

FINAL OPINION

(Number: 2303/13 - 3.4/ml)

issued by the Ministry of Environment of the Slovak Republic under Act No. 24/2006 Coll. on the Environmental Impact Assessment amending and supplementing other acts as amended

I. BASIC DATA ON THE PROPOSER

1. Name

Národná diaľničná spoločnosť, a.s.

2. Identification number

35 919 001

3. Registered Office

Mlynské Nivy 45, 821 09 Bratislava

II. BASIC DATA ON THE PROPOSED WORKS

1. Name

"Expressway R7, Bratislava Ketelec – Bratislava Prievoz"

2. Purpose

The purpose of constructing R7 in section Bratislava Ketelec – Bratislava Prievoz is to connect the highway D4 under preparation in section Bratislava, Jarovce – Ivanka pri Dunaji, north, up to the existing Prievoz interchange on highway D1 ensuring fluent and safe operation, which in terms of capacity will satisfy the requirements of traffic flow that will be efficient in terms of transport, operation and technologies, and which will be feasible and acceptable from viewpoint of the investments, impacts on the residents and environment as well as from the viewpoint of planned development of the affected municipalities of the Capital City of the Slovak Republic Bratislava.

3. User

User : general public

Administrator: Národná diaľničná spoločnosť, a.s.

4. Place of construction

Location of the relevant territory according to the territorial-administrative division of the Slovak Republic:

Upper-tier regional unit: Bratislava region, District: Bratislava II, City: Bratislava, Municipality: Bratislava – Ružinov, Bratislava – Podunajské Biskupice

Cadastral territory: Ružinov, Nivy, Podunajské Biskupice.

5. Date of commencement and termination

Anticipated date the construction will commence: 2016

Anticipated date the construction will be terminated: 2018

Termination of operation: no time limit

6. Brief description of technical and technological solution

Current status

The territory concerned is located in the southern sector of Bratislava City, on the left side of the Danube River. The territory is delineated in north by highway D1 (flyover interchange Prievoz) and in south by the planned route of highway D4 in the Lieskovec area. The terrain is flat with a slight slope in south-east direction, with an inconspicuous vertical fragmentation. The relative differences in height range from 0.5 - 1.5 m, they rarely reach 3 m. The centre of the territory is the the joint-stock company Slovnaft, which is bypassed by the variants in western and eastern border. The eastern boundary of the territory for the proposed variants is the existing built-up area of Podunajské Biskupice.

In the area between highway D1 and premises of Slovnaft there are diffused industrial and residential built-up areas. The residential area and garden area are located in particular along the ports on the Danube River. The area south of Slovnaft serves for the agricultural production, except for the gravel sand sites. The western boundary of the territory for the proposed variants is the left bank of the Danube River, which in its southern part serves as the nature and landscape protection (Protected Landscape Area Dunajské luhy, natural reserves Kopáčsky ostrov, Pánsky diel, Topoľové hony, Gajc, NATURA 2000 sites: Special Protection Area Dunajské luhy, proposed site of Community importance Biskupské luhy, Ramsar site Dunajské luhy, territories of system of ecological stability, gene pool sites).

At present the entire traffic is concentrated on the 1st class road running through the municipalities.

In the route of the proposed line structure expressway R7, Bratislava Ketelec – Bratislava Prievoz there is the anthropogenic burden arising from the residential areas (municipal type settlements) and agricultural use of natural resources affecting the individual elements of the environment.

Proposed construction and technical solution

The proposed variants are designed perspectively in the width layout R 24.5/120 (four lanes dual expressway), which is reflected in the technical design.

Table: Basic technical requirements of the individual variants

Variant	Width layout	Category	Proposed speed (km/hour)
Variant A1 – red	4-lane road	R24,5/120	120
Variant A2 – violet			
Variant B – blue			
Variant D – green			
Variant C2 – orange			

DESCRIPTION OF THE INDIVIDUAL PROPOSED VARIANTS

The sections begin at the point of the flyover interchange (FOI Prievoz) in the route of the existing highway D1.

The sections in variants A1, A2, B and D end in the proposed FOI Ketelec situated in two positions at the route of the proposed highway D4 in section Bratislava, Jarovce – Ivanka pri Dunaji, north.

The end of variant C2 section is situated in the position of FOI R7/I/63 of the connecting structure of expressway R7 in section Bratislava – Dunajská Lužná in variant C – (green).

Variant A1 – (red):

Total length of the route in variant A1 is 6.675 km.

The beginning of expressway R7 section in variant A1 is in the position of existing FOI Prievoz. In section from 0.8 km to 1.1 km the route runs in touch with the existing built-up area of Malé Pálenisko

(garden area), at point 1.3 km it crosses the Small Danube River by a bridge structure. In section 1.8 km to 4.2 km the route of variant A1 runs concurrently with the western boundary of the industrial zone of Slovnaft, a.s. The end section of variant A1 from 4.3 km to 6.7 km crosses the lands used for agricultural purposes.

Variant A2 – (violet):

Total length of the route in variant A2 is 6.949 km.

The beginning of expressway R7 section in variant A2 is in the position of existing FOI Prievoz. Approximately at spot 0.8 km variant A2 deviates from the route of variant A1 and bypasses the existing built-up area in Malé Pálenisko in a wider angle. After bridging the Small Danube River at 1.5 km the route of variant A2 reconnects to variant A1 route at 1.95 km and its subsequent routing copies variant A1 route up to the end of the section at proposed FOI Ketelec.

Variant B – (blue):

Total length of the route in variant B is 8.848 km.

The beginning of the route in variant B is in the position of existing FOI Prievoz. Unlike the previous variants A1 and A2, the route of variant B2 continues northwards from the existing industrial zone of Slovnaft, a.s. through the agricultural land up to 4.0 km of its route. At point 2.6 km it crosses the Small Danube River by a bridge structure. The section from 4.0 km to 6.3 km runs along the eastern boundary of industrial zone of Slovnaft, a.s. The final part of the section crosses the agricultural land where at point of 8.1 km it is connected to the route of variant A1 or variant A2 and by a bridge and at point of 8.775 km it is connected to the section of highway D4 under preparation.

Variant D – (green):

The total length of the variant D route is 7.729 km.

Variant D is designed similarly to variant B, i.e. north of Slovnaft, a.s., where after point of 3.5 km the route of variant D does not differ significantly from variant B. From point of 3.5 km the variant D route leads as variant B route along the eastern boundary of industrial zone of Slovnaft, a.s. At point 5.78 km the variant D deviates eastwards and crosses the agricultural land. In the final section at 7.2 to 7.3 km the route leads in the vicinity of the existing gravel and sand deposits and subsequently at 7.8 km in the point of the proposed FOI Ketelec it joins the route of highway D4 under preparation in section of Jarovce – Ivanka pri Dunaji, north.

Variant C2 – (orange):

The total length of the variant C2 route is 6.795 km.

Variant C2 connects variant D – (section of Ketelec – Prievoz) and variant C – (green) in section of Bratislava – Dunajská Lužná. At point of 4.5 km the new variant C2 deviates from the route of variant D in SE direction, crosses the agricultural lands and at point of 5.4 km it turns in eastern direction towards the existing road I/63, where it crosses the premises of the transformer station (VN 400 /110/22 kV). Subsequently it is connected through FOI R7/ I/63 to the reviewed variant C – (green) as a part of structure "Bratislava – Dunajská Lužná".

Table: Overview of the basic indicators of the proposed variants

Indicator	quant. units	Variant				
		A1 red	A2 violet	B blue	D green	C2 orange
Total length of route	km	6.675	6.949	8.848	7.729	6.795
Number of interchanges (flyover)	pc	1	1	1	2	2
Length of bridge structures on R7	km	0.693	0.510	0.701	0.696	0.866
Redundant topsoil	m ³	47,000	47,000	66,000	51,000	71,735.9
Reclamation of facilities	pc	64	24	38	34	35
Permanent land taking required (indicative)	ha	54.1	52.4	75.37	67.77	63.2
Of						
Agricultural land	ha	48.7	47.0	75.3	67.7	63.2

which	Forest lands	ha	5.4	5.4	0.07	0.07	0.0
	Noise barriers (walls)	m	4,500	4,615	7,660	7,920	10,265

Proposed interchanges

Based on the direction of the traffic in the territory under review and its greater surroundings the following FOIs are proposed:

FOI "Ketelec" (variant A1, variant A2, variant B)

It concerns a joint FOI for the aforementioned variants located at approx. 6.6 km (variant A1), approx. 6.9 km (variant A2), approx. 8.6 km (variant B). The proposed interchange will resolve the connection of expressway R7 to the planned route of highway D4 south of the Capital City of the Slovak Republic Bratislava. The geometric shape of the interchange is based on the traffic requirements and spatial conditions in the relevant territory.

Given the territorial limits, the boundaries of Natura 2000 sites and the planned construction works in the area (locations of Lieskovec, existing gravel mining area) the position and shape of the interchange Ketelec were optimised prior to preparation of the plan. In variant A1, A2, and/or variant B there occurred the shift in north-west direction from the boundary of NATURA 2000 sites by approx. 250 m.

FOI "Ketelec" (variant D)

It is designed as the delta shape crossing located at approx. 7.7 km point of the green variant route. The proposed interchange will resolve the connection of expressway R7 to the planned route of highway D4 south of the Capital City of the Slovak Republic Bratislava.

FOI "Slovnaft" (variant A1, variant A2, variant B, variant D)

It is a FOI located north of the premises of Slovnaft, a.s. in the beginning of the section under review at point of approx. 1.2 km (variant A1), approx. 0.9 km (variant A2), approx. 1.7 km (variant B), approx. 1.0 km (variant D). The proposed crossing will resolve the connection of expressway R7 to the existing Slovnaftská ulica.

FOI "Kazanská" (variant D)

It concerns interchange located at the route of the green variant (at point of approx. 3,5 km of the route). The geometric shape of the interchange is based on the traffic requirements and spatial conditions in the territory concerned.

Flyover interchange "FOI R7 / I/63" (variant C2)

It concerns the interchange located at the end section of orange variant green (at point of approx. 6.6 km of variant C2 route). The geometric shape of the interchange is based on the traffic requirements and spatial conditions in the territory.

Rest areas and maintenance centres at expressway

No rest areas and maintenance centres of the expressway are planned for the proposed route.

Placement of construction yards and dumping site

The location of the main construction yard has not been determined in the documentation and its determination is a part of the tender conditions for selection of the contractor. The construction yards are suggested to be placed in the point of FOIs, outside the protected NATURA 2000 sites, protected areas etc.

Placement of the dumping sites during the construction will be specified in detail based on the results of the detailed engineering and geological survey and will be dealt with at further level of the project documentation.

TECHNICAL PARAMETRES

Expressway R7 is designed as four-lane road, therefore all interchanges are flyover crossings. In addition to its load bearing function, R7 in all its variants resolves accessibility of the development area Pálenisko-Vlčie hrdlo. Therefore the technical solution deals also with the affected road system of streets Prístavná, Slovnaftská, Kazanská, which are modified in terms of capacity and supplemented with new interchanges.

The technical parameters of expressway R7 in the assigned category R 24.5/120 must comply with the valid standard STN 73 6101, interchanges must comply with STN 73 6102 and bridge structure must comply with STN 73 6201.

Technical solution of drainage system requires to:

- Protect watercourses, their basins, and all water facilities.
- Drain the rainwater from surface of the road outside the body of the road.
After the pre-treatment (sedimentation, immersion walls, biological treatment, etc.), reduce the amount of water draining into bodies of water through retention and infiltration over time.
- All sewer facilities will have outlets in the retention tanks with oil separators and sedimentation tanks prior to their discharge in the bodies of water given the fact that the route runs through PAW Žitný Island. The structure of the sewer ditches, shafts and all connections must be waterproof, their design will be proposed at further PD level.

Technical solution of bridge structures

The size and technical design of the bridge structures are subject to requirements for the proposed height of the routes to comply with STN 73 6201 and from the viewpoint of territorial limit requirements – foundation-related conditions, flood water levels, flyover crossings with the local roads and railways, perspective built-up areas.

The technical solution of traffic telematics

Given the proclaimed safety and hygienic zones of Slovnaft it will be necessary to install on R7 as well as on highways D1 and D4, as an induced investment, the warning system linked to emergency dispatching system of Slovnaft in addition to regular telematics focused on the traffic control. The objective is that in the case of an emergency situation any further damage to health and property is prevented and passage of rescue units is ensured on R7 by closing the section in the vicinity of Slovnaft. The range of the system should enable timely deviation of traffic from D1 and D4 outside R7 and deviation to D1 from D2 up to FOI Rovinka is considered.

III. DESCRIPTION OF THE COURSE OF ASSESSMENT

1. Preparation of the Assessment Report

The proposer Národná diaľničná spoločnosť, a.s., with its registered office at Mlynské Nivy 45, 821 09 Bratislava, submitted the Assessment Report to the Ministry of Environment SR under Act No. 24/2006 Coll. on Environmental Impact Assessment amending other acts (hereinafter the Act) concerning the proposed works "Expressway R7, Bratislava Ketelec – Bratislava Prievoz" in June 2013.

The proposed activities meet the criteria under Section 18, par. 1 of the Act and it is classified in category No. 13 in line with Annex No. 8 to the Act. Transport and telecommunications - item No. 1 Highways and expressways, including objects without any limit, and therefore it is subject to compulsory assessment under the Act.

The Assessment Report was prepared by EKOJET spol. s r.o., Staré Grunty 9A, Bratislava in May 2013, it was 138 pages long including the technical and map annexes.

2. Distribution and publication of the Assessment Report

The Ministry of Environment SR submitted the Assessment Report to all parties concerned so that they present their opinion under Section 33 of the Act.

The City Council of the Capital City of the Slovak Republic Bratislava and the affected municipalities Bratislava – Ružinov and Bratislava – Podunajské Biskupice (hereinafter the

municipalities concerned) under Section 34, par.1 of the Act they informed the general public about delivery of the Assessment Report and at the same time disclosed the generally comprehensible final overview for 30 days in the form of public notice on the official notice boards stating that the report can be inspected at the relevant Municipal Authority during the working hours on business days for 30 days from publication.

The municipalities concerned, namely Bratislava – Ružinov, Bratislava – Podunajské Biskupice published the notice within three business days from delivery of the Report and informed the general public on the deadline and manner for presenting their opinions on the document.

Publication of the generally comprehensible final summary in the municipalities concerned:
The City Council of the Capital City of the Slovak Republic Bratislava 28 June 2013
Bratislava – Ružinov municipality 1 July 2013
Bratislava – Podunajské Biskupice municipality 4 July 2013

3. Discussing the proposed works with the general public and conclusions of discussion

The City Council of the Capital City of the Slovak Republic Bratislava published the invitation for public discussion of the proposed works on the official notice board on 10 July 2013 and removed on the date the proposed works were discussed.

Under Section 34, par. 2, 3 and 5 of the Act the City Council of the Capital City of the Slovak Republic Bratislava and the municipalities concerned Bratislava – Ružinov and Bratislava – Podunajské Biskupice ensured public discussion on the proposed works upon agreement and in cooperation with the proposer.

The date, time and place of the public discussion concerning the Report on Environmental Impact Assessment relating to the proposed works was published by the City Council of the Capital City of the Slovak Republic Bratislava upon agreement with the municipalities concerned, namely Bratislava – Ružinov municipality, Bratislava – Podunajské Biskupice municipality at the usual place on the notice boards and websites of the municipalities concerned on 10 July 2013.

By its letter the City Council of the Capital City of the Slovak Republic Bratislava invited the competent authorities, ministries and authorities concerned for public discussion of the proposed works.

The proposed works on expressway R7, "Bratislava Ketelec – Bratislava Prievoz" was discussed under Section 34, par. 2 to 5 of the Act with the general public **in the form of public discussion** on 23 July 2013 in the Mirror Hall of Primaciálny Palace, Primaciálne nám. 1, Bratislava. The date, time and place of the public discussion concerning the Report on Environmental Impact Assessment relating to the proposed works was published by the City Council of the Capital City of the Slovak Republic Bratislava upon agreement with the municipalities concerned, namely Bratislava – Ružinov municipality, Bratislava – Podunajské Biskupice municipality at the usual place on the notice boards and websites of the municipalities concerned on 8 July 2013. In addition to the public at large, the representatives of the competent authority, permitting authority and affected authority were invited.

The minutes of the public discussion describe the course of discussion in the presence of general public totalling to 41 participants (according to the list of attendees).

Public discussion

1. The discussion moderator Ing. Stanislav Tokoš representing the municipality concerned and the proposer **welcomed** the participants in the public discussion and introduced his colleagues Mgr. Blažena Kožárová, Ing. Anna Holásková, Ing. Erika Čerňanská and Mgr. Ondrej Starinský of Národná diaľničná spoločnosť, a.s. (National Highway Company), Mlynské nivy 45, 821 09 Bratislava; Mgr. Tomáš Šembera and Mgr. Ľubomír Modrík representing EKOJET, s.r.o. Bratislava; he also welcomed PhDr. Alžbeta Ožvaldová – the Mayor of Bratislava – P. Biskupice municipality, Ing. Dušan Pekár – the Mayor of Bratislava – Ružinov municipality and Ing. Chomová representing NDS a.s. Bratislava, RNDr. Ľuboslava Garajová representing Ministry of Transport, Construction and Regional Development SR, a representative of the Ministry of Environment SR and Mr Berta representing the Bratislava Self-Governing Region (BSK).

2. **He summed up** the steps taken by the City Council of Bratislava and proposer - Ing. Tokoš read aloud the individual steps of the assessment process:

a/ Plan (No. 20-12) – received on 30 March 2012, the deadline for the opinion was 20 April 2012; the opinion was prepared by the city on 12 April 2012 and signed by the Mayor on 24 April 2012.

b/ Notice – the general public was informed about the plan on 3 April 2012 – available for inspection in the period from 3 April 2012 to 24 April 2012 (opportunity to make extracts, copies etc.) in the City Council's FRONT OFFICE.

c/ Letter of the Ministry of Environment SR No. 4864/12-3.4/ml dated 4 May 2012 (received on 9 May 2012) – invitation to discuss the scope of assessment on 15 May 2012 at 9 a.m. in room No. 03 at the Ministry of Environment SR, Hanulova 5/D (Mgr. Kožárová participated).

d/ Scope of assessment – received by letter No. 4864/3.4/ml dated 21 May 2012; informing the general public – on 31 May 2012 the general public was informed of the scope of assessment by a public notice, they have option to inspect, scrutinise, make excerpts, comment on the same by 10 June 2012.

e/ "Home" discussion concerning land-use planning related documentation (LUPD): EIA for expressway R7 FOI Prievoz/D1 – FOI Ketelec D/4 – 6 November 2012 to Land-use Planning Department (LPD) of the City Council

f/ The invitation to meeting concerning preparation of the Assessment Report - (letter from EKOJET dated 17 May 2013) – "Expressway R7 Bratislava Ketelec – Bratislava Prievoz") held on 30 May 2013 (Thursday) at 11 a.m. at DK Vesna in Podunajské Biskupice (participants representing the Capital City (HMB): Mikuš, Černochová, Mičková, Šmiralová, Tokoš)

g/ Assessment Report – received along with the letter from the Ministry of Environment SR No. 2303/13-3.4/ml dated 25 June 2013. The municipality's opinion should be prepared by 27 July 2013.

h/ The date of public discussion was dealt with by Ing. Tokoš (HMB) with Ing. Čerňanská (NDS) on 27-28 June 2013 (also Mgr. Šembera was informed on 28 June) – they agreed on the Mirror Hall of Primaciálny Palace at 4:30 p.m. on 23 June 2013.

h/ Notice of the Assessment Report and public discussion dated 28 June 2013

i/ Invitation to the public discussion (dated 4 July 2013) – sent by the assistant at LPD on 10 July 2013.

3. **Presentation of the Assessment Report** by the proposer – Ing. Anna Holásková representing NDS:

Ing. A. Holásková briefly described the individual steps in the environmental impact assessment process. Subsequently, based on the public procurement the LUPD will be elaborated and the preparation will continue in line with the Construction Act (i.e. Act No.

50/1976 Coll. on Land-Use Planning and Construction Rules, as amended). She further informed about preparation of the section of expressway R7 Bratislava – Dunajská Lužná, for which LUPD was prepared and at present the environmental portal includes the material "Changes in the proposed works under Act No. 24/2006 Coll.", which compares the changes to the technical solution in LUPD and in EIA process. The general public can read the material and send the comments to the Ministry of Environment SR. The following section of expressway R7 Dunajská Lužná – Holice is in the stage of land-use decision being issued and also for this section the environmental portal includes the material "Changes in the proposed works under Act No. 24/2006 Coll.", which compares the changes to the technical solution in LUPD and in EIA process. The general public can read the material and send the comments to the Ministry of Environment SR.

4. *Presentation of the Report by the author* – Mgr. Tomáš Šembera representing EKOJET s.r.o. Bratislava:

Mgr. Tomáš Šembera presented the following areas:

- Purpose – reasoning (from the aspect of traffic) – the advantage of this section is in particular unloading the urban areas of the municipalities, i.e. the load will be moved outside the built-up area.
- Project history – he listed all individual phases from making the plan through assessment to preparation of the Assessment Report and stated that the environmental impact assessment (EIA) represents the pre-investment preparation.
- The Assessment Report was elaborated based on the scope of assessment (i.e. "assignment") where a new variant C2 had to be analysed.
- Presenting and commenting on the summary of the traffic routes – highway D4, expressway R7, highway D1 and certain other roads in the territory under review. The basic variants include A1 – red and A2 – violet, other variants run east of Slovnaft.
- Presentation – summary of the basic indicators of the individual variants – routes; the length of the routes ranges from 6.6 km to 8.8 km, e.g. the anticipated number of facilities/buildings to be reclaimed ranges from 24 to 64, noise control measures – e.g. in variant C2 the noise barrier is 10.2 km long (these data come from the Assessment Report).
- Extract from LUPD (binding) – valid 2007 LUP of the city (as amended by ZaD) includes western routing; LUP was approved by the SEA process (under Act No. 127/1994 Coll. on Environmental Impact Assessment).
- Protection of NATURA 2000 sites – the noise barrier and wildlife crossing are planned close to the western edge touching the NATURA 2000 site.
- Hydraulic curtain - Mgr. Šembera explained how it works - by pumping the groundwater in wells/boreholes depression level of the water is created and oil substances (OS) do not leak into the surrounding area and do not contaminate groundwater of Žitný Island. By implementing the green, blue and yellow variants (east of Slovnaft) the curtain would be disrupted.
- Prevention of the major industrial accidents (PMIA) – explosion caused by OS in the premises of Slovnaft represents real threat. Protective zone of Slovnaft – variants A1 and A2 are further from the explosive operations.
- Variant C2 – RH determined its more detailed elaboration – it connects to the green variant R7 in the direction out of the city. Variant A2 – violet – FOI north of Slovnaft – intervention in the residential area, Ing. Hlášek (traffic expert) added he will supplement it.
- NATURA 2000 (table) – for example European fire-bellied toad (frog) and common vole – moderate impact is anticipated, white-tailed eagle, greylag goose – moderate impact is anticipated

The route runs outside the site – impact of noise and light from the vehicles. Variant A1 and A2 – routing will not have significant impact on these sites.

- Hydraulic curtain – other variants collide with the curtain; Slovnaft presented negative position.
- The EIA process includes also unreal variants in order to make mutual comparison.
- PMIA – radius of thermal and pressure impacts (var. A1, A2 are more acceptable), var. B, D and C2 are risky, i.e. even the social risk is high.
- Presentation of multi-criteria assessment table – comparison of variants: 22 various criteria were selected and the conclusion was made on the basis of comparing them – inclination towards variants A1, A2.
- **Final assessment – variants B, D and C2 are unacceptable, the most optimal variant is A2.**

5. *Discussion* – Ing. Tokoš initiated the discussion and requested that the participants in the discussion introduce themselves for the purpose of recording the course of the discussion on electronic carrier and easier preparation of the minutes in writing.

Question 1 – Mr Círi (Ružinov) – he requested showing the picture depicting garden area (M. Pálenisko), he stated that the gardeners were not addressed in this phase, subsequently he asked about the roads – permitting structures and/or ban on building the recreational facilities. response provided by Ing. Tokoš – he explained the principle of delineating protective hygienic zone (PHZ) around Slovnaft (i.e. merger of hygienic and safety zone), these zones were delineated in 1979 (former OÚPA NVB, responsible person: Mr Hauskrecht), update in Podunajské Biskupice municipality was made in electronic form by Ing. Mária Krumplová, but when drafting the changes and amendments to the city's land-use plan (ZaD 02 ÚPN) it was determined that the electronic delineation is moved in the direction away from the fence of Slovnaft, which causes problems, including the issue of disapproval to construct recreational facilities, for example by the Construction Authority of Ružinov municipality. Gardeners and general public were addressed by the public discussion concerning expressway R7 Bratislava Ketelec – Bratislava Prievoz and the invitation was published on the website of the City Council of Bratislava. The gardeners will be addressed especially in the land-use procedure (i.e. later).

Question 2 – PhDr. Alžbeta Ožvaldová (the Mayor of Podunajské Biskupice municipality) – she first thanked for the public discussion, stated she fought for the red variant in the past (compliant with LUP of the city), variant C2 surprises her, mentioned her correspondence with the ministers – in 2010 with Mr Figel', in 2012 with Mr Počiatek – they support the red variant of routing expressway R7 (compliant also with LUP-D BSR). She emphasised that for Podunajské Biskupice municipality both variants A1 and A2 are acceptable, she favours variant A2, but in the case that Ružinov municipality prefers variant A1 – she will accept it and make an agreement.

She added that her office received the letter from the Ministry of Environment SR – change in the interchange Ketelec, she asked for explanation.

Ing. Milan Luciak (Ministry of Environment SR, EIA Department) – first of all he stated that the report assessed all variants (as required by the entrepreneurs and other entities), in the assessment process the non-feasible variants will be excluded. The changes in the proposed works under Section 18 of the Act on EIA are now published on www.enviroportal.sk and related to the connecting structure: R7 Bratislava – Dunajská Lužná, it is a different process/structure

Question 3 – Ms Mária Mociková (Ružinov resident) – she is concerned about the routes of variants A1 and A2, and she asked: when is the reclamation of the facilities expected?

response provided by Ing. Chomová (NDS) – she stated that EIA was being performed, the process will be completed by the Final Position to be issued by the Ministry of Environment SR. In the LUPD phase the facilities for reclamation will be specified. She estimated that this could be carried out in 1.5 – 2 years at the latest; i.e. purchase of immovable property after issue of the LUP decision in 1.5 – 2 years. She asked Ms Mociková whether it concerns a building of permanent residence, which is very important aspect (subsequently, residents can live in such building for 12-18 months). It must be also the matter of financial preparedness for the construction etc.

Question 4 – Mr Peter Bobula (Podunajské Biskupice) – he made a remark that he wishes that the expressway is completed when he is still alive.

reaction of Ing. Tokoš - there is nothing else to say, as it is a matter of financial resources.

Question 5 – Ing. Hlásek (designer, Brno) – he said he is the author of the Technical Study concerning the route of R7, then he explained to the participants some of his views on the matter of the transport system in a wider context.

6. Conclusion - Ing. Tokoš thanked the participants for their active participation in the public discussion reminded the option to comment on the Report by 27 July 2013.

The Capital City Bratislava in cooperation with the proposer Národná diaľničná spoločnosť, a.s. prepared under Section 34, par. 4 of the Act the minutes of the public discussion concerning the activities, which was delivered within 10 business days from the public discussion delivered to the Ministry of Environment SR, EIA Department. The minutes of the public discussion were accompanied by the list of attendees, audio recording (CD carrier) and statement of Podunajské Biskupice municipality, Alžbeta Ožvaldová, the Mayor.

The full minutes of the public discussion together with the list of attendees are available with the proposer and the Ministry of Environment SR, where it forms a part of the archived documentation from the assessment process.

4. Opinions, comments and expert appraisals on the Assessment Report

Under Section 35, par. 1 the following written opinions of the parties concerned were delivered to the Ministry of Environment SR:

Ministry of Transport, Construction and Regional Development, Section of Road Transport, Roads and Investment Projects, Department of Roads (letter No. 19906/2013-SCDPK/z.45275 dated 16 July 2013)

Based on the EIA results the Ministry of Transport SR recommends constructing variant A2 (violet).

Ministry of Agriculture and Rural Development of the Slovak Republic, Dobrovičova 12, 812 66 Bratislava, Section of Forestry and Wood Processing (letter No. 3413/2013-720 dated 16 July 2013)

It follows from the content of the Assessment Report that the author of the material failed to include the opinion of the Section of Forestry and Wood Processing issued on the matter in question (the plan) under No. 2125/2012-720 on 4 June 2012 .

Therefore we request that the following conditions should be included in the subsequent documents and in the terms and conditions of the final opinion on the proposed works:

- minimise the permanent and temporary taking of the forest lands, place the construction yards and material and waste dumps so that the area of other lands or lands carved out from the forest or agricultural lands are used to the maximum extent possible.
- Set out the conditions in the project documentation stating that the deforestation is not performed to full required width of the protective zone along the route of the selected

variant running through a forest or its periphery, but taking into consideration the age and stability of the forests and forest lands in line with Section 5 of Act No. 326/2005 Coll. on Forests, as amended, to minimise the width of deforestation. To discuss and agree on the scope of such activities with the competent State Forest Management Authority.

- After their reclamation the temporarily carved out forest lands will fulfil the original forest function.
- Reclaim the temporarily carved out forest lands in line with Act No. 138/2010 Coll. on the Forest Reproduction Material, as amended and not under the plan of growing plants.
- Deal with the substitute greenery or other compensation measures due to intervention in the habitats or other components of the environment so that the "measures" are not placed on or designed for the existing forest lands.
- Based on the experience and particularly due to problems resulting from encounters of "R1 Pribina" road users with wild animals we request taking such measures in the route of the expressway R7 section which will ensure reduction of such risk to a minimal extent.

Since variant A2 (violet) is recommended for implementation based on the multi-criteria assessment of the proposed works, which variant is scrutinised in the land use planning documentation with regard to taking of the forest lands, on which the competent State Forest Management Authority made the statement, we have no objections to constructing the proposed works in the route of the recommended variant.

Ministry of Agriculture and Rural Development of the Slovak Republic, Dobrovičova 12, 812 66 Bratislava, Section of Legislation (letter No. 3382/2012-430 dated 10 July 2013)

It is beyond doubt that from the aspect of the agricultural land protection the most advantageous route of R7 in the section concerned is violet variant A2 (partially common route as in red variant A1). Its total length is 6.949 km and it requires taking of the smallest acreage of the agricultural land. Due to the fact that there are the agricultural lands in the section to be taken under Act on Land Protection it requests the following:

- a. Reduce the acreage of the temporarily taken land so that the line handling areas are located in the permanently taken lands and so that the construction site facilities, storage areas and other structure-related facilities are located in the non-agricultural lands as an alternative (in this case the obligation of dealing with such alternative areas follows directly from the Act on Land Protection).
- b. Propose alternative solutions of the access roads to the structure of R7 on the existing roads (in order to reduce the acreage of temporarily taken lands) and thus ensure that no new access roads to the proposed section of R7 structure are built and that the local road network is used to the greatest extent possible.

The Ministry of Environment of the Slovak Republic, Section of Geology and Natural Resources, Department of State Geological Administration, (No. 37032/2013, dated 15 July 2013)

It presents the following comments on the chapters related to the geological issues:

1. In chap. A.II.4. (Location) the numbers of the cadastral territories and/or land plot numbers are absent.
2. Chap. A.II.8. (Brief description of the technical and technological solution) is restricted only to the characteristics of routing the sections in the terrain without more detailed description of the number of proposed bridges and the anticipated method of building them in the individual proposed routes. There is no brief description of the embankment sections (min. and max. height) in the individual routes and the sections of routes proposed in the terrain and/or landscape. The aforementioned data are included in the Technical Study and their brief overview (in the form of a table) should be inserted in the said chapter. Technical

solution of the structure is essential for assessment of the anticipated impacts on the surrounding rock and ground water and for draft measures.

3. In chap. C.II.2.2. (Geodynamic phenomena) the standard STN 73 0036 is quoted, which is invalid at present and replaced by new standard STN EN 1998-1, Part 1:General rules, seismic actions and rules for buildings and Amendments 1 and 2 – STN EN 1998-1/NA/Z1 and STN EN 1998-1/NA/Z2. Currently instead of the scale MSK-64 the scale EMS-98 is used for the evaluation of macroseismic intensity in the territory. We recommend updating the data on the seismicity of the territory. The tectonic movements are specified in relation to geodynamic phenomena in the territory concerned in the chapter. The characteristics are absent.

4. Chap. C.II.15.2.1. (Environmental burdens) recommends updating and specifying according to the Information system of environmental burdens, which sets out 37 environmental burdens located in the territory of Bratislava II district. A, B and C with exact description and localisation.

5. In chap. C.II.17.1. (Vulnerability of the surrounding rock) there is no warning that vulnerability of the surrounding rock can rise if the subsoil of embankments includes fluvial sediments with soft, organic soils that are compressible and little load bearing only. Similar impact will also arise from building the bridge structures at places where little load bearing soil occur.

6. In chap. C.II.3.1. (Vulnerability of ground water) the following is stated: "... and areas of cuttings, if any...", but it is not clear from the text of the plan whether the cutting sections are proposed, their routes and depths.

7. In C.III.5.2. (Impacts on groundwater) it is necessary to add that even though the body of the proposed work runs above the groundwater level, in the case the bridges in areas with elevated groundwater are established, the structure can get in contact with groundwater.

8. In chap. C.IV.2. (Technical measures) it is necessary to add the following text in the sub-chapter "Surrounding rock" that engineering geological survey must be conducted in accordance with applicable technical regulations for construction of expressway. During the construction it is necessary to ensure the geological (and/or geo-technical supervision). Another technical measure depending on the identified engineering and geological and hydro-geological conditions is to ensure the hydro-geological and geo-technical (at high embankments) monitoring of selected sections of the building.

9. In chap. C.V.3. (Reasoning proposal of the optimal variant) the studies listed on p. 123 do not include the Technical Study, a part of which is the Engineering and Geological Study. The studies provide the important information for assessing the variants of expressway R7.

10. In chap. C.VI.1. (Program of monitoring ...) we request that depending on the results of the engineering and geological survey the monitoring of groundwater levels and/or geo-technical monitoring was proposed for the selected route.

11. In chap. C.VII. and C.IX. the Technical Study is quoted: "R7 Bratislava Ketelec – Bratislava Prievoz", (SHP, s.r.o. Brno, PK OSSENDORF s.r.o., Brno, 2012, 2013). The Technical Study and/or selected chapters should be a part of Annexes or a separate chapter of the presented Report since it provides important basic information about the technical solutions of the proposed works and includes assessment of engineering geological and hydrological conditions of the territory necessary for the assessment of the impacts of the structure on the environmental components and proposed measures to eliminate the anticipated impacts.

The Ministry of Environment of the Slovak Republic, Section of Nature Protection and Landscape Creation, Department of State Administration, (No. 6377/2013, dated 22 July 2013)

Given the fact that routing of R7 will touch the protected areas, several mitigating measures must be implemented as proposed by the Assessment Report (e.g. placement of the wildlife crossing and its parameters).

The Assessment Report specifies another fact, namely that the structure of expressway R7 Bratislava Ketelec - Bratislava Prievoz will result in only moderate negative impact on the white-tailed eagle and geese. The section of expressway R7 Ketelec – Prievoz is directly connected to the section of Ketelec- Dunajská Lužná, which passes directly through foraging and resting habitats of geese, in respect of which we anticipate greater impact provided that implications of the proposed structure should constitute a fundamental, and/or more considerable impact on the object of protection in the protected areas when compared to the section. Given the facts above we request and advise in advance **that the impact should be sufficiently assessed and all mitigating measures proposed.**

The State Administration Department considers variants B, D or C to be more suitable from the aspect of the nature and landscape protection. However, the Assessment Report assesses and proves in detail, why the routing variants above are not suitable, therefore it provides **consent to construction of variant A2.**

Ministry of Environment SR, Water Section, (letter No. 3552/2013-6.1, dated 19 July 2013)

It provides the following opinion on the Assessment Report:

The territory under review lies in the protected water area Žitný Island under Government Decree SSR No. 46/1978 Coll. the protected area of natural accumulation of water on Žitný Island, as amended, which with its natural conditions constitutes an important natural accumulation of groundwater and surface water. Based on the elaborated risk analysis "Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of Slovnaft, a.s." assessing the impact of the expressway construction on the hydraulic groundwater protection of Slovnaft, a.s., the Water Section agrees with the selected variant of the route, i.e. A2 variant as the only environmentally appropriate solution.

Civil Aviation Authority of the Slovak Republic, Letisko M. R. Štefánika, Bratislava, (letter No. 08805/2013/ROP-002-P/11575, dated 11 July 2013)

Since the structure under review is located in the protective zones of M. R. Štefánik Airport Bratislava and radar protective zones for the terminal control area of M.R. Štefánik Airport, Bratislava TAR LZIB (sector A), Civil Aviation Authority of the Slovak Republic requires submitting the binding opinion for the structure in question in order to eliminate the collisions of the individual structures with heights and limits of the determined protective zones, and/or for the reasons of setting the conditions for the construction of the structure.

Bratislava Self-Governing Region, (letter No. 8443/2013 dated 9 July 2013)

After acquainting with the documentation the Bratislava Self-Governing Region informs that it has no objections to the Assessment Report. Within its powers the Transport Department considers both variants A1 and A2 to be suitable.

Regional Public Health Authority in the Capital City of Bratislava, with its registered office in Bratislava, (letter No. HŽP/11269/2013, dated 2 July 2013)

It issues the binding opinion and from the viewpoint of public health protection it agrees with the Assessment Report. All variants are acceptable subject to ensuring the noise barrier for the adjacent residential area. In order to minimize the contact with the residential and other protected areas we prefer the variant with the western bypass of Slovnaft (A1, A2).

Fire and Rescue Department of the Capital City of the Slovak Republic Bratislava, letter No. (KRHZ-BA-HZUB6-2078/2013-001, dated 9 July 2013)

Fire and Rescue Department of the Capital City of the Slovak Republic Bratislava does not assert any objections, since there are no facilities administered by Fire and Rescue Department in the territory.

District Mining Office in Bratislava, Bratislava (letter No. 654-1711/2013 dated 09 July 2013)
In has no objections or comments concerning the presented Assessment Report.

District Office for Road Transport and Roads in Bratislava, Department of Road Traffic and Roads having territorial jurisdiction in the Capital City of the Slovak Republic Bratislava (letter No. B/2013/07967/LBO, dated 11 July 2013)

In has no additional requirements concerning the presented Assessment Report.

District Land Office Bratislava, (letter No. 1008/174/2013)

It has no objections. It is necessary to observe the principles of soil land fund protection.

District Office Bratislava, Department of Construction and Housing Policy (letter No. A/2013/1722/KOL)

It acknowledged the report and published the information.

Environmental District Office Bratislava, Department of Nature Protection, Selected Components of the Environment and Appeal Proceedings of the Region, Bratislava, (letter No. ZPO/5784/2013, dated 29 July 2013)

It recommends variant A. It requires to bring changes in the protective zones of premises of Slovnaft in line with the LUP of the Bratislava City.

Environmental District Office Bratislava, Department of Statement Administration of Environmental Care, Bratislava, (letter No. rEIA/2013/4679ANJ/BAII, data 23 July 2013)

Waste Management Department

It has no objections to the Assessment Report from the viewpoint of waste management.

Under Section 6 of Act No. 223/2001 Coll. on Wastes the contractor of the structure as the waste producer is obliged to prepare the waste management program and submit it to the local Office for approval.

Air Protection Department

Emissions will mainly depend on the intensity and fluency of traffic. Air pollution due to traffic has a negative impact on the overall state of the environment. Based on the results of the Emissions Study (Inžinierske služby, s.r.o., 2012, 2013) it is possible to state that after launching the proposed works into operation for the outlook period of 2015, 2025, 2035, given the estimated intensities of the traffic in all proposed variants, the maximum permissible concentrations of harmful substances in the residential areas with a permanent population will not be exceeded under the applicable legislation. It has no objections from the viewpoint of air protection.

Major Industrial Accidents Prevention Department

From the aspect of preventing the major industrial accidents it agrees with issuing the affirmative opinion only with regard to variant A1 or variant A2 subject to the following conditions:

1) during the construction of expressway R7 the protection measures will be implemented prior to launching the road into operation in the form of resistant protection wall (enhance resistance to overpressure at minimum 7 kPa and thermal throw at minimum 7 kW.m⁻²) and constructing the blockage system connected to the warning system of Slovnaft, a.s. and at the same time it should not result in the undesirable collision traffic situation by warning signals after it is launched into operation.

State Water Management Authority

In all its variants the proposed structure is located in a very vulnerable environment from the viewpoint of ground water and surface water protection. Construction and use of the proposed structure will increase the endangerment and vulnerability of groundwater and surface water by potential contamination resulting mainly from crossing sections or road approaching to

watercourses and areas of potential cuttings and construction of artificial barriers. At the beginning of R7 the waters from the surface roadside ditch will be discharged through the channels with oil separators to the Small Danube River, at the section crossing protected water area Žitný Island the retention tanks and rainwater sedimentation tanks will be installed and equipped with oil separator (OS). Purified water from surface drainage will be discharged to the infiltration ditches. Surface waters from the slopes of the structure will be soaked by the soil.

According to the local office's opinion No. ZPS/2012/3015/SVE II. dated 11 April 2012 it is necessary to ensure comprehensive protection of surface and groundwater in a protected water area, and in case of the variants B and D are constructed it is necessary to resolve collision of the structure with hydraulic curtain of Slovnaft, a.s., since dysfunction of an eastern part of the hydraulic groundwater protection will result in leakage of free and dissolved oil substances from beneath Slovnaft and subsequently they would be transported to PWA Žitný Island given the general direction of groundwater flow in the west - east direction. The Assessment Report recommends constructing variant A1 and A2, while variants B, C2 and D are assessed as unacceptable. The local office agrees with constructing variant A1 or A2.

Subject to fulfilment of the conditions above the local office assumes the the work "Expressway R7, Bratislava Ketelec – Bratislava Prievoz" will not cause contamination of the ground and surface waters and it has no objections to the submitted report.

Department of Nature and Landscape Protection

Based on the multi-criteria assessment in the Report it considers variant A2 to be an optimal route, which is slightly preferred to the route of variant A1. The remaining variants are mutually comparable and ranked 3rd (var. D), or 4th (var. B).

According to the Report the variants B, D and C 2 are unacceptable due to collision /interference with the hydraulic curtain of Slovnaft, a. s. and due to radius of impacts of major industrial accidents.

Environmental District Office Bratislava, Department of Statement Administration of Nature and Landscape Protection, as the authority concerned under Section 23, par. 4 of Act No. 24/2006 Coll. on Environmental Impact Assessment amending other acts, under Section 9, par. 2 of Act on Nature and Landscape Protection (NLP) provide the following opinion on the presented Report:

In its statement concerning the plan of expressway R7 BA Ketelec – BA Prievoz the local office stated that the results of the Emissions and Noise Study focused on assessment of the situation with regard to the built-up area, the impacts of emissions and noise on the animals and vegetation are not sufficiently considered, since animals are usually much more sensitive to auditory and optical perceptions, and the traffic emissions can have material adverse effects on the ecological balance of forests, in particularly when considering the high traffic volume as reported in the plan (in var. A1 in 2015 both ways 30,930 vehicles in 24 hours, in 2035 up to 49 110 vehicles in 24 hours, in var. A2 the anticipated numbers are: 30,740 in 2015 and 47,930 vehicles in 24 hours in 2035). This comment is not included in the overview of comments to the plan (in part III, art. 1.4 of the Report) and the author failed to deal with this issue.

According to the table of assessing the comments to EIA in part C III, art. 1.4 the compensation measures concerning the interference with the habitats of the Community importance are set out in part C/chap. IV/7, however, chapter IV does not contain item 7.

Under Section 28 of NLP Act, if based on the results of the impact assessment under special legal regulations it is necessary to perform measures required to compensate adverse effects of the plan or project on integrity of the territory or system of protected areas, the proposer must apply for consent of the Ministry to the manner and condition of performing the measures. In the comparable extent the compensation measures must be focused on the affected habitats of the

Community importance and species of Community importance and ensure the functions comparable to functions of the territory affected by the plan or project in order to ensure preserving overall coherence of the European system of protected areas.

From the aspect of assessing potential cumulative impact that can be anticipated for the relevant territory, the district nature protection authority considers the conclusion in the Report to be insufficient, which states that given the distance between the structures planned in the vicinity of the structure under review their impacts do not overlap or create mutual synergy.

From the viewpoint of protection of interests, protected by NLP Act, the district nature protection authority considers the routing in variants C2 and D to be the most appropriate. Their routes do not interfere with the habitat of Community importance Ls 1.2 and out of all proposed variants they are located in the greatest distance from the territory of the national and Community system of protected areas declared to protect the habitats of Community and national importance and habitats of species of Community and national importance as well as habitats of birds including the migratory species.

In order to minimise the negative impacts of construction and operation of activities on the nature and landscape (in particular in the case the route of variant A1 or A2 is selected), it is necessary to adopt measures proposed in the Report thoroughly, i.e. in addition to appropriate technical measures (noise barriers, wildlife crossings, fencing in the migration routes) perform reclamation of temporarily taken lands, measures against pollution of surface and groundwater at the time of construction, use mild or inert spreading materials during the operation, eliminate the adverse effects of accidents based on the emergency plans, integrate the structure into the landscape by growing vegetation and landscaping, monitor the generated waste for the presence of harmful substances, put oil catcher in the sections crossing watercourses and comply with safety regulations when handling oil substances. Based on the monitoring to implement further measures if necessary. As the basis for granting the consent to felling the trees it is necessary to prepare the dendrological survey and focus on the functions of the trees of the habitat of protected species, minimise felling to a maximum possible extent and perform felling in the non-nesting period. The preserved trees must be protected from damage in line with Section 47, par. 1 and par. 2 on NLP Act and measures under STN 83 7010 Nature Protection – tree care and tree protection. It is necessary to propose locations of substitute planting and to use the original tree species for planting.

Final summary: From the viewpoint of nature protection the District Environmental Office in Bratislava, the Waste Management and Air Protection Section has no objections to the Assessment Report. It requests that the following should be taken into consideration in preparing the final opinion based on the assessment of the proposed works and in determining the conditions for performing the works:

The State Water Administration Authority agrees with constructing variants A1 or A2 (variants B,C2 and D are unacceptable) subject to fulfilment of the condition of ensuring versatile protection of surface and groundwater in protected water management area.

The Major Industrial Accident Prevention Office agrees with constructing variant A1 or variant A2 under the condition that during the construction of expressway R7 the protection measures will be implemented prior to launching the road into operation in the form of resistant protection wall (enhance resistance to overpressure at minimum 7 kPa and thermal flow at minimum 7 kW.m²) and constructing the blockage system connected to the warning system of Slovnaft, a.s. and at the same time it should not result in the undesirable collision traffic situation by warning signals after it is launched into operation.

Fully respect and consider the opinion of the nature and landscape protection authority, which, in addition to certain objections and recommendations, stated in particular that from the viewpoint of protection of interests, protected by NLP Act, the district nature protection authority considers the routing in variants C2 and D to be the most appropriate. In order to

minimise the negative impacts of construction and operation of activities on the nature and landscape (in particular in the case the route of variant A1 or A2 is selected), it is necessary to adopt measures proposed in the Report thoroughly, i.e. in addition to appropriate technical measures (noise barriers, wildlife crossings, fencing in the migration routes) perform reclamation of temporarily taken lands, measures against pollution of surface and groundwater at the time of construction, use mild or inert spreading materials during the operation, eliminate the adverse effects of accidents based on the emergency plans, integrate the structure into the landscape by growing vegetation and landscaping, monitor the generated waste for the presence of harmful substances, put oil catcher in the sections crossing watercourses and comply with safety regulations when handling oil substances. Based on the monitoring to implement further measures if necessary. As the basis for granting the consent to felling the trees it is necessary to prepare the dendrological survey and focus on the functions of the trees of the habitat of protected species, minimise felling to a maximum possible extent and perform felling in the non-nesting period. The preserved trees must be protected from damage in line with Section 47, par. 1 and par. 2 on NLP Act and measures under STN 83 7010 Nature Protection – tree care and tree protection. It is necessary to propose locations of substitute planting and to use the original tree species for planting.

State Nature Protection Office SR, Banská Bystrica (letter No. ŠOP SR/2480/2013)

Under opinion No. ŠOP SR/1192/2012 we consider the variants B,D or C2 to be most suitable from the viewpoint nature protection.

In the case variants A1 or A2 are selected, the intervention in SCI Biskupské luhy need to be compensated

– for taking the habitat of Community importance, namely floodplain oak - elm - ash forests around lowland rivers (91FO), the real or potential habitat of the same type with comparable acreage to be incorporated in SCI

– implement mitigating measures specified in the Assessment Report – wildlife crossing and noise barrier. We further recommend assessing impact of R7 on NATURA 2000 sites under Art. 6.3 of the Habitat Directive.

The Capital City of the Slovak Republic Bratislava, (letter No. MAGS OUP-50079/13-300097 dated 24 July 2013)

Land-Use Planning Department

Agrees with the selected optimal variant A2.

Traffic Planning Department

Fully agrees with variant A2.

Department of Technical Infrastructure Department

Variant C2, which requires reclamation of the existing superior transformer station 400/110/22 kV Podunajské Biskupice, is not in line LUP of the city and given the nature of the station is little feasible.

Department of selected elements of the environment and specific factors.

It has no objections to the report. In further procedure it requires specifying precise input parameters for calculation of noise.

Conclusion

It recommends variant A2 or variant A1.

Bratislava – Ružinov municipality (letter No. ŽP/CS 15529/2/2013/PAG, dated 17 July 2013)

Opinion from the viewpoint of the static traffic:

It agrees with the result of the final summary, namely with variant A2.

Opinion from the viewpoint of the environment:

It agrees with constructing variant A2 subject to the following conditions:

- Protect the trees in the vicinity of the structure during both construction and operation in line with STN 83 7010 Protection of Trees.
- Minimize standing and passing of vehicles on vegetation area and under the trees.
- After completion of the structure to renew the vegetation area even on the adjacent land plots, which are affected by the construction works.
- Implement the measures specified in the Assessment Report, Impact on Animals – fencing and wildlife crossing.
- Felling of trees can be performed based on the legally effective consent of the nature protection authority.

Bratislava-Ružinov municipality states that the proposed works are in line with the valid of the Land-Use Plan of the Capital City Bratislava in variants A1 and A2.

Bratislava – Podunajské Biskupice municipality, (letter No. SÚ/420/7180/13/Bo, dated 9.7.2013)

The municipality supports the route of expressway R7 in variant A2, which was selected as recommended. If necessary, the municipality will support the route of variant A1, if the affected Bratislava – Ružinov municipality will consider this variant more suitable.

The municipality strongly disagrees with variants of R7 routes: B, D and C2.

Other significant opinions, comments and expert appraisals

The general public delivered the following opinions on the Assessment Report concerning the proposed works "Expressway R7, Bratislava Ketelec – Bratislava Prievoz" to the Ministry of Environment SR within the time limit under Section 35 of the Act:

"Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of Slovnaft, a.s." was prepared for the proposed works which assessed the risks of the representative accident scenarios from companies operating in the area of Slovnaft, a.s.

The objective of the expert opinion was to:

- a) Analyse and assess the potential safety aspects and risks of construction and operation of the variant-based structure of expressway R7 in section Bratislava Ketelec – Bratislava – Prievoz in connection to the existing and anticipated external risks of operation of the petrochemical complex Slovnaft, a.s.
- b) Review and assess the interactions, if any, associated with development of the specific emergency scenarios resulting from construction and operation of structure R7 in the territory under review on the premises of Slovnaft, a.s.

The subject matter of the expert opinion was to find and justify the optimal and/or socially acceptable variant of expressway R7 regarding the safety aspects and risks of this area and the risky technology in the premises of Slovnaft, a.s. It follows from the expert appraisal of the safety aspects and risks of the area that the decisive for all proposed variants of structure R7 is only the section of the route leading in the vicinity of the eastern or western edge of the area of Slovnaft, a.s.

Based on the results of the expert opinion the following was stated:

- In the western or north-western part of Slovnaft, a.s. there are no such production or storage facilities exposed to risks under emergency scenarios resulting in significant risk for the structure and its surroundings and operation of expressway R7 in variants A1, A2.
- The proposed routing of variants B, D and C2 of expressway R7 along or concurrently with the eastern border of Slovnaft, a.s. would in terms of the Act on Prevention of Major Industrial Accidents result beyond doubt in increased overall social risk of the enterprise, which cannot be accepted even if considering the social and public interests, since both enterprises are classified in cat. B of the enterprises under the Act on Prevention of Major

Industrial Accidents, and moreover their current total (summary) value of the social risk is well beyond the socially acceptable limits.

- From the aspect of pressure effects, the "borders" of the surrounding area is more important for variants A1 and A2 rather than for variants B, C2 and D. Routing of R7 in variants B, C2 and D is such that VCE (Vapour Cloud Explosion) emergency scenario, e.g. storage units SKP1 and SKP2 causing shock (pressure) wave would present a direct threat for the proposed structure (variant B, D and C2). The relevant space between the edge of Slovnaft, a.s. and planned routes of variants B, C2 and D of structure R7 is composed of in particular the agricultural lands and/or small – simple structures.
- The space between the production units/ warehouses and proposed variants A1 and A2 the expressway R7 is occupied by the continuous industrial structures, which forms an important barrier from the aspect of pressure wave spreading and this "barrier-full" space would clearly result in significant reduction in pressure effects on the route of variants A1 (A2).
- The range of the considerable thermal and pressure effects when R7 is routed along the western part of the premises of Slovnaft, a.s. are lower and less probable from the aspect of socially unacceptable consequences unlike the route of variants B, C2 and D.

SLOVNAFT, a. s., Vlčie hrdlo 1, 824 12 Bratislava, (letter No. 62340/2013/709, dated 30 May 2013)

SLOVNAFT, a.s., concerning expert appraisal delivered by RISK CONSULT, s.r.o. entitled "Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of Slovnaft, a.s."

All proposed variants A1, A2, C2, B and D are routed so that they run through the defined protected zones of SLOVNAFT, a.s. SLOVNAFT, a.s. uses the assessment of the accident scenarios and their impacts defined in the Safety Report for the area of Slovnaft Vlčie hrdlo.

Routes of variants A1 a A2

After assessment of the potential impacts of technologies located in SLOVNAFT, a.s. on the expressway R7 (hereinafter EW 7) we recommend constructing variant A1 or A2. The relevant accident scenarios are defined in this territory, but frequency and effects of pressure and heat subject to compliance with the agreed terms of technical measures and the special regime in the major industrial accidents is acceptable for the the routes of these variants.

Routes of variants B, C2 and D

The proposed routes of variants B, C2 and D run along the eastern boundary of SLOVNAFT, a.s. and they are unacceptable from the viewpoint of Act on Prevention of Major Industrial Accidents. Locating EW 7 in this area would result in increased overall social risk of the company. Representative emergency scenarios arising from the nature of the technology situated in this part of the area would in the event of a major industrial accident fatally affect the structure and its users. The value of the company's social risk would exceed the socially acceptable level if the variants were constructed.

With regard to variants B, C2 and D we point at the fact that these variants are not acceptable in connection with an existing hydraulic protection of ground water (HPGW), as the execution of any of the above-mentioned variants B, C 2, and D would prevent the operation of boreholes which would break the HPGW system.

SLOVNAFT, a. s., Vlčie hrdlo 1, Bratislava, (letter No. 62340/2013/947, dated 18 July 2013)

The expert appraisal delivered by RISK CONSULT, s.r.o. entitled "Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of Slovnaft, a.s." defines for the preferred variant A2 the

emergency scenarios but frequency and effects of pressure and heat subject to compliance with the agreed terms of technical measures and the special regime in the major industrial accidents are acceptable for the routes of the variant A2.

As the preferred variant A2 runs near the railway siding of Slovnaft, we supplement our statement with requirement that the expressway R7 run over the railway and its connection to the existing road is not designed in the vicinity of the railway crossings.

GEOtest, Bratislava, spol. s r.o., Bratislava (letter dated 21 May 2013)

After assessment of the interventions of the individual variants of the proposed structure with the borehole system and functionality of hydrological protection of groundwater system (HPGW), Slovnaft states that the variants B, C2 and D are unacceptable, because their performance will hinder operation of the facilities in the northern part of the hydraulic curtain's outer line.

Because the HPGW system plays an important role in protecting the groundwater source of PWA Žitný Island, we recommend constructing variants A1 and/or A2, which do not have any significant impact on the system.

Product line operator, Bratislava

We agree with constructing expressway R7 subject to the following conditions:

1. All activities in the protective zones of the product lines are regulated by Act No. 251/2012 Coll. on Energy, as amended.
2. In addition to the aforementioned Act No. 251/2012 Coll., we request compliance with Act No. 184/2002 (Water Act) and STN 650204 and the specified requirements of the product line administrator.
3. Prior to commencement of the construction and/or excavation works it is necessary to specify the direction and depth ratios of the product line directly in the field.
4. The beginning of the construction works at the entrance to the protective zone of the product line (this means the distance of 300 m on either side of the axis of a product line) and particularly at 10 m from the point of intersection, investor must notify the operator in advance.
5. We request sending another PD level for expression.

Bratislavské regionálne ochrannárske združenie (Bratislava Regional Protection Association), Godrova 3/b, 811 06 Bratislava

(letter dated 18 July 2013)

In constructing the proposed works in variant A2 we request implementation sufficient compensatory measures to ensure long-term conservation of favourable status of protected areas concerned.

We request supplementation of the proposed measures for compensation of damage on fauna, flora and habitats:

1. We suggest compensating the taken land in the habitat of Community importance Biskupické luhy by planting trees of ash-elm-oak floodplain forest in the strip linking the proposed wildlife crossing and the site of Community importance Biskupické luhy.
2. Impact on the Special Protection Area Dunajské luhy (impairment of the peripheral parts of the territory which after the construction of R7 remain less attractive as nesting and hunting grounds for some of the criteria species of birds - black kite, black stork, white-tailed eagle, harrier, wintering and migrating geese) we propose to compensate by extending the compensatory measures proposed for the continuation of R7 and D4, i.e. the creation of replacement habitats in the area between the SPA and the proposed R7 and later attached to the SPA.

3. We request a study that would identify backfilled or clogged with remnants of the Danube branches in the affected protected areas - especially given the upcoming watercourse flow of Biskupické rameno (a Danube branch) and suggest which ones should be renewed. Subsequently, during the construction of R7 to use a part of the materials (clay, gravel) from the sources to the extent possible.

4. In the section between 4.7 – 6.5 km the protective fencing on both sides for animals is proposed on both sides of the road. Parameters and routing of the wildlife crossing are appropriate. In order to mitigate the noise impacts, the 4.615 km long glass noise barrier is proposed for the body of the structure R7. As during their migration the birds often die due to crashes in the glass barriers, we suggest using glass strips that are more effective than glass with silhouettes of birds of prey.

5. In order to mitigate the negative impact of the structure on the landscape scenery and as compensation for the felling of about 950 pieces of trees and intervention in habitats of European and national importance, planting vegetation and landscaping are proposed (planting on the embankments and cuttings in the body of the road, modification and planting at intersections of resilient domestic tree species, e.g. common ash, sycamore maple and field maple, birch, common hawthorn...). However, we do not agree with planting desert false indigo (*Amorpha fruticosa*) and bladder-senna (*Colutea arborescens*) since they are not our domestic species. In addition, the desert false indigo represents an invasive species and massively spreads from the vegetation along the roads to the floodplain forests. The website of the State Nature Protection Authority SR includes the list of species of plants, which behave invasively in our territory. Since in the immediate vicinity of the planned construction of R7 there are protected areas and rare habitats of the European and national importance, it is completely inappropriate to plant invasive species in their vicinity. Therefore with regard to landscaping we propose using only the domestic species of trees and shrubs and consult their selection with a specialist from the State Nature Protection SR.

6. During the construction of R7 the soil substrate will be exposed in many locations (due to excavations, fills, destruction of vegetation by passing trucks etc.) The exposed places are an ideal space for expansion of the invasive species of plants. Therefore a very important measure will be prevention of their expansion by sowing grass mixtures and planting of local tree species.

Slovak Ornithological Society/ BirdLife Slovensko, Mlynské nivy 41, 821 09 Bratislava 2, (letter No. 503/2013/JR, dated 18 July 2013)

We agree with the conclusions of the Assessment Report that recommend constructing variant A2. For the purpose of mitigating the impacts of variant A2 and impacts of the adjacent sections, we believe it will suffice to adopt the mitigation and compensation measures proposed for the adjacent sections (D4 and R7) in the extent of which we are aware. With regard to these measures we point at the fact that it is necessary to design them in a way so that it is evident that protection of nature is ensured in the areas serving for implementation of the compensation measures for a long term (i.e. purchase of lands to be owned by the State Nature Protection Authority and if the areas are outside SPA, then their incorporation in SPA). We believe that the measures will be successfully implemented if all entities concerned cooperate.

SPARKS s.r.o., Gagarinova 7/a 821 03 Bratislava, (letter dated 2 July 2013)

- It agrees with variants A1 and A2.
- It disagrees with variants B, C2, D due to interference with our lands located on land plots No. 3377/20, 3377/21, 3377/22 in the cadastral territory Ružinov.

BRATISLAVA FREIGHT VILLAGE, a.s., Panenská 6, Bratislava 811 03, (letter dated 22 July 2013)

Variants A1 and A2 of expressway R7 in section Bratislava Ketelec – Bratislava Prievoz proposed in the Technical Study run in the route of extended Bajkalská ulica included in the valid Land-Use Plan of the Capital City SR Bratislava, dated 2007, as amended, but its proposed category (expressway) is not in line with the approved proposal. The valid Land-Use Plan of Bratislava approves the category of the road in the section concerned – feeder road in functional class FT B1. Classification of the road concerned among the feeder roads allowed to design two new flyover crossing junctions on the road concerned in order to create optimal conditions for an adequate transport service in the connected area in Vlčie hrdlo, including new Vlčie hrdlo port. Both proposed flyover crossing junctions are included in the valid land-use plan of Bratislava. Reclassification of the road concerned among the expressways can significantly restrict construction of both flyover crossing junctions. Based on the facts above we request that the proposed flyover crossing junctions are added in the Technical Study of the expressway.

The technical solution not only **failed to create the conditions for connecting new Vlčie hrdlo port to communication R7, but they were even more hindered by the parameters of the proposed road.** Under STN 73 6101, Art. 9.3., the shortest access distance of the interchanges for expressway with $v_n = 120$ km/h is at least 5.0 km; in the vicinity of the major residential areas or agglomerations can be reduced by 50 %, i.e. to 2.5 km. In the case the the flyover interchange "Vlčie hrdlo" in variant A, the distances between the interchanges would be smaller than permitted under STN 736101, Art. 9.3. and it would require granting exemption from STN. Such solution is not acceptable.

If the following statements apply: "The traffic connection of the new Vlčie hrdlo port in Bratislava is included in each variant of expressway R7" and "Structure of expressway R7 is designed so that the interchange of the traffic connection of the new port to the route of R7 can be carried out during the construction of the port", we do not see the reason for omitting the proposed flyover crossing junctions included in the Land-Use Plan of Bratislava in the Technical Study. Based on the facts above we request that the propose flyover crossing junctions are added in the Technical Study of the expressway R7.

Since we are in the EIA process at the moment, the subject matter of discussion does not include the issue of who will be the investor in the interchange concerned. The objective is that the proposed road R7 is designed from the beginning so as to reflect the requirements of the adjacent areas. Owing to its size and importance the new Vlčie hrdlo port is considered a significant investment and based on this fact it was included in the list of community structures in the valid Land-Use Plan of the Capital City of the Slovak Republic Bratislava, dated 2007, as amended. Therefore we consider it justified to request that the project of expressway R7 comply with all conditions for connecting new Vlčie hrdlo port to expressway R7. One of the inevitable prerequisites is the option to connect the port to expressway R7 in the form of flyover interchange, which, however, given the proposed speed limit and STN 736101 is not possible.

We also insist on removing the discrepancy between the Land-Use Plan of the Capital City SR Bratislava, dated 2007, as amended, and the expressway R7 plan under review and we request that the flyover crossing junctions proposed and approved in the Technical Study of the expressway R7 should be added in the Land-Use Plan of Bratislava.

Failure to connect the proposed feeder road of the new Vlčie hrdlo port to the road R7 under review through the proposed v'flyover interchanges the traffic service in Vlčieho hrdlo area will significantly restricted and complicated in the construction of new port. If the the traffic connection of the new Vlčie hrdlo port proposed and approved in the valid Land-Use Plan of the Capital City SR Bratislava, dated 2007, as amended, is not taken into account in the

assessed plan, the submitted plan of the proposed works will contradict with the applicable Land-Use Plan of Bratislava and in the future it will constitute a real threat of lawsuits.

Záhradkárska osada (Garden area) Bratislava Vlčie Hrdlo 2-16, (letter delivered to NDS, a.s. dated 30 July 2013)

We acknowledge that probably variant A, running in the vicinity of the garden area, will be constructed. We are not happy about it, but at least we welcome the information that during the construction of the road the noise barrier will be built, which should mitigate the impact of traffic of this road on the garden area.

On the other hand, with regard to preparation of the project of this road the Changes and Amendments 01 and 02 were incorporated in the Land-Use Plan of the Capital City Bratislava with effect from 1 February 2013, which have negative impact on the owners of gardens. Namely it concerns re-introduction of the protective hygienic zone of area of Slovnaft, a.s., in which our garden area was included. We were not included in the comment procedure concerning the change in the land-use plan and therefore we used the public discussion on the Assessment Report to express our opinion on the impacts of the structure on the environment. Therefore the garden area committee has **serious objections** to the protective hygienic zone interfering with our garden area **and requests the repeal or at least review and narrowing its width so that garden area is not included in the zone.**

Martina Dobiášová, Nové Záhrady VII/18, 821 05 Bratislava, (letter dated 1 July 2013)

On behalf of residents in Nové záhrady they agree with and support variant A2.

Klára Hornišová, Lipského 11 , 841 01 Bratislava, (letter dated 22 July 2013)

The need for the road is not justified in the Assessment Report or preceding levels of review under Act No. 24/2006. The roads are loaded mainly by the passenger vehicles working in Bratislava but living in the suburban areas newly built on the agricultural land. The suburban neighbourhoods should have not been established and their existence does not require building new roads. Appropriate administrative measures to promote the public transport instead of the passenger vehicles along with increasing the number of public transport services may result in the improvement of traffic at a disproportionately lower costs and damages, when compared to the proposed route, let alone the fact that the state is already extremely indebted, even due to construction of similar structures. Despite the fact that I requested review of such traffic solution in my opinions dated 16 April 2012 concerning the plan and dated 29 May 2012 concerning the scope of assessment, the Assessment Report does not deal with my opinions, which is unlawful. Statement that the railway service Bratislava – Dunajská Streda cannot resolve the traffic situation at the south-eastern entrance to Bratislava is not grounded in the text in any manner. In the aforementioned opinions I also requested that non-transparent noise barriers are used instead of glass noise barriers, but the Assessment Report keeps specifying the glass walls without any further explanation. It is a well-known fact that many birds died due to crashes in the glass walls.

The section on the multi-criteria assessment of variants includes distorted assessments, e.g. there is a statement on p. 110 that all construction variants will result in improved comfort and quality of life (+3). Likewise the criterion Fragmentation of the rare habitats is missing for the period of construction and with regard to the operation period it is stated that it will have no impact in any variant (grade 0).

I request that the monitoring results proposed on p. 125 should be publicly available. I insist on my positions on the plan and scope of assessment dated 16 April 2012 and 29 May 2012. The proposer should fully withdraw the plan in question.

5. Preparation of expert appraisal under Section 36 of the Act

The expert appraisal was prepared upon the request of the Ministry of Environment of the Slovak Republic (letter No. j. 2303/13-3.4/ml dated 26 July 2013) by RNDr. Marian Gocál, Skalité 418, 023 14 Skalité, who is registered as a natural person in the List of Competent Persons under No. 380/2006-OPV in line with Decree of the Ministry of Environment SR No. 113/2006 Coll. laying down details of professional competence for the environmental impact assessment (hereinafter the "expert").

The expert prepared the appraisal and draft final opinion based on the presented Report on Assessment of Works, Plan of Proposed Works "Expressway R7, Bratislava Ketelec – Bratislava Prievoz", his own knowledge obtained during inspection of the proposed location of the line structure (zero variant, and variants A1 - red, A2 - violet, B - blue, D - green and zero variant identified as C2), consultation with the proposer and/or its authorised representative, minutes of the public discussion on the proposed works, received written opinions from the various entities in the assessment process, additional documents from the proposer, applicable legislation and standards.

In his conclusion the expert states that the elaborated environmental documentation - plan of the proposed works and Assessment Report conveys sufficient information about the proposed works and from the formal viewpoint the documentation includes prerequisites arising under the Act and requirements determined by the Ministry of Environment SR dated 21 May 2012 in the scope of assessment.

The importance of the expected positive and negative impacts, including their interaction was evaluated in relation to the nature and scope of the proposed works and areas of implementation of the works at a good professional level.

From the aspect of assessment of the draft technical solution with regard to the achieved level of knowledge if concerning exclusion or limitation of pollution or environmental damage he stated that the proposed technical solution is in line with the achieved level of knowledge, available technology and its characteristics is sufficient to determine the impacts of the works on environment and assessment of possible mitigation measures. The proposed solutions and measures are technically feasible.

From the viewpoint of draft measures and conditions for excluding or minimising the adverse impacts of the works, the adequate technical, technological, organisational and operational measures for protection of health and environment were proposed.

The expert assessed the presented opinions of the individual entities concerned in the assessment process and stated that out of the fifteen opinions there have been no opinions that would disagree with the proposed works. Six opinions of the state administration authorities include the special and legislative requirements that must be met for implementation of the proposed works. Fifteen opinions of the state administration authorities recommend constructing variant A2. Variant A1 was recommended by six opinions and variants C2 and D received one recommendation each. Nine opinions of the state administration authorities specified no objections.

Eight opinions on the proposed works of the general public and non-governmental organisations supporting the protection of environment were delivered to the Ministry of Environment SR within the time limit under Section 35 of the Act.

Four opinions of the general public recommend constructing variant A2. Variant A1 was recommended by three opinions and variants B, D and C2 received two recommendations. Nine opinions of the state administration authorities specified no objections. In one of the opinions, the natural person disagrees with the proposed works.

The expert reviewed all opinions delivered to the Ministry of Environment SR during the EIA process under the Act, and he took into consideration all justified comments in the draft final opinion.

The expert recommended implementation of the proposed works in variant A2 (violet), which is stated in the Assessment Report subject to fulfilment of the conditions resulting from the assessment process, and if in subsequent stages of project preparation of the proposed works the uncertainties and risks occurring in the assessment process will be complemented and resolved.

At the end of the appraisal the expert states that the Assessment Report has good professional quality and sufficiently captures all essential phenomena that could affect the environment in connection with the construction and operation of the line structure "Expressway R7, Bratislava Ketelec - Bratislava Prievoz".

IV. COMPREHENSIVE ASSESSMENT OF IMPACTS OF THE PROPOSED WORKS ON THE ENVIRONMENT INCLUDING HEALTH

Overall impacts of the proposed works on the territory concerned were comprehensively documented and assessed on the basis of a detailed review of all submitted background materials and opinions of the parties concerned.

Anticipated impacts of the proposed works on the environment have been assessed in several ways: direct, indirect, cumulative, synergistic, positive and negative impacts. From the perspective of time horizon the impacts were assessed in the stages of preparation, construction and operation of the proposed works.

The scope of assessment covers the impacts on population, air, climate, noise situation, surface and ground water, surrounding rocks, soil, flora and fauna and their habitats, protected nature, landscape, urban areas and land use with the following conclusions:

Impacts on Surrounding Rock, Geodynamic Phenomena and Geomorphological Conditions

Expressway R7 in section Bratislava Ketelec – Bratislava Prievoz will be constructed predominantly on the embankments of the surface relief. Disruption of the surrounding rock and relief will be caused by construction of the body of the expressway. The most significant interventions into the surrounding rock will be at the point of the bridge structures. The least impact on the surrounding rock environment will be at the terrain level sections and low embankments.

The building and technical (construction) and operating measures will be adopted in establishing the stilts of the bridge structures, which will minimize the contamination of surrounding rock in the phase of construction and operation of the expressway.

Table Indicative balance of substances

Indicator	quant. units	Variant				
		A1 red	A2 violet	B blue	D green	C2 orange
Total length of route	km	6.675	6.949	8.848	7.729	6.795
Cubic capacity of excavations	m ³	0	0	0	0	0
Cubic capacity of embankments	m ³	696,000	566,000	1,211,000	1,269,000	1,775,173
Redundant topsoil	m ³	47,000	47,000	66,000	51,000	71,735.9

The above-mentioned balances show that the line structure in all the proposed variants will suffer from a lack of material for building the embankments due to routing on a flat territory, partly above the terrain. Collecting the material for embankments on the body of the road from the available resources will have indirect impact on the landscape relief. In order to minimize the negative impacts the shortage of material will be dealt with by utilising the existing extraction sites in the vicinity of the line structure.

Routing of the expressway is not in conflict with territories used or potentially usable for mining and quarrying. Geodynamic phenomena do not jeopardize the construction of the expressway.

Impacts on surface and ground water

All proposed routing variants of expressway R7 in section Bratislava Ketelec – Bratislava Prievoz cross the Small Danube by bridge structure and run through the protected water area of Žitný Island. With regard to bridging the Small Danube the bridge structures are dimensioned for the flow Q100 with required margin. The riverbed will not be affected and the adjacent riparian overgrowth will be preserved.

Waters from the surface ditch of expressway R7 will be outlet of the sewer in the initial sections of the route R7 directly to the recipient of Small Danube. At the sections where route R7 crosses the Protected Water Area of Žitný Island, the retention tanks and rainwater sedimentation tanks will be installed and equipped with oil separator. Purified water from the surface drainage will be routed to the infiltration ditches and wells. Surface waters from the slopes of expressway R7 will be soaked into the ground.

The line structure will be carried out above the groundwater level. The regime of the ground water may be affected only in the event of interference with the watered layer of the subsoil. The proposed technical and technological design of the expressway section to be constructed along with proposed technical measures will not affect the regime and quality of the groundwater in the territory and its vicinity. The inert spreading material which will not affect quality of groundwater is proposed for the purpose of expressway maintenance in the winter season. In order to prevent extraordinary leakage of pollutants in the unsecured environment, the expressway administrator must adopt prevention measures and emergency plan. The line structure in variant A1 and/or A2 does not interfere with the protective hygienic zone of water sources.

Impact on Soil

The most significant impact on soil stems in land taking required for placement of the line structure (permanent and temporary land taking) and loss of the production function of a part of the land fund. The smallest acreage of required land taking is in the route of the violet variant A2 and red variant A1. The largest acreage of required land taking is in the route of the blue variant B and green variant D. The lands in the proposed routes of variants A1 and A2 of expressway R7 in the section Bratislava Ketelec – Bratislava Prievoz are characterised as agricultural lands of 6th quality group, a minor share of them are classified as lands of 2nd quality group (protected land). The lands in the proposed routes of variants B, D and C2 of expressway R7 in the section concerned are characterised as the agricultural lands of 2nd and 3rd group quality (protected land), a minor share of them are classified as lands of 6th quality group.

Table: Anticipated taking of lands and forest lands

Indicator		quant. units	Variant				
			A1 red	A2 violet	B blue	D green	C2 orange
Total length of route		km	6.675	6.949	8.848	7.729	6.795
Permanent land taking required (indicative)		ha	54.1	52.4	75.37	67.77	63.2
Of which	Agricultural land	ha	48.7	47.0	75.3	67.7	63.2
	Forest lands	ha	5.4	5.4	0.07	0.07	0.0
Temporary land taking required (total)		ha	21.1	18.4	25.55	18.85	22.27
Other areas		ha	4.9	3.4	8.68	7.38	8.8

From the aspect of taking the forest lands the optimal route of the line structure seem to be routes in variant C2 and variant B and D.

During the construction of the proposed expressway the topsoil and subsoil layer will be excavated and deposited in the borrow pits. In the next construction phases of the line

structure the borrow pits will be used for reclamation of fillings and temporarily taken lands (construction yards) or they will be handled in line with the decision of the competent agricultural land protection authority.

Given that fact that the construction machinery will be used during the construction, degradation, compaction of the soil profile and potential intoxication of can be expected along the road, manipulation strips and construction yards. During the construction phase the impacts on soil are temporary and they can be eliminated by organisational and technical measures.

Normal operation of the proposed road will be a potential line source of soil contamination along the line road within the range of about 30 to 50 m by exhaust emissions. The wastewater from the roadside ditch will be discharged by the sewer to the body of water or seepage. In the emergency situations, i.e. in the case of a car accident associated with the leakage of the operating fluids can cause point contamination of surrounding soil by oil substances with the risk of leakage to ground water. The risks increase with the accidents of vehicles transporting hazardous chemical substances. In case of emergency situation associated with soil contamination by hazardous substances the contaminated soil needs to be excluded from agricultural use and according to the nature of contamination the corrective measures must be implemented (application of substances to prevent the spread of contamination, biological reclamation).

Given the proposed transport and technical parameters of expressway a low risk of accidents, if any, associated with endangering soil quality can be expected.

Impact on Air, Local Climate

In the construction phase of the proposed expressway section the local deterioration in quality of air is expected, which from the aspect of time is associated with the construction period and the meteorological conditions. Increased traffic intensity and activities of the construction machinery will cause increase in dustiness and air pollution by emissions from the combustion engines. However, this impact is restricted to the construction sites and construction period. The organisational measures are proposed for this phase. Expressway R7 in section Bratislava Ketelec – Bratislava Prievoz has the nature of the line source of air pollution. The Emissions Study (Hamza 2012) was elaborated for the purpose of assessing the impact of the variants on the air quality. It follows from the results of the Emissions Study that from the viewpoint of quantity of the produced emissions, the section of expressway R7 in variants A2 and A1 with similar quantities seem to be more acceptable, followed by variant B and variant D. From the aspect of the impact on the residents it is necessary to compare the emissions quantities in the built-up areas of the municipalities. The individual chemical factors of the traffic emissions have varying level of negative impact. From the viewpoint of the impact on the residents in the built-up areas, less residents will be affected by exhaust emissions at below the limit levels due to routing of variants A1 and A2 behind Slovnaft when compared to variants B and D running in the vicinity of the residential area Podunajské Biskupice.

In the time horizon of 2020-2035 the emission parameters for passenger and freight vehicles are expected to be stricter. Therefore slight decrease in emissions is expected in 2035 despite the increased intensity of vehicles. Based on the immission levels the variants rank as follows: A1 and A2 followed by B and D.

Climate

Removal of the considerable part of the vegetation cover can have impact on the local climate. Lower quantities of water evaporate from the road surface and embankments than from the natural terrain, which is caused by the technical solution, faster rainwater drainage. This causes conditions for increased drainage. Various landscaping techniques can slow down

or speed up groundwater and surface run-off, changing the natural water balance in the area of the road.

The smallest acreage of required vegetation cover taking is in the route of the violet variant A2 and red variant A1. The largest acreage of required vegetation cover taking is in the route of the blue variant B and green variant D.

In the operation phase the change in the radiation and energy balance of land surface will occur, because the original vegetation cover will be replaced by an artificial asphalt surface. Changes in the regime of individual meteorological elements will be mostly short term and will be manifested mainly in stable, low cloud and radiation types of weather.

Given the change in the functional use of the landscape and line anthropogenic interference (proportion of paved areas, partial replacement of vegetation by plants etc.) the impact on the local climate is represented by non-significant changes in micro-climate.

Impact on the fauna, flora and their habitats

Impacts on the gene pool and biodiversity will be most evident during the construction of the expressway R7 section under review. Negative impacts include, without limitation, the land taking for construction purposes because the major part of the area of interest consists of the agricultural land and to a lesser extent the urbanized landscape. It concerns removal of humus in the topsoil, trees and vegetation in the structure's corridor, where the intervention from the outside will hinder return to a natural recovery. This phase brings negative factors influencing the environment of plants and animals.

The route of variant A1 and/or A2 runs for approx. 130 m at position 4.5 km through the forests, which are classified as special purpose forests. The structure interferes with habitat 91FO – floodplain oak-elm-ash forests around lowland rivers. This habitat will be affected by felling (taking of habitat, removal of vegetation cover) and exposure of a part of the habitat. The proposed section in variants A1 and A2 of the expressway do not cross the integral part of the habitat, but interfere with its peripheral part only affected by the urbanised territory, including the industrial zone. Felling of trees required for laying the line structure will result in reduced acreage of the habitat, however, it will not cause its fragmentation or destruction. Under Decree of the Ministry of Environment SR No. 24/2003 Coll. as amended, the overall social value of the taken habitats amounts to €120,041.

Felling of trees and substitute planting

Construction of expressway R7 in section Bratislava Ketelec – Bratislava Prievoz requires removal of vegetation in the corridor of the line structure. As a part of preparation of the territory for construction the following indicative quantities of trees will be cut down:

variant A1 - approx. 980 - 1,000 pc of woods with social value of approx. € 650,000 ,

variant A2 – approx. 950 pc of woods with social value of approx. € 610,000, variant B - approx. 700 pc of woods with social value of approx. € 450,000,

variant D - approx. 780 pc of woods with social value of approx. € 480,000 ,

variant C2 – felling of approx. 710 pc of woods with social value of approx. € 430,000.

The route of the expressway R7 will run through the migration biocorridor - XV as follows: in variant A1 at approx. 1.54 km, variant A2 at approx. 1.5 km, variant B at approx. 2.6 km and variant D at approx. 2.5 km, the supraregional biocorridor Small Danube. The green and blue variants cross the biocorridor by the scaffold bridge at the position of occurring riparian vegetation when compared to variant A1, A2 which, however, intersect the watercourse in a position of greater anthropogenic influence of urbanised area (existing bridge, proximity to cargo port, industrial areas etc.), where coherent riverbank vegetation is absent.

Migration of deer (roe and red deer) and wild boars was recorded in the southern parts of the territory under review in Ketelec area. In order to prevent collisions between the animals and road users on the expressway, the fencing on both sides of the expressway is proposed. For preserving the migration corridor for animals in the route of variant A1 – (red) or A2 –

(violet) and variant B – (blue) the 40 m wide "green bridge" - wildlife crossing is proposed at position approx. 5.3 – 5.4 km of variant A1, or approx. 5.4 – 5.5 km (variant A2) and approx. 7.4 – 7.6 km (variant B). The proposed technical measures will allow migration of animals in the territory concerned. The existing migration corridors of the animals will keep on functioning even after the expressway is put into operation.

In order to eliminate the negative impacts after completion of the construction activities, the surrounding of the structure will be reclaimed and the line structure will be incorporated in the surrounding environment by vegetation and landscaping using the endemic species.

Impact on the landscape, scenery, protection, stability

During the construction of the line structure the temporary interference with the scenery will be caused by the established construction yards, borrow pits and access roads to the construction sites.

The impacts *during the operation of the* expressway in the section concerned affecting the structure of the landscape include:

- breakage of horizontal ties in the landscape,
- the change in the functional use of the landscape along the entire route of expressway R7, while its operation

will have adverse impact on the use of the territory in the immediate vicinity of the expressway.

Construction of the expressway will affect the landscape scenery especially by building the embankments, massive bridge structures, interchanges and noise barriers.

Substantial visual interference of the proposed construction with the landscape is the routing of the section east of the area of Slovnaft a.s. In this section the routes of variants B and D cross the existing urbanised elements of the landscape on the 6 m to 9 m high bridge structures, which from the viewpoint of the existing residential area creates a considerable interference with the existing landscape scenery. The route of variant C2 will run on two bridge structures (over road I/63 and railway siding) at the height of approx. 8 m, which will create a new disturbing technical element with negative impact on the landscape scenery.

The routes of variants A1, A2 run west of Slovnaft, a.s. and they are "hidden" behind the industrial zone from the viewpoint of the residential area of Podunajské Biskupice. The route of variant A1 and variant A2 run through the edge of the Biskupické luhy area in 130 m long section, which forms a transition from the valuable landscape area and urbanised area. The high embankments, bridge structures or cuttings will not be carried out in this section, because the route of the expressway is adjusted to the vertical alignment of the terrain (embankment approx. 1.0 m high). The architectural design of the structures will be accompanied by growing plants on the slopes, which will mitigate the visual exposure of the area and contribute to integrating the structure in the landscape. When landscaping the indigenous planting material must be used to mitigate the disruption of the landscape scenery and negative impacts on fauna.

From the viewpoint of nature and landscape protection all proposed variants of expressway R7 in section Bratislava Ketelec – Bratislava Prievoz are situated in the 1st protection level territory (Act No. 543/2002 Coll. on Nature and Landscape Protection), outside the protected areas in the flat agricultural and urban territory, which is exposed visually only a little.

Approximately 200 m from SW boundary of the industrial zone of Slovnaft, a.s., in the vicinity of the expressway in variant A1 and variant A2 in 4.5 km long section there is an eastern boundary of Protected Landscape Area Dunajské luhy (hereinafter PLA). The route of expressway R7 in variants B and D is approx. 350 m east or approx. 510 m north of the boundary of PLA Dunajské luhy. The route of expressway R7 in variant C is approx. 2.5 km NE of the boundary of PLA Dunajské luhy.

From the viewpoint of nature and landscape protection and with regard to construction of A1 or A2 the technical measures are proposed which will reduce noise from the operated structure and ensure collision free transition of animals from Biskupické luhy area to the adjacent agricultural lands in the form of suitable wildlife crossing and glass noise barrier in the vicinity of the expressway running along PLA Dunajské luhy.

Impacts on Urban Area and Use of Land

Impacts on cultural values and historical monuments, archaeological and palaeontological sites

Based on the survey (Baliová, 01.2012) we can assume that occurrence of the archaeological sites in variant B and partially in variant D of the proposed routing of expressway R7. From the viewpoint of non-interference with the known and registered archaeological sites in the territory concerned the most appropriate is variant A, which does not cross any registered archaeological site. Having regard to the scope of the construction works resulting in the considerable interference with the landscape it is quite possible that the route of the line structure may cross the archaeological objects and/or sites. In order to protect the monuments fund the investor must present the project for land-use decision and construction permit for review to the Monuments Board of the Slovak Republic. The Monuments Board of the Slovak Republic will decide on whether the salvage archaeological survey. The land-use decision will not be issued for the developer if it fails to present the decision of the Monuments Board of the Slovak Republic.

Impacts on agricultural production and forest management

The basic impact of the construction of the expressway R7 on the agricultural activities is taking the agricultural land by the body of the road, thus reducing the acreage of usable agricultural land.

Table No.5 Reduction in agricultural land

Indicator	quant. units	Variant				
		A1 red	A2 violet	B blue	D green	C2 orange
Total length of route	km	6.675	6.949	8.848	7.729	6.795
Agricultural land	ha	48.7	47.0	75.3	67.7	63.2
Temporary land taking required (total)	ha	21.1	18.4	25.55	18.85	22.27

Prior to the commencement of the construction works the overburden of humus soil will be removed, which can be later used as humus on the slopes of the road and/or immediately without the interim storage in the dumping sites it will be provided for the use to the farmers. The land, which will be temporarily taken for the construction purposes, will be reclaimed to the original soil culture after completion of the structure. The construction works will affect the structure of crops and intensity of primary agricultural production.

Indirect impact of the road operation on the agricultural production is a reduction in the quality of agricultural crops in the vicinity of the expressway and disruption of organisation of the land fund use. Access to the farmed land units in the territory concerned of the line structure will be maintained by technical measures (relocation, reconstruction, modification of field and service roads).

Forest management

From the viewpoint of taking the forest lands the best variant seems to be the route of variant C2 (0.0 ha) and variants B and D (0.07 ha of forest land taken).

The routes of variants A1 and A2 run for approx. 130 m at position 4.5 km through the forests of Biskupické luhy. They are the special purpose forests (subcategory (c) - recreational forests). The forests affected by construction of variant A1 and A2 are located in the vicinity of the Incinerator Plant and Slovnaft, a.s. They have been negatively affected by polluted air

for a long-term with impact on their health. In terms of age and stability of forests and forest lands in the greater territory, for placement of the line structure it will be necessary to minimise the width of deforestation.

Impact on the industrial production

Proposed expressway in section Bratislava Ketelec – Bratislava Prievoz will improve the traffic situation in the entire affected area. New traffic connection will encourage creation of new economic activities in the territory and improved quality of the traffic conditions will have positive impact on the industrial development and business activities in the region.

Impacts on traffic

From the aspect of the future traffic intensity in the proposed expressway R7 at section Bratislava Ketelec – Bratislava Prievoz and existing road I/63 at section ul. Pasiénková – Lieskovská cesta (years 2015, 2025 and 2035) the routes of variants A1 and A2 from the aspect of congestion are more effective than routes of variants B, D, and C2. From the viewpoint of the impact of the structure on the traffic the routes A1 and A2 are more acceptable and optimal in the territory as far as the traffic is concerned. It results also from the shape of the proposed FOI Ketelec and the highest efficiency of the traffic direction and/or traffic relation of the route Jarovce/Petržalka - centre. Impact of the section of the proposed expressway on traffic is positive in the regional and supra-regional level.

Impact on services, recreation and tourism

The expressway R7 in section Bratislava Ketelec – Bratislava Prievoz does not interfere directly with any area of recreation or tourism facilities. From the aspect of short-term recreational activities in the case variants A1 and A2 are constructed, a part of the gardening area will be interfered with and structures will be reclaimed. No negative impacts of the line structure on the tourism are anticipated. The cycling roads and pedestrian paths will remain unaffected, or their use will be ensured. The new traffic corridor will have a positive impact on the development of services and business activities in the Bratislava region with a favourable impact on tourism.

Impacts on infrastructure

Construction of the line structure in the current section will require interventions in the current status of elements of the infrastructure in the affected territory (roads, water supply system, sewer, gas, heat, hot water supply system, HV, LV power lines, optical cables, substations, control station). These interventions will be identified in detail in the land-use proceedings and their solution will be reflected in the composition of documentation for land-use planning decision and construction permit.

Routes of the variants B and D and/or C2 cross the protective zone of the oil pipelines (DN 300, DN 500) in the eastern part of Slovnaft, a.s. on the embankment at section of approx. 4.5 km – 6.0 km (variant B), section of approx. 4.4 km – 6.0 km (variant D) and section of approx. 4.4 km – 5.5 km (variant C2). NW of Slovnaft, a.s. variants A1 and A2 touch the protective zone of pipeline DN 250 / 300 running to the port (it concerns section of approx. 1.8 – 2.5 km in variant A1 or approx. 1.9 – 2.6 km in variant A2). In this section the variants A1 and A2 run on the embankment. The route of the proposed works crossing the protective zones of the oil pipelines will not be carried out in the notched forms.

The proposed relocation of overground and underground lines will not have a permanent negative impact on the environment. Dust and noise will be produced by the excavation works for a temporary period.

Development interests in the territory concerned

Port of Vlčie hrdlo - development

Variant A1 and/or A2 takes into account the planned development of the port pool Vlčie hrdlo, the structure will not limit its development potential. As a part of the route of variant A1 and/or A2 the reserve is created (section at approx. 2.5 – 2.6 km, section 3.0 – 3.5 km) for construction of the interchange (connection of new port to R7), which is reflected also in the Land-Use Plan of the Capital City of the Slovak Republic Bratislava, Changes and amendments No.2, (ZaD 02 3. Public transport facilities).

Public terminal of intermodal transport Bratislava

The proposed line structure in the section concerned take into consideration the structure being prepared by ŽSR in Vlčie hrdlo area. The public terminal of the intermodal transport will be located outside the route of the individual variants of the proposed works.

Impact on Residents

From the aspect of the anticipated impacts of the proposed activities on the environment the comfort and quality of life of the residents will be especially disturbed during the construction period of the expressway associated with a temporary negative impact on quality of life in affected parts of residential area caused by construction activities and restricted traffic.

From the viewpoint of impacts on the residents, location of the construction yards, access roads and traffic routes for transportation of the filling material and disposal of unsuitable excavated soil. Location of the construction yards can be assessed only in the permit procedure phase. In this phase only the restricting measures can be imposed, i.e. where they cannot be located (e.g. sufficient distance from the residential areas and protected areas).

The impacts on the residents during the operation of the structure are assessed based on the immission situation and noise burden in the adjacent residential areas of the municipalities concerned (single and multi-storey structures, garden areas, development zone of amenities, etc.):

Diffuse Study (Inžinierske služby spol. s r.o., Martin, 2012, 2013) proved compliance with the relevant imission limits concerning pollutants for the target status. From the viewpoint of impact on the population in the residential areas of the municipalities concerned, in variants A1 and A2 of the line structure a smaller number of residents will be directly affected by emissions due to direction of the route west of the premises of Slovnaft, a.s. when compared to variants B, D and C2, which are located closer to the residential zone with greater number of residents in Bratislava - Podunajské Biskupice municipality.

Noise Study (Inžinierske služby spol. s r.o., Martin, 2012, 2013) proved that subject to implementation of the noise control technical measures the expressway will not exceed the relevant hygienic limits in the section concerned under Decree of the Ministry of Health No. 549/2007 Coll. establishing the details on the permissible values of noise, infrasound and vibration and on the requirements for the objectification of noise, infrasound and vibration in the environment, as amended. From the viewpoint of the impact on the residents the conclusions of the study recommend implementing variant A1 (A2) due to its greater distance from the compact single and multi-storey residential structures in the territory as well as due to less required noise control measures.

Acquisition and sanitation of premises

Performance of the proposed works will require taking and sanitation of the premises – in variant A1 - (red), which runs in line with valid land-use plan of the Capital City of the Slovak Republic Bratislava and which requires taking approx. 64 pc of residential buildings (of which approx. 32 pc of garden cottages).

As a result of deviation of variant A2 route at position of approx. 1.1 – 1.8 km in Malé Pálenisko, it requires less structures to be reclaimed (approx. 21 residential buildings, of which 6 garden cottages) when compared to A1.

The routes of variant B – (blue) and variant D – (green) run north and east of Slovnaft, they run through the developing territories of community facilities and mixed territories (according to LUP of the Capital City of the Slovak Republic Bratislava, 2007, as amended) and require reclamation of 38 buildings or 34 buildings respectively. The route of variant C2 will require taking of 34 buildings.

The route of variant C2 at point 6.5 km will require taking / reclamation of the existing transformer station (400 / 110 / 22 kV). In the area of the existing transformer station (with acreage of 220 x 500 m) FOI R7 / I/63 is proposed.

It follows from the facts above that variant A2 is the most acceptable from the aspect of reclaiming the structures.

Health risks

Based on the anticipated noise level caused by the operation of the proposed section of expressway R7 and especially the proposed noise control measures (Noise Study, Inžinierske služby spol. s r. o., Martin, 2012, 2013), traffic burden and immission burden (Inžinierske služby spol. s r. o., Martin, 2012, 2013), we do not expect the negative impact on comfort and quality of life of the residents in the territory under review. The proposed new traffic connection will have a positive impact on the comfort and quality of life in the affected residential areas, even given the current traffic situation in the greater territory.

Safety and technical risks

"Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of Slovnaft, a.s." was prepared for the proposed works which assessed the risks of the representative accident scenarios from companies operating in the area of Slovnaft, a.s.

Based on the results of the expert opinion the following was stated:

- In the western or north-western part of Slovnaft, a.s. there are no such production or storage facilities exposed to risks under emergency scenarios resulting in significant risk for the structure and its surroundings and operation of expressway R7 in variants A1, A2.
- The proposed routing of variants B, D and C2 of expressway R7 along or concurrently with the eastern border of Slovnaft, a.s. would in terms of the Act on Prevention of Major Industrial Accidents result beyond doubt in increased overall social risk of the enterprise, which cannot be accepted even if considering the social and public interests, since both enterprises are classified in cat. B of the enterprises under the Act on Prevention of Major Industrial Accidents, and moreover their current total (summary) value of the social risk is well beyond the socially acceptable limits.
- From the aspect of pressure effects, the "borders" of the surrounding area is more important for variants A1 and A2 rather than for variants B, C2 and D. Routing of R7 in variants B, C2 and D is such that VCE (Vapour Cloud Explosion) emergency scenario, e.g. storage units SKP1 and SKP2 causing shock (pressure) wave would present a direct threat for the proposed structure (variant B, D and C2). The relevant space between the edge of Slovnaft, a.s. and planned routes of variants B, C2 and D of structure R7 is composed of in particular the agricultural lands and/or small – simple structures.
- The space between the production units/ warehouses and proposed variants A1 and A2 the expressway R7 is occupied by the continuous industrial structures, which forms an important barrier from the aspect of pressure wave spreading and this "barrier-full" space would clearly result in significant reduction in pressure effects on the route of variants A1 (A2).

- The range of the considerable thermal and pressure effects when R7 is routed along the western part of the premises of Slovnaft, a.s. are lower and less probable from the aspect of socially unacceptable consequences unlike the route of variants B, C2 and D.

Anticipated cross-border impacts

Given its location and nature the construction and operation of the line structure will not produce emissions or other impacts that contribute to long-range cross-border pollution or negative impact on the environmental components of neighbouring states.

V. OVERALL ASSESSMENT OF IMPACTS OF THE PROPOSED WORKS ON THE PROPOSED SPECIAL PROTECTION AREAS, SITES OF EUROPEAN IMPORTANCE OR EUROPEAN SYSTEM OF PROTECTED AREAS (NATURA 2000)

The impacts of the structure on the affected NATURA 2000 sites were dealt with in the study "Assessment of Structure's Impact on the Territory of NATURA 2000 System" (EKOJET, s.r.o., 2013).

According to the conclusions of the study, the proposed expressway R7 in section Bratislava Ketelec – Bratislava Prievoz in variant A1 and variant A2 will not have significant impact on the object of protection and integrity of protected areas: Special Protection Areas Dunajské luhy (SKCHVU007) and site of Community importance Biskupské luhy (SKUEV0295). The line structure in variants A1 and A2 reduces the area of habitat Ls1.2.-91F0, which has a moderate impact on the object of protection of the site of Community importance Biskupské luhy. Reduced area of the habitat, population of species as well as biodiversity in the territory is insignificant. Likely fulfilment of the objectives of protecting the territory will not be significantly impaired and the line structure will not cause deterioration of the protected objects. The section of expressway R7 is situated in the peripheral part of the site of Community importance outside its central parts and/or the interference with habitats and natural development of species are marginal only. High quality or unique species or affected parts of habitats representing endangered or nearly extinct populations or habitats are not affected. Protection status of the affected habitats will not change from the aspect of their favourable nature.

The proposed line structure does not interfere with the Special Protection Area Dunajské luhy (SKCHVU007).

The site can be affected indirectly only. Considerable disruption of the ecological situation in the affected object of protection in SPA Dunajské luhy is not anticipated. From the viewpoint of integrity the quality of the NATURA 2000 site will be maintained. In terms of satisfying its ecological functions and regenerative capacity with regard to the object of protection the species and habitats will continue to be able to function in the existing manner.

The route of the proposed structure in variants B, D and C2 do not interfere with NATURA 2000 sites. The line structure in variant B, variant D and variant C2 is situated north-east of Slovnaft, a.s. and in collision with the hydraulic curtain of Slovnaft, a.s.

Construction of the expressway in this location could result in dysfunction of the eastern part of the hydraulic groundwater protection will result in leakage of free and dissolved oil substances from beneath Slovnaft area and subsequently they would be transmitted to PWA Žitný Island given the general direction of groundwater flow in the west - east direction.

With regard to proposed works the "Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of

Slovnaft, a.s.", was prepared by RISK CONSULT, s.r.o., Ing. Ján Kandráč, CSc., 2013. The subject matter of the expert opinion was to find and justify the optimal variant of expressway R7 regarding the safety aspects and risks of this territory and the risky technology in the premises of Slovnaft, a.s.

Based on the results of the expert opinion it was stated that the range of the considerable thermal and pressure effects when R7 is routed along the western part of the premises of Slovnaft, a.s. are lower and less probable (variant A1 and/or variant A2) from the aspect of socially unacceptable consequences unlike the route of variants B, C2 and D.

The proposed routing of variants B, D and C2 of expressway R7 running concurrently with the eastern border of premises of Slovnaft, a.s. under the Act No. 261/2002 Coll. on Prevention of Major Industrial Accidents, as amended, would clearly result in increased total social risk of the enterprise, which cannot be accepted not even in the case of nationwide and publicly beneficial interests.

VI. CONCLUSIONS

1. Final opinion on the proposed works

Based on the results of the assessment process carried out in line with the provisions of the Act, where the status of the territory, importance of expected impacts, including the cumulative impacts, of the proposed works on the territory and health of the residents were considered from the aspect of probability, scope, period and nature of the proposed works, place of performing the proposed works with focus on compliance with the land-use planning documentation, the level of processing documentation, opinions of the authorities and organisations affected by the proposed works, as well as opinions of the residents living in the territory concerned

we recommend

constructing the proposed works "Expressway R7, Bratislava Ketelec - Bratislava Prievoz" subject to fulfilment of the conditions set out in par. VI. 3. of the Final Opinion. Uncertainties that occurred in the impact assessment process must be dealt with in further levels of preparing the structure-related project.

2. Recommended variant

Based on the conclusions of the comprehensive assessment of the proposed works we recommend constructing variant **A2 (violet)**.

3. Recommended conditions for the phase of preparation and construction of works

Based on the assessment of the quality of the environment in the territory concerned and results of the environmental assessment of the proposed works considering the opinions of the parties concerned and comments from the expert opinion as well as the assessment of the proposed measures, which minimize the expected negative impacts on the environment of the territory concerned the following conditions are recommended for the preparation, implementation and operation:

1. Bring LUP of Bratislava municipality in line with selected variant with regard to the garden area.
2. Submit the next level project documentation to the authorities and organisations concerned (in particular the Civil Aviation Authority of the Slovak Republic to issue the

- binding opinion and SLOVNAFT, a.s., as the product line operator, Mining Authority etc.).
3. Design the expressway R7 in the vicinity of the Slovnaft's railway siding to run over the railway and design its connection to the existing road in the vicinity of the railway crossings.
 4. Prior to commencement of the construction and/or excavation works it is necessary to specify the direction and depth ratios of the product line directly in the field.
 5. The operator must be notified in advance of the beginning of the construction works at the entrance to the protective zone of the product line (this means the distance of 300 m on either side of the axis of a product line) and particularly at 10 m from the point of intersection.
 6. Dispose the waters from the surface drainage system by seepage into the surrounding terrain subject to the condition that they are not polluted by water contaminants.
 7. Use appropriate barriers, e.g. geo-textiles, to prevent possible penetration of pollutants into groundwater.
 8. During the construction it is necessary to ensure the geological (and/or geo-technical supervision). Another technical measure depending on the identified engineering and geological and hydro-geological conditions is to ensure the hydro-geological and geo-technical (at high embankments) monitoring of selected sections of the building.
 9. Specify precisely placement of construction material landfills and the method preventing their secondary dustiness at further project documentation level.
 10. Update and specify locations of the environmental burdens of cat. A, B, and C with their precise description according to the "Information system of the environmental burdens".
 11. Specify in greater detail the peculiar and special measures to be adopted during the construction works in the vicinity of the utilities networks, revision shafts, and other premises and facilities in the separate project designs at further project preparation level (e.g. the issue of permanent access of owners and administrators of utilities to the premises and facilities during construction, temporary location of objects of the the proposed construction site facilities and their protective zone etc.).
 12. Use the excavated soil coming from the construction works in the body of the road to a maximum extent.
 13. In the section between 4.7 – 6.5 km of expressway R7 build the protective fencing on both sides of the road for animals.
 14. In section 5.4 – 5.5 of expressway R7 build the wildlife crossing.
 15. Erect the noise barriers to mitigate the noise of expressway R7 (consult the type of the noise barrier at relevant sections with the State Nature Conservancy Authority of the Slovak Republic (ŠOP SR)).
 16. Suggest the place for disposing of the unsuitable soil from the excavation works upon agreement with the representatives of the municipalities and business entities.
 17. In the documentation for the land-use decision pay more attention to the study concerning required taking of lands including assessment of quality, balance and use of the overburden material in accordance with Act No. 220/2004 Coll.
 18. Reduce the acreage of the temporarily taken land so that the line handling areas are located in the permanently taken lands and so that the construction site facilities, storage areas and other structure-related facilities are located in the alternative non-agricultural lands.
 19. Comply with the determined acreage of the permanently and temporarily taken land.
 20. Minimise the permanent and temporary taking of the forest lands, place the construction yards and material and waste dumps so that the area of other lands or lands carved out from the forest or agricultural lands are used to the maximum extent possible.

21. Set out the conditions in the project documentation stating that the deforestation is not performed to full required width of the protective zone along the expressway route of the selected variant running through a forest or its periphery, but taking into consideration the age and stability of the forests and forest lands in line with Section 5 of Act No. 326/2005 Coll. on Forests, as amended, to minimise the width of deforestation. To discuss and agree on the scope of such activities with the competent State Forest Management Authority.
22. Reclaim the temporarily carved out forest lands so that they fulfil the original forest function. To discuss and agree on the scope of such activities with the competent State Forest Management Authority.
23. Deal with the substitute greenery or other proposed mitigating measures due to intervention in the habitats or other components of the environment so that the "measures" are not placed on or designed for the existing forest lands (exclude the desert false indigo (*Amorpha fruticosa*) and bladder-senna (*Colutea arborescens*) from the composition of species).
24. Construct the protection measures in the form of resistant protection wall (enhance resistance to overpressure at minimum 7 kPa and thermal throw at minimum 7 kW.m⁻²) and construct the blockage system connected to the warning system of Slovnaft, a.s. and at the same time it should not result in the undesirable collision traffic situation by warning signals after it is launched into operation.
25. In the case any archaeological findings are discovered, make rescue survey in line with all provisions of Act No. 49/2002 Coll. on Monument Fund Protection.
26. In the project preparation phase submit the complete landscaping project for approval to the competent state administration authority.
27. Protect the trees in the vicinity of the structure during both construction and operation in line with STN 83 7010 Protection of Trees.
28. Minimize standing and passing of vehicles on vegetation area and under the trees.
29. Perform felling of the trees in non-vegetation and non-nesting period upon approval of the state nature protection authority. Dendrological survey must be prepared as the basis for issuing the consent to felling the trees.
30. After completion of the structure to renew the vegetation area even on the adjacent land lots, which are affected by the construction works and to prevent spreading of invasive plants. It is necessary to propose locations of substitute planting and to use the original tree species for planting.
31. For the period of construction of the expressway to set up the "Plan of preventive measures against uncontrollable leakage of hazardous substances into the environment" in accordance with Act No. 364/2004 Coll. on Waters and Implementing Decree No. 100/2005 Coll.
32. The contractor must have sufficient stocks of the technical and emergency materials (absorbing substances) for the cases of extraordinary leakage of pollutants into unsecured environment.
33. Sanitary wastewater from the construction site must be captured and subsequently disposed in accordance with the Act on Waters.
34. Place the construction yards and soil dump sites outside the agricultural land or land with lower quality outside the protected areas.
35. During the construction works to minimise dustiness and secondary dustiness from traffic using suitable technical and organisational measures.
36. Minimise storage of dusty construction materials to the necessary extent ensure storage in the construction site in the lockable warehouse or construction silos.

37. Incorporate all measures implemented to limit dustiness in the operating regulations and familiarise the employees with these measures.
38. During construction as well as during operation of the expressway protect the surrounding agricultural land from damage and deterioration, especially hinder contamination of soil and rock from dangerous substances.
39. Ensure compliance with the conditions of health protection from noise, infrasound and vibrations set out in Act No. 355/2007 Coll. on Protection, Support and Development of Public Health and its implementing regulations.
40. Not to perform the construction works in the vicinity of residential areas at nights and on bank holidays.
41. From the aspect of traffic to ensure an efficient technique for cleaning the roads especially when performing earthworks and further construction, including collection of solid contaminants.
42. Describe in detail a method of disposal of hazardous waste in further stages of project documentation. Indicate the balance flows, individual activities and places where the waste will be produced, how and where they will be treated until the time of improvement and disposal.
43. In subsequent phases of the project documentation specify the contractual relationship with the authorized organisation, which will collect waste during the construction. Enter into a contract for collection of waste produced during the operation with the authorised organisations.
44. During the construction of structures and their subsequent operation use only equipment and motor vehicles in roadworthy condition.
45. By erosion control measures, such as the reinforcement of the slope walls and planting, agro-technical and organisational measures, minimise the transport of soil particles in surface water.
46. When ensuring materials from other sources, use the existing raw material deposits to a maximum extent and open new deposits only if necessary.
47. After completion of the construction works, reclaim the temporarily taken areas under the approved "Reclamation Project".
48. Deal with the issue of the farmers affected by construction, Bratislava Vlčie Hrdlo 2-16, by taking special steps.
49. In the further permit procedure, assess impacts adequately and propose full mitigation measures for protected areas.
50. We suggest compensating the taken land in the habitat of Community importance Biskupické luhy by planting trees of ash-elm-oak floodplain forest in the strip linking the proposed wildlife crossing and the site of Community importance Biskupické luhy.
51. Based on the assessment of the structure's impact on NATURA 2000 sites, the construction of expressway R7 will have a moderate negative impact on integrity of SCI Biskupské luhy and SPA Dunajské luhy. Construction of expressway R7 will have indirect impact on Special Protection Area Dunajské luhy for the birds – white-tailed eagle (interference with food territory), greylag goose (interference with food and relaxation territory) and the site of Community importance Biskupské luhy - European fire-bellied toad and tundra vole (interference with habitat). Given the integrity of the affected sites Biskupské luhy and Dunajské luhy, affected also by construction of D4, incorporate the proposed, mitigating measures for construction of R7 in the determined scope of the proposed compensation measures for highway D4, which will be discussed in advance with State Nature Conservancy Authority SR and Ministry of Environment SR.

52. With regard to these measures we point at the fact that it is necessary to design them in a way so that it is evident that protection of nature is ensured in the areas serving for implementation of the minimisation measures for a long term (i.e. purchase of lands to be owned by the State Nature Protection Authority and if the areas are outside SPA, then their incorporation in SPA).
53. Prepare a study that would identify backfilled or clogged with remnants of the Danube branches in the affected protected areas - especially given the upcoming watercourse flow of Biskupické rameno (a Danube branch) and suggest which ones should be renewed. Subsequently, during the construction of R7 to use a part of the materials (clay, gravel) from the sources to the extent possible.
54. In order to mitigate the negative impact of the structure on the landscape scenery and as compensation for the felling of about 950 pieces of trees and intervention in habitats of European and national importance, planting vegetation and landscaping are to be performed (planting on the embankments and cuttings in the body of the road, modification and planting at intersections of resilient domestic tree species, e.g. common ash, sycamore maple and field maple, birch, common hawthorn...).
55. During the construction of expressway R7 the soil substrate will be exposed in many locations (due to excavations, fills, destruction of vegetation by passing trucks etc.) The exposed places are an ideal space for expansion of the invasive species of plants. Therefore it will require operational prevention of their spreading based on the instructions of environmental supervisory body.
56. In cooperation with BRATISLAVA FREIGHT VILLAGE, a.s., Bratislava resolve the request of creating the conditions for connecting the new Vlčie hrdlo port to expressway R7. The entity keeps insisting on removing the discrepancy between the Land-Use Plan of the Capital City SR Bratislava, dated 2007, as amended, and the expressway R7 plan under review and it requests that the flyover crossing junctions proposed and approved in the Technical Study of the expressway R7 should be added in the Land-Use Plan of Bratislava. (Failure to connect the proposed feeder road of the new Vlčie hrdlo port to the expressway R7 under review through the proposed flyover interchanges the traffic service in Vlčieho hrdlo area will significantly restricted and complicated in the construction of new port.) According to the technical solution in TS and Assessment Report, the territorial reserve was left for construction of the interchange connecting the new Vlčie hrdlo port and expressway R7.

4. Justification of the final opinion including the rationale for acceptance or non-acceptance of written opinions

The final opinion was drawn up in accordance with Section 37 of the Act based on the results of the assessment process, information contained in the Assessment Report, opinions of the authorities and organisations concerned, results of public discussions with residents in the affected area, the applicable legislation and standards, expert appraisal, additional information provided by the proposer and special documents :

- Plan elaborated under Act No. 24/2006 Coll. on EIA.
- Assessment Report elaborated under Act No. 24/2006 Coll. on EIA.
including Annexes: Cross Section of the Proposed Works, Visualisation, Emissions Study, Inžinierske služby, s.r.o., 2013, Noise Study, Inžinierske služby, s.r.o., 2013, Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of Slovnaft, a.s., RISK CONSULT, s.r.o., 2013, Assessment of Structure's Impact on the Territory of NATURA 2000 System, EKOJET, s.r.o., 2013, Minutes of the Meeting dated 30 May 2013, Map documentation.

- Technical Study of Expressway R7 Bratislava Ketelec– Bratislava Prievoz (Stráský, Hustý a partneři s.r.o., Brno, March 2012), which includes: Traffic and Engineering Survey, Engineering and Geological Study, Noise Study, Emissions Study, Calculations of Directional and Vertical Alignment of Routes of Variants, Seismic Survey, Pyrotechnic Survey, Archaeological Survey, Visualisation of R7, Environmental Burden Study and Risk Study.
- Technical Study of Expressway R7 Bratislava Ketelec– Bratislava Prievoz, Connection of variant D-R7 Bratislava Ketelec – Bratislava Prievoz and variant C-R7 Bratislava – Dunajská Lužná, (Stráský, Hustý a partneři s.r.o., Brno, May 2013).

The comments in the opinions of the entities concerned were analysed. Justified comments are reflected in the draft measures and in recommended conditions for the phase of preparation and implementation of works.

When recommending the proposed works the impacts on residents and their health, socio-economic and natural environment (including protected areas) as well as some technical-economic and transport criteria were taken into account.

In total fifteen opinions from representatives of the state administration authorities, municipal authorities and a minutes of the public discussion of the proposed works were delivered to the Ministry of Environment SR. Six opinions of the state administration authorities include the special and legislative requirements that must be met for implementation of the proposed works. Fifteen opinions of the state administration authorities recommend constructing variant A2. Variant A1 was recommended by six opinions and variants C2 and D received one recommendation each. Nine opinions of the state administration authorities specified no objections.

Eight opinions on the proposed works of the general public and non-governmental organisations supporting the protection of environment were delivered to the Ministry of Environment SR within the time limit under Section 35 of the Act.

Four opinions of the general public recommend constructing variant A2. Variant A1 was recommended by three opinions and variants B, D and C2 received two recommendations.

In one of the opinions, the natural person (Mrs Klára Hornišová) disagrees with the proposed works.

Based on the results of the course of the public discussion on the proposed works and the process of assessing the proposed works it can be stated **that the general public has no objections to the construction of the proposed works**. The gardeners will be addressed especially in the land-use procedure (i.e. later).

Bratislava-Ružinov municipality states that the proposed works are in line with the valid of the Land-Use Plan of the Capital City Bratislava in variants A1 and A2.

Opinions of SOS/BirdLife Slovensko (No. 503/2013/JR, dated 18 July 2013) and BROZ (dated 18 July 2013) - the aforementioned companies expressed themselves on the assessed works: "Expressway R7 Bratislava Ketelec – Bratislava Prievoz"

The author of the documentation EKOJET, s.r.o., Bratislava commented on the objections:

Opinion of SOS/BirdLife Slovensko:

Comment 1: We consider the location and parameters of the wildlife crossing in variant A2 at point 5.4 km to be correctly selected. In addition, up to the wildlife crossing from 4.35 km construction of glass noise barrier is proposed. We point at the necessity to select material for the wall in this case in order to prevent the increased mortality of birds.

Reply 1: Acceptable with subsequent incorporation into relevant documentation so that there is no increase in mortality in bird species populations.

Comment 2: In addition to the immediate impacts and incorporation in the landscape the broader impacts must be taken into consideration. In constructing variant A2 at section Bratislava-Keletec – Bratislava-Prievoz 566,000 m³ of gravel will be required. Another 696,000 m³ of gravel will be required for expressway R7 between interchange Keletec and Dunajská Lužná for relocations and modifications of roads and field and service roads in this section. In total 1,262,000 m³ will be required for the two sections, which will have to be constructed simultaneously. The place from which the gravel will be transported has not been determined yet.

Reply 2: On page 80 of the Assessment Report we state that construction of the proposed works will not result in opening of new deposits in the greater surroundings of the territory under review, but we suggest using the existing deposits located outside the protected areas. Opening of new deposits will be subject to environmental impact assessment under Act No. 24/2006 Coll. in separate procedure. Opening of the new deposits is also subject to procedure under Act No. 44/1988 Coll. on the protection and use of mineral resources, as amended. It is a Mining Act that regulates further procedure in relation to the specified comment. Mineral deposits usable for the proposed structure are listed on p. 32.

Comment 3: Based on the assessment the structure R7 will have only a moderate negative impact on white-tailed eagle and geese. Despite the mistakes specified below, one can agree with the assessment concerning the section based on the data, of which we are aware. The problem, however, could be related construction works, which construction of R7 and adjacent D4 could require, such as various logistics centres and industrial zones. In such case this could result in taking larger acreage of food habitats of geese and white-tailed eagles while the impact of expressway R7 Bratislava - Keletec – Bratislava - Prievoz could be classified as a significantly negative.

Reply 3: The level of building up the area in the vicinity of the proposed works is set by the valid land-use plan of the city and self-governing region, extracts are specified on pp. 60 and 61 of the Assessment Report. Both documentations are binding and passed SEA process. In the case new structures should be built, they will have to pass the EIA process, which includes assessment of NATURA 2000 site. This means that the objection on the new works can be asserted in a separate procedure concerning the relevant structure.

The proposed works in variants A1 and A2 are in line with the land use plan.

According to the Land-Use Plan of the Capital City Bratislava, specified on p. 61 of the Assessment Report, the territory between the expressway and the proposed NATURA 2000 site is proposed for forestation - the land-use plan has been valid since 2007, which means that this requirement has been satisfied already.

Comment 4: However, it is not clear from the procedure concerning the presented impact assessment in the special protection area whether it is just coincidence that significant of impacts on this section is based on the same premise as our data suggest. The authors of the Assessment Report used the books on birds which are 10-30 years old and listed in the bibliography. SPA Dunajské luhy is included among the best explored areas in Slovakia, it is somewhat surprising that the bibliography is short. Considering such poor incorporation of the available data it is not surprising that status of wintering populations of geese is assessed as good (table No. 32), while in fact the current status is not even average but unfavourable resulting from decline in recent years. The result of such poor elaboration is a group of various absurd and false claims in the impact assessment on NATURA 2000 sites. Similarly

we see as problematic the evaluation of our comments in the Assessment Report, which on page 76 our comment that the route R7 will not disrupt the nesting area of white-tailed eagles is mistakenly inserted.

Reply 4: In transferring the investigative outcomes into the special elaboration, this is performed using the scientific and citation database for a given species and territories. In elaborating the assessment, the standard data forms of NATURA 2000 were used as a part of IS EEA, where the "disputable" sources form an integral part.

The recommended database aves.vtaky.sk fails to include graphical and geographical interpretation of areas where certain species were spread. The publicly accessible database includes more or less only a point occurrence without any further hierarchical interpretation of the diffuse in landscape area. For any further addressing the conflicts of interests arising from the clash of biotic and socio-economic sphere, it would be good to add information in the relevant databases of interpretative, evaluation and propositional nature. We appreciate the work carried out by SOS/BirdLife Slovensko in mapping the territory concerned, and in the case of restructuring their information system aves.vtaky.sk, we will be pleased to provide our professional capacities.

We based our assessment on the verified data that have undergone external examination and field survey in the location concerned. We also asked the State Nature Conservancy Authority SR - Bratislava branch to provide us the data.

With regard to insufficiency we would like to stress that the proposed activities run through strongly urbanised area, where its impacts are not known. Therefore these species are already located in the remote areas from the territory concerned.

At the same time we confirm that after learning the data from the database of SOS/BirdLife Slovensko, we can affirm our assessment related to Natura 2000 in the territory concerned.

Statement: However, we agree with the conclusions of the Assessment Report that recommend constructing variant A2.

Reply: We accept and add that the Assessment Report showed that the proposed work does not interfere with the favourable conservation status of the object in NATURA 2000 sites. The Report and opinions on it provided by the self-government confirm public interest in construction of the works, including social and economic reasons.

Opinion of BROZ (Bratislava Regional Protection Association):

Comment 1: We suggest compensating the taken land and the habitat of Community importance Biskupické luhy by planting trees of ash-elm-oak floodplain forest in the strip linking the proposed wildlife crossing and site of Community importance Biskupické luhy.

Reply 1: Acceptable subject to subsequent incorporation in the relevant documentation.

Comment 2: Impact on the Special Protection Area Dunajské luhy (impairment of the peripheral parts of the territory which after the construction of R7 remain less attractive as nesting and hunting grounds for some of the criteria species of birds - black kite, black stork, white-tailed eagle, harrier, wintering and migrating geese) we propose to compensate by extending the compensatory measures proposed for the continuation of R7 and D4, i.e. the creation of replacement habitats in the area between the SPA and the proposed R7 and later attached to the SPA.

Reply 2: *Acceptable subject to subsequent incorporation in the relevant documentation, such solution has been already suggested in the 2007 land-use plan of the Capital City Bratislava. We also point at the fact that it will concern the mitigation measures, since the compensation measures are proposed in the case the significant adverse impact on the integrity of the NATURA 2000 site is identified.*

At the same areas the replacement habitats should not overlap with the areas to be developed within the project: Conservation of Endangered Bird Species Populations in Natural Habitats of the Danube Inland Delta, Danube birds conservation, LIFE07 NAT/SK/000707, http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3355.

We suggest providing the three-times bigger acreage of the taken habitats.

Comment 3: *We request a study that would identify backfilled or clogged with remnants of the Danube branches in the affected protected areas - especially given the upcoming watercourse flow of Biskupické rameno (a Danube branch) and suggest which ones should be renewed. Subsequently, during the construction of R7 to use a part of the materials (clay, gravel) from the sources to the extent possible.*

Reply 3: *We suggest not to accept the said comment, because it is inadequate, the proposed structure is constructed on the embankment without any considerable impacts on the flow of the groundwater. The comment overlaps with the requirements that should be implemented within the project: LIFE07 NAT/SK/000707.*

It is a requirement not related to the proposed structure and not considered.

Mining of minerals in the Natura 2000 sites is subject to impact assessment, natural assessment and only after affirmative completion of these processes, the application for permit can be filed with the Mining Office. The process should be initiated by the landowner or watercourse administrator, because he is the potential applicant for the mining permit or land-use planning decision.

Such activities would also require exemptions for protected species under Act No. 543/2002 Coll. on Nature Conservation, as amended.

We assume that in the case it is carried out, the negative aspects will prevail over the positive aspects.

Comment 4: *In section 4.7 – 6.5 km the protective fencing on both sides of the road and the wildlife crossing is proposed, since the proposed route of R7 crosses the migration corridor of animals. Parameters and routing of the wildlife crossing are appropriate. In order to mitigate the noise impacts, the 4.615 km long glass noise barrier is proposed for the body of the structure R7. As during their migration the birds often die due to crashing the glass barriers, we suggest using glass strips that are more effective than glass with silhouettes of birds of prey.*

Reply 4: *Acceptable with subsequent incorporation into relevant documentation so that there is no increase in mortality in bird species populations.*

Comment 5: *In order to mitigate the negative impact of the structure on the landscape scenery and as compensation for the felling of about 950 pieces of trees and intervention in habitats of European and national importance, planting vegetation and landscaping are proposed (planting on the embankments and cuttings in the body of the road, modification and planting at intersections of resilient domestic tree species, e.g. common ash, sycamore maple and field maple, birch, common hawthorn...). However, we do not agree with planting desert false indigo (*Amorpha fruticosa*) and bladder-senna (*Colutea arborescens*) since they are not our domestic species. In addition, the desert false indigo represents an invasive species and*

massively spreads from the vegetation along the roads to the floodplain forests. The website of the State Nature Protection Authority SR (<http://www.sopsr.sk/publikacie/invazne/index.php?id=propagacne>) includes the list of species of plants, which behave invasively in our territory. Since in the immediate vicinity of the planned construction of R7 there are protected areas and rare habitats of the European and national importance, it is completely inappropriate to plant invasive species in their vicinity. Therefore with regard to landscaping we propose using only the domestic species of trees and shrubs and consult their selection with a specialist from the State Nature Protection SR.

Reply 5: Acceptable with subsequent incorporation into relevant documentation so that there is no direct or indirect spreading of invasive plants.

Comment 6: During the construction of R7 the soil substrate will be exposed in many locations (due to excavations, fills, destruction of vegetation by passing trucks etc.) The exposed places are an ideal space for expansion of the invasive species of plants. Therefore a very important measure will be prevention of their expansion by sowing grass mixtures and planting of local tree species.

Reply 6: Acceptable with subsequent incorporation into relevant documentation so that there is no direct or indirect spreading of invasive plants.

Evaluation of the variants of the proposed works

The five variants of the proposed works were reviewed in line with the scope of assessment determined by the Ministry of Environment SR under Section 30 of the Act dated 21 May 2012 in the following variants:

- Zero variant - the status, which will occur if the proposed works are not carried out.
- Variants assessed in the plan – variant A1 – (red), variant A2 - (violet), variant B – (blue) and variant D – (green).
- Variant commencing at crossing of D4 and road I/63 continuing SW with connection to variant D or C – new variant connecting variant D – (green) assessed in the plan and variant C – (green) assessed as a part of the structure: "Expressway R7 Bratislava - Dunajská Lužná" marked as C2.
- In addition to the aforementioned variants the Assessment Report also reviewed the zero variant - the status, which will occur if the proposed works are not carried out.

Individual variants were assessed from the viewpoint of the environmental impact, taking into account their economic and technical indicators, to the extent set by law. Assessment of the alternative solutions has been carried out based on 22 criteria from the perspective of a comprehensive environmental impact assessment of the works, the existing and prospective traffic requirements and their impact on the residents of the affected residential areas.

The multi-criteria assessment was used for comparison of the variants of the proposed works under review . Variants were assessed using the following criteria:

1. Investments Costs
2. Length of route
3. Technical requirements of structure – length of bridges
4. Technical requirements of structure – earth works
5. Regional transport connections
6. Reclamation of facilities
7. Noise burden for population
8. Immission burden for population

9. Intervention in the urbanised area
10. Intervention in the technical infrastructure
11. Intervention in the protective zones of oil pipelines
12. Compliance with LUPD of municipalities concerned
13. Passage through the sites of reclaimed
environmental burdens
14. Permanent agricultural land required
15. Permanent forest land taking required
16. Surface water threat
17. Groundwater supplies threat
18. Change in the landscape scenery
19. Intervention in TSES elements
20. Intervention in protected areas
21. Intervention in NATURA 2000 sites
22. Intervention in RAMSAR elements

It clearly follows from the comparison of the variants and weights that the most significant criteria for selecting the optimal variant was intervention in protected areas and elements, changing the landscape scenery, threat to supplies of ground water, threat to surface water, permanent taking of the forest land, permanent taking of the agricultural land etc. In order to set the weights of the individual criteria the author of the Assessment Report used the grading method and involved the general public, professionals and residents of the territory concerned into the weight setting process.

The ranking of variants according to the results of the multi-criteria assessment for expressway R7 in section Bratislava Ketelec - Bratislava Prievoz :

Ranking 1. Variant A 2 (violet)

Ranking 2. Variant A1 (red):

Ranking 3. Variant C2 (orange):

Ranking 4. Variant D (green):

Ranking 5. Variant B (blue):

It follows from the comparison that variant A 2 has the following advantages:

- the shortest route of expressway R7 in the section concerned,
- the lowest investment costs,
- the shortest length of noise barriers,
- compliance with LUP of Bratislava self-governing region,
- compliance with LUPD of the Capital City SR Bratislava,
- taking less agricultural land required when compared to variants B and D,
- more acceptable corridor from the viewpoint of landscape scenery,
- when compared to variants B, D and C2 it will take over most the traffic from the existing road network (I/63, Slovnaftská ul.),
- from the viewpoint of safety aspects and risks of construction and operation of the structure it is the best and optimal option for leading the corridor of the line structure (when compared to variants B, D and C2 -where (east of Slovnaft) it would impede the construction of hydraulic curtain).
- Prevention of the major industrial accidents (PMIA) – explosion caused by OS in the premises of Slovnaft represents real threat. Protective zone of Slovnaft – variants A1 and A2 are further from the explosive operations.
- NATURA 2000 (table) – for example European fire-bellied toad (frog) and common vole – moderate impact is anticipated, white-tailed eagle, greylag goose – moderate impact is anticipated

The route runs outside the site – impact of noise and light from the vehicles. Variant A1 and A2 – routing will not have

- significant impact on these sites. Protection of NATURA 2000 sites – the noise barrier and wildlife crossing are planned by the western edge touching the NATURA 2000 site.
- Extract from LUPD (binding) – valid 2007 LUP of the city (as amended by ZaD) includes western routing; LUP was approved by the SEA process (under Act No. 127/1994 Coll. on Environmental Impact Assessment).

Disadvantages of variant A2 are as follows:

- the highest acreage of forest land to be taken in the territory concerned,

- the route crosses the peripheral part of proposed special protection area SKUEV0295 Biskupické luhy in the length of approx. 130 m,
- higher technical requirements of the structure,
- the greatest length of the bridge structures.

Proposed variants were assessed in the studies annexed to the Assessment Report:

- Emission Study, Inžinierske služby, s.r.o., 2013
- Noise Study, Inžinierske služby, s.r.o., 2013
- Special Review and Assessment of the Safety Aspects and Risks of Construction and Operation of Expressway R7 in the Vicinity of premises of Slovnaft, a.s., RISK CONSULT, s.r.o., 2013
- Assessment of Structure's Impact on the Territory of NATURA 2000 System, EKOJET, s.r.o., 2013.

In the EIA process under the Act those environmental impacts were assessed, which could be anticipated in this phase.

Conclusion

It follows from the results of the environmental impact assessment of the proposed works that no significant adverse impacts on the territory are anticipated, which could result in approximating or exceeding a set of environmental requirements arising from legal regulations that must be complied with at a specified place and time. Potential adverse effects can be eliminated by preventive protective measures. From the perspective of the potential risks the adverse effects are considered to be a potential threat to the quality of air, soil, habitats, groundwater and surface water in the case of unforeseen events (emergency situations, leakage of hazardous substances into the unsecured environment). Prevention, hindrance, elimination and removal of the potential consequences of accidents will be the subject-matter of solutions and measures to be dealt with in the subsequent phases of the project preparation concerning the proposed works as well as of the contingency and operational plans.

Identified impacts achieve a level of acceptable impacts on individual components of the environment that can be mitigated by appropriate technical or organisational measures.

Recommendation of the proposed works can be justified by the following facts:

- The proposed line structure is in line with the strategic documents at regional and local levels.
- Proposed works are in line with LUP of the Capital City Bratislava
- After assessment of the interventions of the individual variants of the proposed structure with the borehole system and functionality of hydrological protection of groundwater system (HPGW), Slovnaft states that the variants B, C2 and D are unacceptable, because their performance will hinder operation of the facilities in the northern part of the hydraulic curtain's outer line.
- Because the HPGW system plays an important role in protecting the groundwater source of PWA Žitný Island, it is recommended constructing variants A1 and/or A2, which do not have any significant impact on the system.
- Safety and fluency of traffic on the entrance to the Capital City of the Slovak Republic Bratislava will be increased and traffic will be unloaded in the traffic leading towards Prístavný most and towards Apollo bridge.

- The proposed line structures will not considerably affect the areas of nature and landscape protection.
- Construction of the proposed works is achieved by mitigating the negative impacts of car traffic on the residents and the environment.
- The overall technical solution and designed parameters are proposed in order to minimise the impact on the environment, which take into account all applicable legal regulations.
- Construction of the proposed works will not result in violation of the environmental standards concerning the environmental quality.

From the viewpoint of technical and technological assessment of the works concerned the entities involved in the assessment process presented concordant opinion on construction of the proposed works with certain comments. Comments of all authorities in the assessment process are reflected in chapter VI. clause 3. of this Final Opinion.

In the course of the assessment all anticipated impacts of the proposed works on the environment were considered as described in the Assessment Report and expert appraisal elaborated by an expert. All risks of the proposed variant from the aspect of the impacts on the environment, protected areas and health of residents were considered, based on which it was proved that the proposed works can be constructed in the recommended variant subject to compliance with measures to minimise and eliminate the negative impacts and implementation of standard precautions during construction and operation of the line structure.

Positive impacts

The positive impacts of the proposed works include:

- improved permeability and quality of the source (target) traffic on the entrance of the Capital City of the Slovak Republic,
- improvement of the environment in the immediate vicinity of the existing road I/63 and/or Slovnaftská ul. (decreased noise, immissions, increased safety, decreased accident rate),
- traffic connection of Bajkalská Str. and/or Prístavná Str. for the proposed structure of D4 in section Bratislava, Jarovce - Ivanka pri Dunaji, north,
- significant unloading of traffic towards Prístavný and Apollo bridges,
- connection of Slovnaftská ul. and Prístavná ulica will result in improved distribution of the traffic in the cargo port of Bratislava.

From the viewpoint of the purpose the proposed works and its nationwide meaning it can be said that the positive contribution of the line structure will substantially outreach any negative impacts.

The new corridor of R7 at the section under review will take over the traffic from the existing road I/63, which will result in increased safety and fluency of traffic at the entry to the Capital City of the Slovak Republic Bratislava. The structure will contribute to the significant unloading of the traffic and/or reduction in transits towards Prístavný most and Apollo bridges.

Based on the comprehensive assessment of the proposed works, presented opinions as well as the condition of the environment in the territory concerned, the anticipated positive and negative impacts of the proposed works on the individual components of the environment and proposed measures to mitigate its possible negative effects, it is recommended constructing the expressway R7, Ketelec Bratislava - Bratislava Prievoz in the variant solution designated as variant A2 (violet).

5. The desired range of post-project analysis

The purpose of the monitoring and information system is to obtain by monitoring and assuming the data from the existing information sources the data on the impacts of the proposed works on the environment and process such information.

To verify the degree of conformity between the actual and anticipated impacts of activities on individual components of the environment the following scope of post-project analysis is advised:

1. Ensure regular expert comparison of all projected impacts listed in the Assessment Report on the proposed works with the actual situation to the extent and within the time limits specified by the competent permitting authority. In the case any negative deviations from the anticipated status are detected, implement measures to ensure that the conditions specified in the approval procedure and set in the decision are met.
2. Propose inspection of compliance with the determined monitoring conditions determined and approved in the further structure permitting procedure.
3. Examine compliance with the conditions set for the procedure concerning construction permit and permit to use during the construction and operation in line with the legal regulations and technical standards through the authorities and organisations concerned.
4. Conduct staff training focused on waste management and resolving emergency situations and emergency conditions.
5. During construction and operation of the proposed works ensure workplace health and safety and fire protection.

Ensure implementation of the post-project analysis process characterised as an interactive feedback and adapting to changing circumstances in accordance with the knowledge generated at regular intervals, but at least at intervals to be determined by the decision of the competent state authority.

Based on an operative evaluation of monitoring results pursuant to Section 39 par. 3 of the Act, the proposer is required if it is found out that the actual impacts of the activity assessed under the Act are worse than stated in the report for the proposed works, provide for measures to reconcile the actual impact of the impacts listed in the assessment report in accordance with the conditions specified in the decision permitting the works. In the decision permitting the use of the structure under Act No. 50/1976 Coll. Land Use Planning and Construction Rules (Construction Act) as amended, the permitting authority should inform the proposer of such obligation.

6. Notice for the permitting authority

In the subsequent procedures concerning permit for the works under the special regulations commenced after 30 April 2010 under provisions of Section 24a), par. 1 of Act No. 24/2006 Coll. on Environmental Impact Assessment as amended by Act No. 145/2010 Coll., they are a party to the procedure as a general public, including the natural persons who submitted written statement under Section 23, par. 4, Section 30, par. 5, Section 35, par. 3 of the Act, from which their interest in the decision follows.

Under Section 27a the general public concerned has the right to actively participate in preparing and permitting the proposed works throughout the course of the impact assessment process until a decision on proposed works is issued, including the submission of a written opinion under Section 23, par. 4, Section 35, par. 2 and 3, participate in the subsequent permit procedure subject to the conditions set out in Section 24a to Section 27, submit the comments under Section 30, par. 5, participate in consultations and the right to participate in a public discussion on the proposed works.

K The following natural and legal persons commented on the plan, scope of assessment and Assessment Report:

1. Ing. Eva Takáčová, Stromová 3, 900 42 Dunajská Lužná
2. Klára Hornišová, Lipského 11, 841 01 Bratislava
3. SPARKS, s.r.o., Gagarinova 7/a, 821 03 Bratislava

4. SOS/BirdLife Slovensko, Mlynské Nivy 41, 821 09 Bratislava
5. Úsvit pri Dunaji, PD – Dunajská Lužná, Košariská 192/42, 900 42 Dunajská Lužná
6. Jana Turanská, Čiližská 6, 821 07 Bratislava
7. Ing. Oldřich Michera, CSc., Perlitová 1804/20, 140 00 Praha 4, ČR
8. SLOVNAFT, a.s., Vlčie hrdlo 1, 824 12 Bratislava
9. Bratislava Freight Village, a.s., Panenská 6, 811 03 Bratislava
10. GEOTest, Bratislava, spol. s r.o., Stavbárska 27, P. O. Box 4, 820 08 Bratislava
11. Bratislavské regionálne ochrannárske združenie (Bratislava Regional Protection Association), Godrova 3/b, 811 06 Bratislava Záhradkárska osada (Garden Area) Bratislava, Vlčie Hrdlo 2-16
12. Martina Dobiášová, Nové Záhrady VII/18, 821 05 Bratislava
13. Klára Hornišová, Lipského 11, 841 01 Bratislava
14. Municipality Dunajská Lužná, Jánošíkovská 466/7, 900 42 Dunajská Lužná

6.1 Validity of the Final Opinion

The Final Opinion is valid for 7 years from the date it is issued. The Final Opinion shall not become invalid if during its validity period the procedure concerning location or permission of the structure under special regulations is initiated (e.g. Construction Act).

VII. CONFIRMATION OF DATA CORRECTNESS

1. Authors of the Final Opinion

The Ministry of Environment of the Slovak Republic
Section of Environmental Assessment and Management
Department of Environmental Assessment
Ing. Milan Luciak

in cooperation with
Regional Public Health Office, Bratislava
with its registered office in Bratislava

2. Confirmation of data correctness

RNDr. Gabriel Nižňanský
Head of the Department of Environmental Assessment
The Ministry of Environment of the Slovak Republic

3. Date of Final Opinion

Bratislava 18 November 2013

Disclaimer

This is an English translation of a document that was originally produced in the Slovak language. While we have exercised utmost care to make this translation accurate, it may contain typing or translation errors. Therefore, always consult the Slovak original before making decisions on the basis of this translation.

The name of this document in Slovak is *Záverečné stanovisko*. The file name has not been changed.

We hereby confirm that the European Bank for Reconstruction and Development shall have no responsibility for the translated content.

Project Implementation Services, spol. s r. o.
Consultant under Consultancy Contract C31934