. The effectiveness of the applied screens will be assessed in the course of conducting an as-implementation analysis involving performance of noise concentration measurements in areas adjacent to the section of the road subject to acoustic protection. Results of the above-mentioned analysis will make it possible to make an indispensable correction of location and parameters of acoustic screens in order to ensure the best possible protection of areas adjacent to the road in question, as well as to confirm the necessity of designing and making additional acoustic protection ensuring meeting the permissible level of noise in the environment.

Operation of the undertaking in question may result in a negative impact on the soil and water environment caused by rainwater sewage connected with atmospheric precipitation flowing from the road surface and meltwater. Pollution of the soil and water environment in the course of operation of the road may be also connected with incidental discharge of hazardous substances as a result of breakdowns and road accidents. In order to prevent and reduce the unfavourable impact of the investment in question on the soil and water environment at the stage of its operation, the water and sewage management in the vicinity of the planned road will be conducted in a proper manner by draining the road by means of road ditches and a rainwater sewage system using storage reservoirs and pre-treatment of sewage before discharging it to final receivers.

In the operational stage of the investment, waste will be produced in the course of conducting repair and cleaning works. However, waste management conducted in a proper manner, pursuant to the applicable provisions, will ensure that the road operation will not have a negative impact on areas adjacent to the planned undertaking.

Within the area of the planned undertaking and in areas affected by it, there are no Natura 2000 ecological network areas. The closest Natura 2000 areas are: "The Skarżysko Forests" (PLH 26_01) and the "Kozienicka Mainstay" (PLB140013) Special Protection Area, which are located 20 km away.

In order to reduce and minimise any negative impacts of the undertaking on the natural environment in the course of its operation and in order to keep the ecological function and passability of the migration routes of animals present in the area through which the undertaking in question runs, passages for animals will be made. These passages will be appropriately managed by means of application of anti-glare panels, performance of a structure directing animals to the passages and planting of leading greenery. Moreover, in order to prevent animals from entering the road, protective fencing of grid will be made.

In the stage of operation of the investment the minimum 3-year monitoring of passages for animals will be conducted in the scope of, among other things, using such passages by individual species of animals, the results of which will be presented to the Regional Director for Environmental Protection in Warsaw each year.

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