EXPRESSWAY M 86,
SZOMBATHELY - CSORNA SECTION
ENVIRONMENTAL PERFORMANCE ASSESSMENT

EXECUTIVE SUMMARY

Made by:

„UTIBER – UNITEF ’83” Consortium

Employer:

Nemzeti Infrastruktúra Fejlesztő Zrt.

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1.

Introduction

Under an assignment by National Infrastructure Development Zrt and managed by the consortium-leader UTIBER Kft., „UTIBER-UNITEF Consortium" (consortium member: UNITEF'83 Műszaki Tervező és Fejlesztő Zrt.) has prepared the Environmental Performance Assessment of M 86 Expressway, Szombathely-Csorna section.

The environmental licensing of the various sections took place in 2005, 2008 and 2009, and in the Szombathely - Szeleste section, a two-step environmental procedure did not take place and the licences pertain to a main road – perspective expressway (see: Table 3.1 on the licences), therefore an Environmental Performance Assessment has become necessary because of the changes in legislation and in the technical specifications and in order to ensure compliance with EU regulations.

We have prepared the documentation by properly applying Articles 73-79 of Act LIII of 1995 (environment protection act) and in accordance with the provisions of Regulation 12/1996. (VII.4.) KTM on the professional criteria necessary for carrying out environmental audits and on the mode of authorisation; and on the requirements for the contents of the audit documentation.

Within the frame of the Performance Assessment, in addition to a summary of the environmental impacts to the road section affected by the design task, we described in a separate documentation the preparation of the section, the environmental and building licensing process and results, as well as we attach an impact assessment documentation with the surveying of the Natura 2000 areas affected by the route of the expressway.

2. Preliminaries

The transport situation of the West-Transdanubia region is basically determined by its situation adjacent to four countries (Slovakian, Austrian, Slovenian and Croatian border sections) as well as by its settlement structure. This region is the gate of our country to Western Europe in transport terms, as the most important road-, railroad- and water-flow axes enter our country in this region to cross then the territory of Hungary (60% of the road traffic, especially of its freight traffic leaves the country through this region).

This region is affected by three Helsinki transport corridors: one of them is the No.IV pan-european transport corridor connecting the western part of Europe with the Balkans, the other one is Corridor No.VII marking the waterway of River Danube, and the third one is the No.V. pan-european transport corridor, and one of its branches, corridor V/B. Parts of Corridor IV. are the M 1 and M 15 expressways and the Budapest-Hegyeshalom railroad line; while parts of Corridor V. are the future M 7 motorway ensuring connection with Croatia at Letenye, and M 70 expressway ensuring connection with Slovenia at Tornyiszentmiklós. The railroad branch of the same transport corridor is the Boba-Zalaegerszeg-Bajánsenye-country-border (Hodos) line.

These transport corridors do not serve for the north-south traffic flow routes developing dynamically. In the West-Transdanubia region, a strong, north-south transport corridor, the M 9 and M 86 expressways and a high-quality railroad line are missing, which should have outstanding importance in terms of both the inner cohesion of the region and for the Baltic-Adriatic relation, while it would also act as an interconnection for the aforementioned pan-european corridors.

The road infrastructure of the region is characterized by the fact that one-sixth part of the national road network is situated here; the density of roads is the highest here among the regions (because of the small-village settlement structure), but at the same time the

composition of roads is unfavourable: only 6,8% of the roads belong to the motorway- or first class main road categories. The motorway crossing West-Transdanubia stretches east-west only at the northern and southern part of the region. The most acute problem of the region is the lack of a north-south expressway, causing tensions in the region because of the dynamically growing north-south transit traffic in the first place (60% of the road traffic, especially of freight traffic leaves the country through this region). The ratio of road lengths compared to the territorial ratio of the region is higher than the national average (due to the small-village settlement structure as well), which is also marked by the road density higher than the national average. Accessibility of the towns of the region is made more difficult by the fact than seven of the 28 towns are not touched by national main roads.

Although the supply of the region by community road transport can be considered good, but the wearisome supply to small-village regions mostly in dead-end situations, with low transport volumes represents a significant social-policy problem.

It influences the public services' (education, health, social) supply quality and thus has a high impact on the inhabitant-retaining power of these regions. In the environment of large towns, the agglomerational transport (commuting) is the most characteristic feature.

The route in question is included in the list published by Government Resolution 1004/2007. (I.30.) on the indicative list of transport projects planned to be implemented between 2007 and 2013, under the name: „Main road no.86., Szombathely-Csorna section (perspective M 86)". This design section is included by the Annex of Act LXVIII of 2007 on the amendment of Act CXXVIII of 2003 on the public interest and on the development of the expressway network of the Republic of Hungary, and the name of: „M 86 between Szombathely and Csorna, motor road, 2 x 2 lanes". This project is included by the Transport Operative Programme (KÖZOP) projects.

In economic, social and transport terms, the M 86 expressway, as part of the European road network, realizes a transport development need determined a long time ago, which is going to be beneficial for both the national road network and for the region.

The spatial order of transport infrastructure networks of national importance is regulated by Act XXVI of 2003 on the National Regional Development Plan being in effect still today.
Supplement 1/1 to the Act includes the following:

M 85 expressway

Győr region (M 1) - **Csorna** - Nagycenk - Sopron - (Austria)

M 86 expressway

Szombathely region - Csorna - Mosonmagyaróvár region (M 1) (part of the TEN-T network)

For the Szombathely-Vát section of Main road 86, the construction licensing plan was completed in 2006 (general designer: Tetthely Kft., designer: Unitef-Szalamandra Mérnöki Iroda Kft., design number: 0330), which received the licence on 15 January 2007 (licence number: 20/2/2007) from the West-Transdanubian Regional Directorate of the National Transport Authority. The construction works plans were made by UVATERV Road- and Railroad Designer Zrt. in March 2009, and the construction works of the section is being under way. The construction of the embankments has started in the whole section, the bridge-abutments are standing, the tubular bridges have been put to their place, and the majority of public utilities' replacements has been completed. The section is expected to be ready by June 2014.

For the Vát-Szeleste bypass section of main road no.86, the Preliminary Investigation Documentation (EVD) was made by UNITEF-83 Rt. in 2003, which investigated the

environmental impacts of the section, as a secondary main road in its first-phase condition, and as part of the expressway network perspectively. The approval under number 2402/28/2003 was given by the West-Transdanubian Environmental, Nature-conservation and Water Inspectorate (West-Transdanubian KTVF) in November 2003. A new EVD was submitted in October 2004, as in the period that passed until that date, several such acts and government regulations were published that supported the fact that this bypass road was not going to become a part of the expressway network even perspectively. In the new EVD, the route was investigated as a secondary main road. The West-Transdanubian KTVF released the environmental licence for the section under number 517/8/2005 on 4 March 2005. For the licensing plan under design number 1955, made by UNITEF ’83 Rt. in 2004, the Vas County Transport Inspectorate released a building permit under number VA/UV/NS/A/70/14/2005. Construction: between 89+980 and 93+120 km s.: 2 x 2 lanes; between 93+120 and 98+220 km s.: 2 x 1 lane. In June and October 2006, the Unitef-Szalamandra Engineering Office Kft. prepared the works designs (design number: 2387 (428)). Because of the changes taking place in the meantime, another EVD was submitted in February 2008 (UVATERV Zrt., design number: 51.979/501/507.) to the West-Transdanubian KTVF as regards the 92+900 - 98+300 km s. section, in which the environmental impacts of the all 2 x 2 lanes construction was investigated. The West-Transdanubian KTVF released its resolution under number 153-10/22/2008. on 29 May 2008, in which it accepted the contents of the EVD. In 2008, also the building permit was modified (resolutions no.2212/56/2008., 2212/59/2008.). The works designs for the 93+770 - 98+300 km s. section were made by UVATERV Zrt. (under design number 51.979/501/507) in January 2009. The Vát bypass section was brought into operation in May 2009, while the Szeleste bypass section in December 2010.

For the Szeleste-Győr-Moson-Sopron County Border of the M 86 expressway, UNITEF’83 Engineering Designer and Developer Zrt. made the EVD, which received a resolution under number 14/145-35/2008 from the National Environmental, Nature-conservation and Water Inspectorate (OKTVF) (in the resolution the authority prescribed the submittal of an environmental impact assessment). On the basis of the Environmental Impact Assessment made by UVATERV Road- and Railroad-Designer Zrt., this section received an environmental permit from OKTVF under number 14/1480-28/2009., in June 2009. The licensing and the works designs of the section were made by the ÚT-TESZT-UNITEF Consortium (ÚT-TESZT design number: 634, UNITEF design numbers: 2637, 2691). The National Transport Authority released his building licence for the section under number UVH/UH/29/79/2011 in October 2011. The works designs were completed in December 2011. About 80% of the properties occupied by the section has already been expropriated. The schedule of the works of the section has been modified to a certain extent, compared to the section limits included by the permits: first the I/1 A. section of 98+300 - 105+800 km s will be completed, where the archaeological pilot survey has already been completed; the construction works can start in summer 2013, whose probable completion date is 2015. The 105+800 - 139+165 km s. section will be built in one phase: the archaeological pilot survey and the preliminary survey is expected to be completed by the first half of 2014, while the expected completion of the building works is 2016.

For the Győr-Moson-Sopron County Border - Csorna section of the M 86 expressway, ÚT-TESZT Kft. made the EVD, which received a resolution under no. 14/2285-17/2008. from OKTVF (in the resolution the authority prescribed the submittal of an environmental impact assessment). On the basis of the Environmental Impact Assessment made by UTIBER Kft., this section received an environmental permit from OKTVF, under number 14/1061-29/2009. in May 2009. The licensing and the works designs of the section (County-border – Csorna bypass section) were made by the ÚT-TESZT-UNITEF Consortium (ÚT-TESZT

design number: 634, UNITEF design numbers: 2637, 2691). The National Transport Authority released his building licence for the section under no. UVH/UH/6/43/2011. in September 2011. The works designs were completed in December 2011. The properties occupied by the section have already been expropriated. The 105+800-139+165 km s. section will be built in one phase: the archaeological pilot survey and the preliminary survey is expected to be completed by the first half of 2014, while the expected completion of the building works is 2016.

For the Csorna bypass section of the M 86 expressway, ÚT-TESZT Kft. made the EVD, which received a resolution under no. 14/2285-17/2008. from OKTVF (in the resolution the authority prescribed the submittal of an environmental impact assessment). On the basis of the Environmental Impact Assessment made by UTIBER Kft., this section received an environmental permit from OKTVF, under number 14/1061-29/2009. in May 2009. The licensing designs of the section were made by ÚT-TESZT Kft. (design number: 572), for which the National Transport Authority released the building licence of the section under no. KU/KF/28/59/2010 in March 2010. The construction works tender designs were completed in December 2012. The properties occupied by the section have already been expropriated. In the section at the moment a complete archaeological survey is being done, which is expected to be completed in summer 2013. The prospective completion date of the construction works is mid 2015.

This route is part of the E 65 European transport corridor, therefore the route needs to be assessed uniformly as the M 86 expressway.

3. Project description

The road section to be built will be implemented in a new route near main road no.86, in the territory of Vas and Győr-Moson-Sopron counties, between Szombathely (East) town and Csorna town (Csorna East), by touching the administrative areas of the following settlements:

Szombathely, Vassurány, Vép, Nemesbőd, Vát, Ölbő, Szeleste, Répcelak, Uraiújfalu, Nick, Vámoscsalád, Hegyfalu, Pósfa, Vasegerszeg, Rábakecöl, Vásárosfalu, Beled, Magyarkeresztúr, Zsebeháza, Szil, Sopronnémeti, Szilsárkány, Dör, Csorna.

The planned route runs mainly on agricultural lands (ploughlands, orchards, grazing lands), and touches forestlands too. It bypasses the settlements to the required extent. The majority of the terrain is flatland -type.

Design class and design speeds of M 86 expressway

Planned road	Design class	Environmental circumstance	Design speed
M 86, currently main road no.86 (80+775-81+485)	K.II.	A.	90 km/h
M 86, currently main road no.86 (81+485-98+300)	K.II.	A.	110 km/h
M 86 expressway	K.II.	A.	110 km/h

Horizontal and vertical alignment

The beginning of the design section (80+775 km s.) connects to the beginning of a main road bypass built in Szombathely-Zana area. The existing 2 x 1 lane main road 86 passes by Szombathely-Zanat at north; this road is widened to a four-lane road within the frame of this project up to 83+880 km s., at the left side according to its segmentation. The section to be widened to 4 lanes crosses two small watercourses: Bogácai-ér and Kozár-Borzó patak. After the beginning of the section to be built on a new route, it crosses watercourse Perec-patak, then, in 84+165 km s. it crosses the existing main road 86 with an underpass for public roads. From this point on, the route runs nearly parallel with main road 86, at the southern side thereof. After a crossing with watercourse Surányi patak, at 85+861 km s, there is a grade separated junction with road 8445, with an underpass for public roads. After the junction, the road crosses a number of small watercourses: Cséri-patak, Sormás-patak, Rátka-patak, Surányi-patak.

At 89+980 km s, the Vát bypass section (that has already been brought to operation) of the main road begins. The route passes by Vát at south, crossing watercourse Hosszú-víz, then in 93+230 km s. it crosses main road 88 by a grade separated junction. In an about 1-km long section before the junction, a Natura 2000 area (Váti gyakorlótér) stretches at both sides of the road. After the junction, it crosses watercourse Kőris-patak, then at 94+540 km s., the Szeleste bypass section begins, which has also been brought into operation. This bypass section has a 2 x 2 lanes construction up to 98+300 km s., then it gets reconnected to main road 86 by a 2 x 1 lane interconnecting road of about 300 m length. The route passes by Szeleste at south and east; in 96+660 km s. it crosses the road 8446 with a grade separated junction, then it crosses watercourse Szeleste-patak.

After the already built section, the route of the planned M 86 expressway crosses first the watercourse Béresdombi-patak, then the Csorna-Szombathely MÁV railway line, and watercourse Kőris-patak, then between Hegyfalu and Zsédeny at 104+995 km s. it has a grade separated junction with main road 84. The route runs ahead between Vámoscsalád and Uraiújfalu, where a complex rest area will be built at both sides in 111+200 km s. Between Répcelak and Nick, the route crosses road 8447 by a grade separated junction in 115+612 km s. After this point it crosses watercourse Kőris-patak, then in 119+168 km s. it reaches watercourse Kis-Rába csatorna (canal) representing the county border; the watercourse is a part of the Rábaköz Natura 2000 area.

In 119+670 km s., the expressway crosses the canal Répce-árapasztó csatorna. The next grade separated junction, with road 8611 is situated in 123+554 km s., between Rábakecöl and Beled. After the junction, the route passes by Vásárosfalu settlement at north, then crosses the Keszeg-ér watercourse twice. After Beled, in 127+747 km s., it crosses the planned correction of main road 86 with an underpass. In the area of Magyarkeresztúr (east from the settlement) the route turns to become parallel with the Csorna-Szombathely railway line, led in a 300-400 m distance from the railway. It again crosses the watercourse Keszeg-ér, a grade separated junction will be built with road 8605, in 132+704 km s., between Zsebeháza and Magyarkeresztúr. In the 135+250 km s., a complex rest area will be built perspectively at both sides (Rábaköz rest area). In the area of Sopronnémeti, the route crosses Keszeg-ér again, then touches the Szilsárkányi-gyepek natural area between 138+515 and 138-860 km s.

In the area delineated by an existing in-level junction between main road 86 and road 8601, as well as by watercourse Keszeg-ér, in 139+422 km s., a grade separated junction of M 86 and main road 86 will be constructed. After the junction, the route crosses Keszeg-ér, then runs straight towards Csorna. The (southern) feeder junction of the planned M 85-M 86 expressways is situated at 142+324 km s. The common section of the M 85-M 86 expressways crosses again Keszeg-ér, then crosses two railway lines by overpasses: the

existing Csorna-Pápa railway line and the GySEV railway line. In the area of the 147+424 (M 85 22+000) km s., the (northern) triangle-shape feeder junction of M 85-M 86 expressways will be constructed. After this junction, the route of the planned M 86 expressway runs in north-south direction, crosses the Keszeg-ér watercourse again, then at north-east from Csorna town runs parallel with the existing Csorna-Hegyeshalom MÁV railway line, nearly 300 m far from it. In accordance with the design disposition, from 148-550 km s. on, the M 86 expressway has a 2 x 1 lane construction: the left carriageway will be implemented. At the end of the design section, the reconnection to main road 86 is ensured by an about 800 m long interconnecting branch. The planned reconnections to the motor road and to the main road have been designed with view to the network development points of view, and for a better scheduling perspectively. The layout design is in compliance with those ideas according to which there is no development in the northern direction, or a 2 x 1- or a 2 x 2 -lane continuation is ensured.

The planned interconnecting branch (reconnection to main road (86) has got a 2 x 1 lane construction, and crosses by an overpass the existing Csorna-Hegyeshalom MÁV railway line. The design of the structure is suitable for perspective extensions: another, also 2 x 1 lane structure can be built near it, and the crossing for a dirt road parallel with the railway line is also ensured beneath the overpass. The planned interconnecting branch connects to main road 86 at the end of the design section, with an in-level roundabout junction.

The whole length of the planned M 86 expressway: 68,825 km.

The vertical alignment of the expressway has been designed in compliance with the parameters belonging to the given design class, and by taking into consideration the proposals set out by the geotechnical expert opinion. The entire length of the planned road runs over a flat terrain, on a low embankment. High embankments were needed at the crossings with railway lines, watercourses, or roads, and to ensure the structure clearance for wildlife crossings.

The carriageway-level of the existing main road 86, and the application of the parameters belonging to the vertical alignment in accordance with the design speed were both definitive points of view for determining the vertical alignment of the Szombathely-Vát section to be turned into a four-lane road.

Cross-sectional design

A dual-carriageway construction, with 2 x 2 lanes, 3,50 m width for a traffic lane. The crest width is 25,60 m, the emergency lane (service lane) should be made with a 3,0 m wide stabilized hard shoulder.

Between 80+775-81+350 km s., the separation will take place by double continuous white lines.

In the common M 85 – M 86 section, the road is constructed with 2 x 3 lanes.

Structures

Section	Overpass above watercourse	Overpass above railway lines	Overpass above public roads	Overpass under bicycle roads	Underpass under public roads	Underpass under dirt roads	Underpass under wildlife crossings	Structures total
M 86, current main road	13	-	-	-	2	3	-	18

86, Szombathely–Vát section (under construction)								
M 86, current main road 86, Vát–Szeleste bypass (completed already)	3 (out of which 1 is suitable for games to pass)	-	-	-	2	1	-	6
M 86 exp.w., Szeleste-GyMS County Border	8 (out of which 1 is suitable for games to pass)	1	-	1	4	6	2	22
M 86 exp.w. GyMS County Border – Csorna bypass section	7 (out of which 2 is suitable for games to pass)	-	-	-	7 (out of which 1 is led also beneath a bicycle road)	3	1	18
M 85-M 86 exp.w. Csorna bypass section	5 (out of which 1 is a dirt road, 1 stretches above a public road too).	4 (all of them is lead also above a dirt road)	4	-	3	1	-	17

Rest areas, maintenance centres

Planned rest areas:

- 89+550 km s.: Simple rest area at the left side
- 111+200 km s.: Complex rest area at both sides
- 135+250 km s.: Complex „Rábaköz" rest area at both sides

Planned maintenance centre:

- 85+800 km s.: Vépi Maintenance centre
- 139+500 km s.: Szilsárkány Maintenance centre

Traffic figures

For the Szeleste – Csorna section of the M 86 expressway, FŐMTERV Zrt. carried out a uniform traffic inspection in 2010 for the following up of the cumulative impacts. For the Environmental Impact Assessment, this investigation was supplemented for the Szombathely – Szeleste section.

		Current (2013)		Perspective (2030)	
Road	**Section**	**ÁNF (U/day)**	**ÁNF (V/day)**	**ÁNF (U/ day)**	**ÁNF (V/day)**
M 86	M 87 Szombathely - Zanat (86 road)	-	-	22796	20175
M 86	Zanat (86 út) - M 9 junction	-	-	22871	20297
M 86	M 9 junction - Vát junction	-	-	24464	16534
86-M 86	Road 86 - M 86 connection Vát	14407	9098	-	-
M 86	Vát junction - Szeleste junction	8829	3870	17208	9911
M 86-86	M 86 Szeleste - Road 86 connection	8247	3404	-	-
M 86	Szeleste junction - Hegyfalu junction	-	-	16463	9382

M 86	Hegyfalu junction -Répcelak junction	-	-	19881	12372
M 86	Répcelak junction - Beled junction	-	-	19830	12213
M 86	Beled junction - Zsebeháza junction	-	-	24556	16588
M 86	Zsebeháza - Szilsárkány junction	-	-	23508	15569
M 86	Szilsárkány junction - M 85 Csorna South junction	-	-	21650	13477
M 85	Farád junction - M 86	-	-	23287	14186
M 85-M 86	M 85 Csorna South - M 85 Csorna East junction	-	-	44787	27542
M 85	M 86 Csorna East junction. - Road 85 junction	-	-	32346	19954
M 86	M 85 Csorna East junction - Bősárkány junction	-	-	11709	6392

4. Preparedness of the project

4.1. Environmental procedures

The environmental licensing of the construction of the Szombathely - Csorna section of M 86 expressway was conducted by several procedures. Breaking down to sections was necessitated by the differences in the replacement of the overloaded road sections, so those sections were given priority in the order which give rise to the highest traffic through settlements, by taking into consideration also the connection opportunities and the available costs.

Main road 86 Szombathely – Vát section (80+775 – 90+000 km s.)

Neither preliminary, nor detailed impact assessment was made for the Szombathely - Vát section, because according to the Government Regulation 314/2005. (XII.25.) on the environmental impact assessment- and the integrated pollution and prevention control licensing procedures being effective in 2007, at the time of the design work, the construction of a secondary four-lane main road, and the extension to four lanes under 10 km uninterrupted length of new carriageway sections did not belong to those activities where the impact assessment was mandatory. The environmental work part was submitted as part of the construction licensing plans to the transport authority and, through it, to the environmental authority. Pursuant to Point 87/a of Annex 3 to the Regulation being in force today, environment impact assessments must be carried out for the construction of national public roads if the relevant supervisory body decides so. According to this provision, a preliminary assessment procedure should be carried out for this section currently.

Main road 86 Vát - Szeleste bypass construction (90+000 – 98+550 km s.)

2 x 2 lanes: 90+000 – 93+120 km s. (up to the main road 88 junction)

2 x 1 lanes: 93+120 – 98+550 km s.

Procedure: Preliminary assessment procedure

Employer: Vas County State Public Road Management Kht.

Author: UNITEF ’83 Engineering Designer and Developer Zrt. – October 2004

Licensing authority: West-Transdanubian Environmental, Nature-conservation and Water Inspectorate

Permit number, release date: 517/8/2005. - 4 March 2005

Permit amendment number, release date: 6839-1/3/2006. (only the person of the licence-holder was changed) – 22 September 2006.

Reason: - Pursuant to Government Regulation 20/2001, Annex 1, Chapter „B", Clause 88. – the road may be classified in the national public road network category when it crosses a forestland larger than 50 ha.

The licensing authority established in the course of the preliminary assessment procedure that, on the basis of the findings of the environmental impact assessment submitted, the planned activity does not harm the environment if the stipulations and environmental provisions set out by the released resolution are met.

Hungary became a member of the European Union in 2004, and the Government Regulation 314/2005. (XII.25.) on the environmental impact assessment- and on the integrated pollution and prevention control licensing procedure, that takes into consideration Council Directive 85/337/EEC too, came into effect at the end of 2005 only, therefore it had not been effective at the time when the EVD was made and the permit was released. However, it would not have entailed a change, as this section would have been subject to an EVD only, pursuant to the then valid Government Regulation 314/2005. too, because it did not reach the size limits set out by Annex 1. (construction of a secondary four-lane main road, or extension to four lanes from 10-km long uninterrupted new carriageway length). Pursuant to Council Directive 85/337/EEC, Annex II, 10.e, in the case of road construction, the Member States must determine whether the road parameters necessitate an environmental impact assessment (which is anyhow a must in the case of the construction of motorways or express roads – Annex I., 7.).

Pursuant to the now effective Government Regulation 314/2005 Annex 3, Point 87/a., the construction of a national public road is an activity subject to an environmental impact assessment depending on the decision of the competent Inspectorate, so the procedure conducted in 2005 meets this provision.

It is important to note here, that for about 1 km before the junction with main road 88, this section touches the HUON 20005 Váti gyakorlótér approved Natura 2000 nature conservation area of high importance designated by Government Regulation 275/2004 (X.8.) on areas of nature-conservation purpose of European community importance. As the submittal of the plan and the release of the Regulation took place roughly at the same time, the EVD did not contain reference to a Natura 2000 area. In the concerned area, the flora and fauna of that time was surveyed according to the applicable provisions. The survey of flora and fauna was conducted in 2002, as the first EVD for the section was completed in February 2003, which received the approval under number 2402/28/2003 from the competent West-Transdanubian KTVF in November 2003. The difference between the 2003- and 2005-EVD was that while in 2003, the first phase construction of the section was assessed as a secondary main road and perspectively as part of the express road network, in 2005, pursuant to the then valid acts and government regulations, it was planned to be constructed and brought into operation as a secondary main road only. In 2005 the construction licensing plans were already completed, as the valid environmental permit had been given as early as in 2003. So it can be established that the route could be considered so to speak final at the time when the Natura 2000 areas were designated by a regulation. In order to ensure protection for the area, and in accordance with an agreement with Őrségi National Park, the original route was corrected in the design process a little bit to south, nearer to the edge of the grassland. With this solution, a considerable part of the former military drill field could have remained in one piece north from the planned road.

This section has already been built: the Vát bypass was put into operation in 2009, the Szeleste bypass in 2010.

Main road 86, Vát - Szeleste bypass construction in 2 x 2 lanes (92+900 – 98+300 km s.)

Procedure: Preliminary assessment procedure

Employer: National Infrastructure Developer Zrt.

Author: UVATERV Road- and Railroad Designer Zrt. – February 2008

Licensing authority: West-Transdanubian Environmental, Nature-conservation and Water Inspectorate

Permit number, release date: 153-10/22/2008. - 29 May 2008.

Reason: pursuant to Government Regulation 314/2005 Annex 3, Point 88. – the road may be classified in the national public road network category when it crosses a forest block larger than 50 ha.

- pursuant to Directive 85/337 EGK, Annex II., 10.e – construction of roads

In the course of the preliminary assessment procedure, the licensing authority established that in the case of a 2 x 2-lane construction, significant environmental impacts cannot be assumed, therefore a detailed environmental impact assessment procedure was not justified.

The Vát-Szeleste bypass section of main road 86 has already held an environmental permit (517/8/2005), compared to which only the cross-sectional design has changed: it became a 2 x 2-lane road from the junction with main road 88 to the end of the Szeleste bypass section. (At the time when the EVD was submitted, the construction of the 92+900-94+540 km s. has already been contracted on the basis of the earlier permit.

We would like to note here that, pursuant to the currently effective Government Regulation 314/2005 Annex 3, Point 87/a, the construction of the road with 2 x 2 lanes is also an activity subject to an environmental impact assessment depending on the Inspectorate's decision, so the procedure of 2008 was in compliance with this provision.

The Szeleste bypass section was brought into operation in 2010.

With view to the fact that, as a consequence of the implementation of the missing Szeleste-Csorna section, the Szombathely-Csorna section will be functioning as an expressway, this present Environmental Performance Assessment is intended to replace the missing Environmental Impact Assessment procedure (Government Regulation 314/2005. (XII.25.), Annex 1, 37/a) for the already completed or the currently built sections.

M 86 expressway, construction of the Szeleste – Győr-Moson-Sopron County border section (98+300-119+235 km s.)

Procedure: Environmental impact assessment procedure

Employer: National Infrastructure Developer Zrt.

Author: UVATERV Road- and Railroad Designer Zrt. – February 2009

Licensing authority: National Environmental, Nature-conservation and Water Chief Inspectorate

Permit number, release date: 14/1480-28/2009. - 30 June 2009

Permit amendment number, release date: 14/6395-28/2010. - 11 May 2011

Permit amendment number, release date: 14/6395-45/2010. (made more exact) - 28 September 2011

Reason: pursuant to Government Regulation 314/2005, Annex 1, Point 37. – Construction of expressways

- pursuant to Directive 85/337 EEC, Annex I., 7.b. – construction of motorways and express roads.

EVD: Under an assignment by the National Infrastructure Development Zrt., UNITEF '83 Engineering Designer and Developer Zrt. submitted to the National Environmental, Nature-conservation and Water Chief-Inspectorate (in November 2007) the preliminary assessment documentation of the Szeleste – Győr-Moson-Sopron County border section of the M 86 expressway for the purpose of the conducting of the preliminary assessment procedure.

On the basis of the preliminary assessment documentation and following a public hearing in January 2008 and a meeting with the participation of the notary of Nick municipality and the notary of Répcelak town municipality in March, the Chief-Inspectorate released a Resolution under no.14/145-35/2008. In the Resolution, it prescribed the submittal of an environmental impact assessment for the „D" and „F" variants.

OKTVF gave its environmental permit for the „D" route variant on the basis of the environmental impact assessment, and on the basis of the positions taken by the special authorities.

M 86 expressway, construction of the Győr-Moson-Sopron County border - Csorna section (119+235-149+651 km s.)

Procedure: Environmental impact assessment procedure

Employer: National Infrastructure Developer Zrt.

Author: UVATERV Public-Road Investor Kft. – December 2008

Licensing authority: National Environmental, Nature-conservation and Water Chief Inspectorate

Permit number, release date: 14/1061-29/2009. - 4 May 2009

Permit amendment number, release date: 14/1061-42/2009. - 24 September 2009

Permit amendment number, release date: 14/4201-27/2012. - 3 January 2013

Reason: pursuant to Government Regulation 314/2005, Annex 1, Point 37. – Construction of expressways

- pursuant to Directive 85/337 EEC, Annex I., 7.b. – construction of motorways and express roads.

EVD: In 2008, under an assignment by the National Infrastructure Development Zrt., ÚT-TESZT Kft. prepared the preliminary assessment documentation (EVD) for the Győr-Moson-Sopron County border – Csorna section of the M 86 expressway, which was submitted to the National Environmental-, Nature-conservation and Water Chief Inspectorate (OKTVF). In his Resolution no. 14/2285-17/2008 of 25 June 2008, OKTVF prescribed the submittal of a detailed impact assessment for route „A", for the „A/1" insert version thereof that crosses the narrowing-down part of the Szilsárkány grassland.

On the basis of the environmental impact assessment document and the positions taken by the special authorities, OKTVF gave the environmental permit for the implementation of the „A 1" insert version of the „A" route version.

4.2. Building licensing procedures

The building licensing of the Szombathely – Csorna section of expressway M 86 was conducted by several procedures:

from km s.	to km s.	Development	Procedure	Authority	Permit/resolution number
80+775	89+980	Main road 86, Szombathely – Vát (80+775-83+850: extension to four lanes 83+850-89+980: 2 x 2 lanes)	building licensing	NKH West-Transdanubian Regional Directorate	20/2/2007. (2007.01.15.)
			deviation from the building permit (carriageway structures, parallel dirt roads, changed service road length, rest area)	NKH West-Transdanubian Regional Directorate	2212/58/2008. (2008.08.28.)
			deviation from the building permit (amendment of the Resolutions)	NKH West-Transdanubian Regional Directorate	2212/60/2008. (2008.09.10.)
89+980	98+220	Main road 86, Vát-Szeleste bypass road (2 x 2 lanes)	building licensing (2 x 2 lanes: between 89+980 and 93+120 km s. – up to the junction with main road 88) 2 x 1 lane: between 93+120 and 98+220 km s.)	Vas County Transport Inspectorate	VA/UV/NS/A/70/14/2005. (2005.03.31.)
			modification of the building permit (changed legal successor of the building permit)	Vas County Transport Inspectorate	1370/2/2006. (2006.08.16.)
			deviation from the building permit (junction of main roads 86-88)	NKH West-Transdanubian Regional Directorate	2212/56/2008. (2008.08.25.)
			deviation from the building permit (2 x 2 lanes all to the end)	NKH West-Transdanubian Regional Directorate	2212/59/2008. (2008.08.28.)
			deviation from the building permit (amendment of the Resolutions)	NKH West-Transdanubian Regional Directorate	2212/60/2008. (2008.09.10.)
			deviation from the building permit (re-designing of the junction of roads 86-8446, due to a 400 kV power line)	NKH West-Transdanubian Regional Directorate	KA/4657-16/2009. (2009.12.)
98+300	119+200	M 86 expressway, Szeleste – GyMS County border section	building licensing	NKH Road, Railroad and Shipping Office	UVH/UH/29/79/2011. (2011.10.28.)
98+300	108+000		building licensing (national public roads, structures)	Vas County Government Office, Transport Chief Inspectorate, Roads	VA/UO/NS/B/10/130/2011. (2011.10.28.)

from km s.	to km s.	Development	Procedure	Authority	Permit/resolution number
				Department	
			building licensing (other roads, structures)	Vas County Government Office, Transport Chief Inspectorate, Roads Department	VA/UO/NS/B/10/131/2011. (2011.10.28.)
108+000	119+200		building licensing (correction of the national roads 8447 and 8449 (ök.))	Vas County Government Office, Transport Chief Inspectorate, Roads Department	VA/UO/NS/B/10/128/2011. (2011.10.28.)
			building licensing (other roads, bicycle road, structures)	Vas County Government Office, Transport Chief Inspectorate, Roads Department	VA/UO/NS/B/10/129/2011. (2011.10.28.)
119+200	139+165	M 86 expressway, GyMS County border – Csorna bypass section	building licensing	NKH Road, Railroad and Shipping Office	UVH/UH/6/43/2011. (2011.09.27.)
			building licensing (national roads)	Vas County Government Office, Transport Chief Inspectorate, Roads Department	GY/UO/NS/B/24/29/2011. (2011.10.28.)
			building licensing (other roads)	Vas County Government Office, Transport Chief Inspectorate, Roads Department	GY/UO/NS/B/24/28/2011. (2011.10.28.)
			building licensing (modernisation of road 8611)	Vas County Government Office, Transport Chief Inspectorate, Roads Department	GY/UO/NS/B/126/19/2011. (2011.09.07.)
139+250	149+600	M 85-M 86 expressways, Csorna bypass section, Phase I (M 86 139+250-149+600)	building licensing	NKH Directorate of High-priority Issues	KU/KF/28/59/2010. (2010.03.02.)
			building licensing (associated roads)	NKH West-Transdanubian Regional Directorate	KA/48-35/2010. (2010.03.16.)

Abbreviations: - NKH= National Transport Authority

- GyMS County border = Győr-Moson-Sopron County border

4.3. Natura 2000 areas

Main road 86, construction of Vát - Szeleste bypass (90+000 – 98+550 km s.)

2 x 2 lanes: between 90+000 and 93+120 km s. (up to the junction with main road 88)

2 x 1 lanes: between 93+120 and 98+550 km s.

Employer: Vas County National Public-road Management KHT.

Author: UNITEF ’83 Engineering Designer and Developer Zrt. - October 2004

Procedure, in which the following was submitted: Preliminary assessment procedure, an independent Natura 2000 Impact assessment documentation in compliance with Annex 8 of the Government Regulation 275/2004. (X.8) on areas of nature-conservation purpose of European community significance has not been made, the area has been investigated only as part of the wildlife-survey; at the time of the survey in 2002, the area was not yet a Natura 2000 area, as the designation of the Natura 2000 areas took place in 2004 only, roughly at the same time when the EVD was submitted).

Authority: West-Transdanubian Environmental, Nature-conservation and Water Inspectorate

Permit number, release date: 517/8/2005. - 4 March 2005

On the section before road 88, the original route was corrected towards south a little bit (towards the edge of the grassland area) in accordance with an agreement with the Őrségi National Park, for the protection of the area. Through this solution, a significant part of the former military territory (which became later a Natura 2000 area) could remain in one piece north from the planned road.

The acting authority established on the basis of the environmental impact assessment submitted that the planned activity will not harm the environment if the stipulations and environmental provisions laid down by the resolution released are met.

Main road 86, construction of the Vát – Szeleste bypass section in 2 x 2 lanes (92+900 – 98+300 km s.)

Employer: National Infrastructure Developer Zrt.

Author: Dr. GYURÁCZ József PhD - West-Hungary University, Department of Natural Sciences and Engineering, Biology Institute (the complete EVD was made by UVATERV Zrt.) - February 2008

Procedure, in which the following was submitted: Preliminary assessment procedure, an independent Natura 2000 Impact assessment documentation in compliance with Annex 8 of the Government Regulation 275/2004. (X.8) on areas of nature-conservation purpose of European community significance has not been made, the concerned Natura 2000 area has been investigated only as part of the wildlife-survey;

Authority: West-Transdanubian Environmental, Nature-conservation and Water Inspectorate

Permit number, release date: 153-10/22/2008. - 29 May 2008

Natura 2000 affectedness:

- Váti gyakorlótér (HUON 20005) special nature conservation area of high importance
- from 92+900 km s. – to the crossing of road 88, to ~93+320 km s. (both the right and the left side) (The complete Natura 2000 affectedness starts already at 92+200 km s., but this section has already been completed after all, so it was not possible to conduct an environmental procedure for that section.)
- there is a Natura 2000 area within 300 meters at the left side of the section between 93+320 and 94+100 km s.

In January 2008, the road construction was already at an advanced stage, and the original vegetation between 92+900 km s. and 94+600 km s. was already missing. Until 13 February 2008, no landscape transformation of any kind took place between 94+600 km s. and 98+200 km s.

The expert conducting the wildlife survey and the acting authority has established by taking into consideration Article 10 (1) and (2) of the Government Regulation 275/2004. (X.8) on areas of nature-conservation purpose of European community significance, that the 2 x 2 lanes construction of the main road does not endanger, does not harm the Natura 2000 area.

M 86 expressway, construction of the Szeleste – Győr-Moson-Sopron County border section (98+300-119+235 km s.)

Employer: National Infrastructure Developer Zrt.

Author: UNITEF ’83 Engineering Designer and Developer Zrt. (the EIA was made by UVATERV Zrt.) - February 2009

Procedure, in which the following was submitted Environmental impact assessment procedure

Authority: National Environmental, Nature-conservation and Water Chief Inspectorate

Permit number, release date: 14/1480-28/2009. - 30 June 2009

Natura 2000 affectedness:

Rábaköz (HUFH 20001) approved nature conservation area of high importance

During the surveys it has been verified that the indicator habitats and indicator species of the nature conservation area of international importance do not occur in the crossing section of the Natura 2000 area. Based on the impact assessment documentation, the construction and the operation of the planned M 86 expressway will not have observable harmful or destructive impact on the Natura 2000 area if the nature-protection provisions will be complied with.

5. Results of the Environmental Performance Assessment

5.1. Soils, sub-surface waters

Soils

The design area affects four small-landscapes: Gyöngyös-sík (flatland), Rábai teraszos sík (large landscape of the West-Hungary borderline area), Kapuvári-sík and Csornai-sík (Kisalföld large landscape).

The lowland’s character of the Gyöngyösi-sík small landscape is monotonous, and very poor even in micro-forms. Its low surface that has a slight slope towards SE is covered by glacial adobe, by loessy sediments with adobe and clay, and by loess. The surface of the Rábai teraszos sík (terraced flatland) is covered by brown glacial adobe and by loessy sediments; it is today characterized by flat parts getting filled up, by slowly trickling streamlets and withered backwaters. The larger (southern) part of Rábaköz is by 115-140 m above sea level, it is almost a plain basin area which was filled up by rough alluvial deposits by the rivers Rába, Répce, Ikva, Gyöngyös, Marcal. In developing the present character of the surface, the main role was played by the riverine activities of the Holocene, with their think waters and smoothing down impacts; still the very flat, hardly observable ribs of the gravel surfaces from the end of the Pleistocene are visible on a large part of the area.

The dominant soil-formations in the design area are the flood-soils (meadow-types and young, raw types), but the first half of the road section touches brown forest soils too (Rammann-type and with clay wash-in) in a high proportion. The soil-value number is never higher than 60%,

so we can establish that the soils affected by the route show a fertility level not better than medium.

The planned route touches a currently suspended gravel pit: Magyarkeresztúr II., and is adjacent to the Beled III. gravel pit which is also suspended at the moment. The planned route touches the Ölbő I. (B 11) carbon-dioxide and natural-gas storage mining plots. The natural-gas field does not influence the construction of the planned road, and the same way, the implementation of the road does not affect the operations of the mining plot either.

The route approaches land-improved areas between 98+300 and 100+100, 104+820 and 105+949, and 107+100 and 107+660 km segments. The route touches a watered land in the territory of Pósfa. The planned road cuts through this privately owned land.

The soil-protection plans have been completed for the entire section and, on this basis, also the humus-management plans, according to which the quantities of humus to be removed and the planned use of humus have been determined for each section.

As for the Vát-Szeleste section already completed (between 89+980 and 93+800 km s.), the removed humus was used for recultivation, and for humus-covers for embankments.

Sub-surface waters

The groundwater flow direction is SE generally, but in the valleys of streams it turns to the valley's direction. In the neighbourhood of stream-valleys, in the time of high water levels, groundwater levels near the groundlevel may occur. Along the entire length of the road section, near-the-surface groundwaters must be counted on, with 1-3 m depths. In extreme cases the maximum water levels may reach even the surface, while in the watercourse-areas even inland-water covers are probable.

Several water-producing wells are situated in the design area, but the route does not touch them. The route touches the hydrogeological protection zone belonging to the 50-year reaching time of the Vát waterbase only from among the three waterbases of the neighbourhood (Vát, Beled, Pál) which are marked also by a hydrogeological protective zone.

According to Government Regulation 219/2004. (VII.22.), the route belongs to the following sensitive areas: „2 a" areas with replenishment of higher than 20 mm (80+775 - 130+915 km s.) and „2 c" Main water provider within 100 m depth (130+915 km s. - end of the design section); further, between 89+500 and 94+000 km s. (Vát water base), it also affects a „1 a" Waterbase - protection zone.

In an area which is highly sensitive in terms of subsurface waters (Nick, Uraiújfalu), water-tight ditches have been designed for the sections between:

– 108+580 and 110+190 km s.

– 112+890 and 115+175 km s.

At several points in the vicinity of the county border, desiccating-evaporating ditches have been designed. The preliminary assessment documentation for these works are being prepared in connection with the currently ongoing water construction licensing process, in compliance with Government Regulation 219/2004.

If the technical discipline is ensured and the mandatory emergency-preparedness provisions are met, exposures to the soil and the sub-surface waters, and the occurrence of pollution are excludable during the construction works. Damage to the soil structure developing during the implementation can be remedied by agrotechnical methods, therefore these cannot be considered as actual impacts.

In the operation phase of the expressway, the exposures to the subsurface waters are limited to contaminants washed down by rainwaters, however, in the meaning of relevant research- and test-results, the contaminants get decomposed within a short way (under proper soil conditions and ditch design) and they do not reach the sub-surface waters.

So it can be stated for both the construction and the operation phase that the contamination of the environmental component can be excluded or minimized with proper process discipline.

With view to the fact that the planned works is not expected to have negative impacts on the environmental component, therefore the implementation of a monitoring system and the scheduling of regular tests are not justified. One exception is: the soil investigation prescribed for the crossing of M 86-main road 84 and M 86 - road 8447 in the Szeleste-GyMS County border section.

The results of the performance assessment do not differ from the results of the examinations included in the preliminary plans. Protective works, additional measures, further monitoring tests are not necessary.

5.2. Surface waters

The design area falls onto the water catchment area of river Rába. The water courses affected by the section under examination are the following (in the segmentation's numbering order): Bogáca – ér, Kozár – Borzó – patak, Perec – patak, Surányi –patak, Cséri – patak, Sormás – patak, Rátka – patak, Répce-árapasztó, Keszeg-ér.

In addition to the aforesaid watercourses, the route crosses a number of canals and ditches. Natural lakes or reservoirs do not occur in the environment of the planned route, only a few gravel-pit lakes (Beledi gravel-pit lake: near the 127+770 km s.; a part of the Magyarkeresztúr gravel pit is also a lake of small surface near 130 km s.).

According to the data originating from the sampling points of the National Master Network for the Quality of Surface Waters (Rába-Ostffyasszonyfa, and Győr - the bridge of road E 5, and Rábca-Lébénymiklós, watermeter), and from the year 2007 examinations of the longitudinal section of river Rába conducted by the North-Transdanubian KTVF, the water bodies of the bigger watercourses (Rába, Répce, Rábca) located in the larger environment of the design area and falling onto the concerned area *are not hazardous in the meaning of the Water Framework Directive (VKI)*. At the same time, the small watercourses and the inland-water canals of the design area are rich in plant food and organic materials due to the contaminations washed into these waters from the non-canalized settlements and from the high number of animal breeding farms, conveyed by stormwaters and inland waters; and also due to the improper treatment efficiencies of wastewater treatment plants, etc.

Structures under construction and already implemented, necessary at watercourse-crossings:

Section of planned expressway	**Crossing of watercourses at the time of implementation**	**Planned measures**	**Technical design of the crossing**
M 86 80+906	Main road 86 80+906.08 Bogáca - ér crossing	under construction extension of existing corrugated steel plate	corrugated steel plate
M 86 83+74	Main road 86 83+074,60 Kozár-Borzó-patak	under construction widening of an existing structure	overpass over a watercourse, widening of an existing structure
M 86 84+064	84+064,18 above Perec-patak	under construction demolition of an	corrugated steel plate

		existing bridge, construction of a new culvert	
M 86 85+339	85+339,14 km Surányi - patak	under construction	corrugated steel plate tunnel
M 86 86+689	86+689 Cséri-patak crossing	under construction	corrugated steel pipe
M 86 87+290	87+290 Sormás –patak crossing	under construction	corrugated steel pipe
M 86 87+923	87+923 Sormás –patak side-branch crossing	under construction	corrugated steel pipe
M 86 89+225	89+225 Rátka-patak crossing	under construction	corrugated steel pipe
M 86 90+920	90+920 Hosszú-víz crossing	completed	corrugated steel pipe
M 86 93+810	93+810 Kőris-patak crossing	completed	Tubosider 9,784 m free openings
M 86 97+975	97+975 Szelestei-patak crossing	completed	corrugated steel pipe

The crossings of the watercourses located in the design area are realized with the following engineering solutions:

Crossing segment	**Watercourse**	**Engineering design of crossing**
99+045	Béresdombi – árok (ditch)	Overpass over a watercourse
100+295	Kőris –patak (stream)	Overpass over a watercourse
101+350	Inland water canal	Culvert with a 2,0 m opening
101+990	Kőris - patak	Overpass over a watercourse
102+275	Inland water canal	Culvert with a 3,0 m opening
103+615	Inland water canal	Culvert with a 3,0 m opening
106+750	Inland water canal	Culvert with a 3,0 m opening
108+900	Biogödöri-csatorna (canal)	Culvert with a 1,20 m opening
115+020.8	Csörgető-csatorna correction	Culvert with a 1,20 m opening
116+568.5	Öv-csatorna crossing	Culvert with a 1,20 m opening
117+041	Kőris-patak (stream)	Overpass over Kőris-patak
119+112,59	Kis-Rába (river)	Overpass over Kis-Rába
119+670	Répce-árapasztó (watercourse)	Bridge
120+430	Keszeg ér (small watercourse)	culvert
124+428,29	Keszeg-ér	Bridge
127+189,25	Keszeg-ér	Bridge with a wildlife crossing
131+938,18	Keszeg-ér	Bridge
132+340	02/2 hrsz. Irrigation-water feeder pipeline	ϕ1,60 m ny. pipe culvert
133+252,89	Zsebeházi csatorna	ϕ1,20 m ny. pipe culvert
137+018	Keszeg-ér	Bridge
138+730	Szilsárkány-felső csatorna	Bridge with a wildlife crossing
138+739,49	Keszeg-ér	
M 85 21+910	Prépostsági I. csatorna	ϕ2,00 m ny. pipe culvert
M 85 24+786	Pápa vasútmenti csatorna	ϕ1,20 m ny. pipe culvert
M 85 26+172	Keszeg-ér	Bridge
M 85 27+267	Hőgyészi csatorna	ϕ1,20 m ny. pipe culvert
139+894	Keszeg-ér	MB 15
142+286	0103/10 ditch	ϕ1,20 m ny. pipe culvert
147+677	Keszeg-ér	Bridge

In the Szombathely-Vát section under construction, bed correction is needed at 1 place; in the Vát-Szeleste bypass already completed: at 3 places; and in the planned Szeleste-Csorna section: at 27 places.

Desiccating ditches are built at 14 places, in about a 14 km long section.

Pursuant to *Annex 2* to Regulation 28/2004 (XII.25.) KvVM, the surface water courses of the examined area which can be considered as receiving water bodies belong to the following categories applied in the Regulation: 3. temporary watercourse receivers, and 4. (general) category.

According to the calculations performed on the basis of traffic figures, the oil contamination getting into the receiver water bodies is under the limit value, therefore it is not necessary to include separate treatment structures in the designs.

The implementation of a monitoring system, and the scheduling of regular tests are not justified.

So it can be stated for both the construction and the operation phase that the contamination of the environmental component can be excluded or minimized with proper process discipline.

The results of the performance assessment do not differ from the results of the examinations included in the preliminary plans. Protective works, additional measures, further monitoring tests are not necessary.

5.3. Air-cleanliness protection

We investigated the air exposures of the area for the following time periods:

- year 2013 current situation,
- year 2028 „with" situation (design +15 years)

The current (2013.) and the prospective (2028) air quality conditions were taken into consideration under critical meteorological circumstances and with view to the benchmark hourly traffic (MOF).

- We performed air emission calculations for the currently already built sections of the M 86 expressway and for the associated road-network components – regarding the CO, NO_2, NO_x and PM_{10} components.
- The air-immission calculations were performed by the SoundPlan 7.2 software. We evaluated the NO_2 exposures on the basis of air-pollution maps.

In year 2013, the highest concentration values in the already completed section of M 86 expressway are found in the outer administrative zones of settlements Vát and Szeleste, where the NO_2 concentration is higher than the limit value primarily above the motorway's territory. At the residential buildings situated the nearest to the road, the exposures fall much below the limit value.

In year 2028, the highest concentration value occurs at Csorna settlement on the common section of M 86-M 85, where the NO_2 concentration reaches values higher than 55 $\mu g/m^3$ primarily above the motorway's territory, but even this exposure level is lower than the health limit value.

As in the air exposure calculations, exposures originating from the traffic on M 86 are assessed in a condition under critical meteorological circumstances, therefore it can be stated by high certainty that under normal (average) meteorological circumstances, the NO_2 concentrations at the residential buildings situated the nearest to the road M 86 remain much below the limit values.

After having studied the preliminary plans, it can be established on the basis of the calculations performed with estimated traffic data (averagely, for years 2025-2028), that, under the most unfavourable atmospheric conditions, the concentrations of the assessed

pollutants do not cause over-the-limit air pollutions at any section of the design area, therefore there is no need to take a specific measure for the protection of air cleanliness.

So, in the event that this project gets implemented, neither the former preliminary plans, nor the currently performed calculations and modellings do not predict an exceeding of the limit values.

Pursuant to Article 29 (1) of Government Regulation 306/2010. (XII.23.), in the event of a construction of motorway or motor-road line sources (with the exception of built structures associated with the operation of such motorways or motor-roads), residential buildings, holiday buildings training-, education-, health-, social- and administrational buildings must not exist in and must not be placed to a zone within 50 meters from the axis of the transport works. This 50-m wide protective zone provides sufficient protection for the environment.

In the assessed section, we proposed to designate two (2) monitoring points:

- L 1. Nick, Mező Imre - in the vicinity of the last residential building
- L 2. Vát, Fő út 81. - in the vicinity of this residential property

5.4. Wildlife

In terms of wildlife protection, in the course of the performance assessment, we have surveyed the natural and near natural habitats and habitat-complexes affected by the already operational, under construction, and planned sections of M 86 expressway, as well as the sensitive plant and animal species affected by the vicinity of the road. The survey of the valuable components of wildlife is based fundamentally on the results of the in-site examinations performed in the course of the designing of the road, except the two Natura 2000 areas crossed by the road and considered to be the most sensitive ones, for which we have performed additional examinations.

In general it can be stated, that in the preparatory and design phase of the road, efforts were taken to take into consideration the natural values situated along the route. This is confirmed by the repeated surveys of the starting sections between 2002 and 2008, however, the output was realized at different levels in accordance with the improvement of the environment-protection practices in the past ten years.

In the starting section stretching from Szombathely up to the Vát bypass road (which is currently under construction) habitat complexes of significant nature-conservation value, or protected species have not been found. The route runs on agricultural lands. With view to first of all the sensitivity of the receiving watercourses, biofiltrating ditches were allocated for this area in connection with the conducting of stormwaters flowing off from the motorway surface.

A significant insufficiency of the implementation of the road is that there was no specific assessment conducted as regards the affectedness of the Natura 2000 area in the course of the designing of the Vát bypass road and junction. It can be explained by the fact that the designation of the Natura 2000 area and the licensing of the given road section took place roughly at the same time, and also that, at that time, the proper practices required by the EU as regards the administration of the Natura 2000 areas have not been developed yet. The adjustments done at the time when the section was brought into operation allowed only the fixing of the existing situation. In spite of all these, ecological crossings were still implemented during the construction of the road section, as it proved to be necessary on the basis of the early wildlife examinations, and the coordination with the competent nature-protection bodies. As no monitoring tests were carried out in the concerned area, therefore

there are no data available for the given period on the effectiveness of these measures and on the changes occurring in the area.

In the course of the Natura 2000 impact assessment performed as part of this performance assessment, it has been established that in the case of the *Váti gyakorlótér Natura 2000 area*, the junction of roads M 86-88 used up further areas compared to the Natura 2000 area's boundaries corrected in 2010, whose total size is about 4.540 m ^{2}. The owner of the area has not changed, as the military drilling ground had been the property of the Hungarian State in the past too. The transfer of the asset-management rights from the Hungarian Army to NIF is under way, however, in the additionally used parts of the property the Natura 2000 mark still exists. As for the results of the impact assessment, the investment project does not have demonstrable negative impacts on the indicator habitats and indicator species of the Natura 2000 area.

The nature-conservation value of planted forests along the rest of the route can be interpreted in terms of their fauna in the first place, as (with the exception of the alder grove of waterstream Kőris-patak) they do not exhibit a natural view, and are under regular cultivation. Protected plant species are not found in these areas, the implementation of the road did not take away valuable croplands, but it cut the area used by the game stock into two pieces. A wildlife crossing constructed at the crossing with watercourse Kőris-patak not far from the Vát junction is intended to correct this situation, but the effectiveness of this solution is not known from monitoring data. The in-site survey performed in 2013, however, has shown that the wildlife crossing is being used by large game as well as by otters. A big-game overpass has been also included in the designs to facilitate the movement of game in segment 101+500 km s. situated between Pósfa and Hegyfalu, and in 108+830 km s. between Vámoscsalád and Vasegerszeg, but these wildlife crossings have been expressly prescribed by the environmental resolution (in contrary with the aforementioned one). In the case of the wildlife crossings and ecological crossings belonging to the currently planned condition, the nature-protection monitoring activities must also be performed in compliance with the prescriptions.

The larger, crossed watercourses, such as Kőris-patak, Répce-árapasztó, Keszeg-ér, and certain smaller watercourses, such as Béresdombi-patak and Csörgető-patak function also as ecological corridors, therefore the high-water beds of these watercourses must not be narrowed down by the crossing bridge structures; in the case of Csörgető-patak, the bed-correction must be performed out of the vegetational period. In the case of these watercourses, the bridge structures function also as ecological crossings. The applicable provisions of the environmental resolution have been taken into consideration in the design process. At 26+171 km s., at the structure that crosses Keszeg-ér, it is possible to position the pillars within the embankment according to the coordination held with OKTVF, as there is nothing in terms of nature-protection to prevent it.

A highlighted area is the crossing of river Kis-Rába between 119+078,25 and 119+596 km s., where, in 40-meter width, the route crosses the „Rábaköz" special nature conservation area of high importance, code: HUFH 20001. In accordance with the environmental provisions, the parts within the embankments considered as wildlife crossings must not be narrowed down here either. This provision has been taken into consideration as far as possible: as the works drawings show, 4 bridge-pillars are located on the Natura 2000 area, but affect the embankment slope to a small extent only. The abutments of the bridge are located outside of the Natura 2000 area. The size of the entire projected area of the road over the Natura 2000 area is about 2000 m ^{2}. In the licensing phase, an impact assessment was performed for the crossing of the Natura 2000 area, which has been revised in this present performance assessment process, and it has been submitted in the form of a uniform impact assessment

documentation (*no.E.01.02.*) that contains the study for the Váti gyakorlótér too. The revision of the impact assessment pertaining to the crossing of the *Rábaköz Natura 2000 area* has established that the investment and the works associated with the investment do not have significant negative impacts on the indicator habitats and species, and do not endanger the integrity of the area. This confirms the finding based on the outcome of the former impact assessment, according to which the investment will not have an impact as regards the species and habitats serving as the basis of the designation, as only a few of them occurs in this place, which is not a typical breeding place thereof either.

In the section after the county border, the environmental permits contain more detailed wildlife-protection provisions, which are taken into consideration by both the works plans and the tender plans. As the provisions of the work plans and tender plans say, the use of/exposures to areas holding natural values must be restricted to the minimum during the construction. As the larger watercourses function as ecological corridors in this area too, the territory-parts within the embankments must not be narrowed down by structures, and must not be used in the course of the construction either. These provisions are taken into consideration in the designs for bridge structures. Attention must be paid to the former mining pits which has become into near-natural condition. Their territory must not be used for the storage of materials, and their use for material extraction is also restricted. In the Szilsárkányi gyepek natural area, a temporary fence must be built during the construction works, and the forest Prépostszeri-erdő and the grasses around it must not be designated for the purpose of transportation routes and storage areas.

As for the operation of the road, the works plans of the lately designed sections comply with the provisions when they take into consideration that, in the grasses affected by the construction, grazing and cutting of the grass must be ensured for 3 years in order to prevent the unwanted overgrowing of the area with weeds and the spread of invasive species. The monitoring of wildlife must be performed in the operation phase too.

The total number of crossings to be built in the assessed route:

- 3 independent wildlife-overpasses,
- 4 combined wildlife crossings for big game (1 of them has already been completed),
- 3 structures allowing specifically the crossing of amphibia and reptiles have already been completed in the operational road section, and
- 10 ecological crossings combined with watercourses are planned along watercourses considered as ecological corridors.

In the case of the planned ecological crossings, monitoring is also planned for the passage of red deer, roedeer and wild-boar primarily, in the case of big-game crossings, and for the monitoring of small mammals, otters and amphibia in the case of ecologic crossings combined with watercourses. As for the already implemented ecological crossings, no monitoring has been prescribed for wildlife protection.

Further works for animal protection along the completed and the planned routes are: game-protection fences, and a net fixed onto the game-protection fence, for the protection of butterflies along Szilsárkányi gyepek.

From botanical points of view, the presence of stocks of certain protected plant species must be highlighted, which have been surveyed meticulously in the design process. In the case of habitats containing protected plant species, a repeated botanical survey must be carried out prior to the construction works, and the salvation (transplantation) of protected plant individuals from areas to be expropriated (if such occur there) must be ensured. An area concerned is 100+390 km s., where *Succiella inflexa* appears, and 101+000 km s., where

Melilotus altissimus occurs. Prior to the construction works, the protected plant populations not directly affected by the route (*Gentiana pneumonanthe, Viola uliginosa, Cnidium dubium* populations) will be fenced down in Szilsárkányi gyepek between 138+600 and 138+945 km s. The provisions of the works plans for Szilsárkányi gyepek include also the subsequent examinations for the plant protection measures.

5.5. Landscape Protection

In respect of the landscape protection aspects of the expressway construction, the expectable changes or the changes caused by the road, have been reviewed.

Considering the present condition of the landscape, the design area from Szombathely to Csorna can practically be regarded as a plain, level country, where the geomorphological characteristics of the almost perfectly flat country are a bit varied by an intricate network of flat recesses with bad drainage or no drainage at all, dead beds of bigger water courses located on the design area, and shallow valleys of rivers and brooks.

Regarding the vegetation of the smaller regions crossed by the design route, the Gyöngyös Plain region, which is the most southern, has a vegetation that is a transition between the vegetation of mountains or hills and the vegetation of Little Alföld (Kisalföld). In the wooded areas the presence of oak species is dominant, while in planted forests the pine can be found in great number. The alluvial forests bordering the smaller rivers and brooks have thinned, and the appearance of invasive plants are dominant near water courses. The proportion of agricultural land is significant in the Szombathely area. Most of the natural forests were deforested in the small region of the terraced plain of the Rába river several hundred years ago. The arable lands which had bad soil were afforested with acacia. The former water related vegetation of the area of the Kapuvár Plain defined by the regions of Répceköz and Rábaköz are mostly arable lands today, varied with large forests. Pioneer habitats appeared in the abandoned gravel pit ponds which are so characteristic of the region. The river plain of the Rába river has already dried up practically, and its natural values got destroyed, but the few remaining stock represents a great value. The invasive load is moderate. The dominant morphological elements of the Csorna Plain which are affected by the construction of the end section are three rivers, the Rábca, the Rába and the Marcal, which have their confluence at Győr. The vegetation of this small region is similar to that of the Kapuvár Plain; the breaking and afforesting of grasslands characteristic of both small regions takes place nowadays.

The land use of the region is characterized by the dominance of lands occupied by agriculture, while the amount of area used for industrial purposes is not significant. Greater forest areas can be found between Vát, Vasegerszeg, Vámoscsalád, Kapuvár and Kisfalud, but it is a general characteristic of the settlements that there are no sheter belt forests, tree- and hedgerows.

The expressway does not affect neither directly nor indirectly areas under national protection, but it uses two Natura 2000 areas in a small extent. The route also affects elements of the National Ecological Network, which are as follows: Vát shooting ground (core area and ecological corridor on the constructed section); core area at the settlement of Pósfa; multiple crossings of the brook Kőris, ecological corridor; the crossing of Kis-Rába at Répcelak, ecological corridor; the crossings of the brooklet Keszeg between Sopronnémeti and Csorna, ecological corridor and buffer zones. The design area does not affect landscape protection areas, but it affects the HNVA (High Nature Vaue Area) of Hanság in the administrative area of Csorna. The expressway approaches unique landscape values at seven places, four of which can be found near the road section that has already been built, but there is no direct contatct

between them. The translocation of a stone cross has to be taken into count and an old oak tree regarded as a unique landscape value has to be cut down along the designed section.

In the course of the landscape protection review of the road construction, it was established that the road which has been built or is under construction between Szombathely and Szeleste is a considerable change from the point of view of landscape protection, as compared to earlier conditions, on the section of the reviewed M 86 expressway between Szombathely and Csorna. In accordance with this, the area changes anticipated in former documents have already happened, and therefore adverse changes are not to be expected in land use on this section. Similarly, on the sections which have already been built or are under construction, measures have been taken or will be taken in the near futere (planting of plants) to blend the road into the landscape in order to mitigate the negative landscape effects of the line structure. The negative effects of the construction don't have to be taken into count on the sections which have already been built, because these sections are already in operation.

This study has not found significant deviations from the earlier findings on the design section from Szeleste to Csorna which can yet be evaluated in respect of the review of changes:

1. there haven't been marked changes in the landscape within this period of time, new landscape elements haven't appeared in the environment of the reviewed section;
2. the study has not found any significant new landscape protection data or circumstance (e. g.: unique landscape value) as compared to former data;
3. there haven't been any changes which involved significant change in the landscape (neither in the vertical nor in the horizontal alignment) along the desingn route.

The land use of the total designed expressway (that hasn't yet been built) is 309.4 ha, 95.3% of which affects arable land.

The effect of the design route on the landscape can be evaluated by the number of the junctions and grade separated junctions designed on the section, because these appear as new visual elements in the landscape. Six structures have already been constructed, which are directly related to the road development and there will be built 81 more in total. Considering all of the structures, 35 junctions have been/will be constructed of the underpass type. The greatest changes in the landscape will be caused by the 5-10 m high embankments which are to be built at the crossings of bigger water courses, railway lines and main roads, and the grade separated junctions designed. Due to the nature of the flat country, these can bee seen from a great distance, therefore it is very important that they should be blended into the landscape properly.

The reviewed section of the road runs always on an embenkment, so it is a new and sometimes disturbing element from the point of view of the landscape at the beginning. Those, however, who are travelling on the road will have a nice view.

In the course of the design phase (licensing, tender and works drawings) special plans of plant planting were made, which take into consideration the redressing of disturbed ecological conditions, the protection of the original natural or near-natural ecosystem, the improvement of local climate conditions, the recultivation of damaged surfaces alongside the road, as well as the reducing of other environmental harm arising from the traffic. The planned shelter belts of forests enrich the one-time wooded land which has become a treeless plain by now. The design of the environment of wildlife crossings is important, as well as the creation of isolating shelter belts of forests. It is also an important point of landscape protection that the (2.4 meter high) protective fence to be built should fit into the landscape, and for the travellers and local residents it should almost invisibly blend in with the landscape (e.g. steel fence posts).

A monitoring study is not necessary from the point of view of landscape protection.

5.6. Built Environment

By following the numbering of segments, the affected settlements are as follows:

Szombathely, Vép, Nemesbőd, Vát, Szeleste, Ölbő, Hegyfalu, Pósfa, Vasegerszeg, Uraiújfalu, Vámoscsalád, Nick, Répcelak (Vas County section), Rábakecöl, Vásárosfalu, Beled, Magyarkeresztúr, Zsebeháza, Szil, Sopronnémeti, Szilsárkány, Csorna (Győr-Moson-Sopron County section).

The development plans of the affected settlements are in accordance with the design route; the modification of the development plans were made on the basis of the existing drawings. The structural drawings of Vép include the design route of M 86, but on the regulatory plan there is no regulated zone for the route. The structural drawings of Vát include the the theoretical route; the settlement does not have a regulatory plan according to the information given by the notary lady. Considering the county development plans, there is a dicrepancy between the route regulated by the development plan of Vas County and the present route between Szombathely and Nemesbőd.

According to the development plans, the route runs mainly among agricultural lands, it is adjacent to forests of a sheltering purpuse at some places, it is along rural habitations between Szombathely and Zanat, runs by a gravel pit at Beled and Murakeresztúr, and by industrial business, commercial service, and waste management areas at Ölbő, Répcelak and Csorna.

According to heritage protection studies accompanied with site tours, the route affects archeological sites at several places. The archaelogical excavations have already been concluded on the sections which have already been constructed or are under construction, while the archaelogical excavations on the designed sections are presently in progress. The works are expected to be finished on the Csorna bypass in the summer 2013, and on the Szelest-Csorna bypass in the summer of 2014.

With the exception of Répcelak, the route does not endanger any valuable objects which are protected or are to be protected. A stone cross, which represents a unique landscape value and can be found in the territory of Répcelak, will be relocated before the construction, and there is an oak tree (Quercus robur), registered as a unique landscape value, near 99+323 km s., which will be cut down due to the construction of an overpass.

Depending on the decision of the Inspectorate, the relocation of the public utilities crossed by the route is considered in some cases as an activity subject to impact assessment. None of the relocations affects Natura 2000 areas or areas under national protection. Considering the Szombathely-Szeleste section, the Inspectorate did not prescribe EVD requirement in relation to these public utilities in the course of the design and construction phase; the relocations have been carried out.

The findings of the performance assessment do not deviate from the findings of the assessments included in the preliminary plans. Protective structures and additional measures are not necessary.

5.7. Noise- and vibration control

We have determined the existing and the prospective noise exposures for the direct impact area by calculations. We prepared the propagation calculations by using the Sound_Plan 7.2

software. In addition, we have presented the prospective changes of noise loads in the associated road network too.

We have assessed the noise loads:

- in the current, year 2013 situation,
- in the „with" situation in year 2028 (design+15 years).

In presenting the current condition of the impact area, we presented in detail the already completed Vát-Szeleste section. On the basis of the calculations, it can be established here, that the current noise exposition at the facility or area to be protected, which lies the nearest to the assessed road, does not exceed the appliable limit values.

In the direct vicinity of the further route sections to be still implemented (as currently these are traffic-free areas) the traffic noise exposure originates from roads in larger distances.

The estimations for the construction works are the following, taking into consideration the distances: at areas to be protected, it does not cause noise exposures above the limit values, while for the nearest buildings to be protected, their impacts are tolerable.

Depending on the order of magnitude of the existing traffic of the roads used, highly different changes in noise exposure are expected along the construction/transport routes. The changes in noise exposures, however, do not give rise to an exceeding of the limit values typically, or to a negligible extent only. In accordance with the measure of the noise exposure changes, we have presented proposals to avoid certain road sections.

In terms of vibration control, the construction works are not expected to present risks.

Perspectively, along the M 86 expressway, in the inner areas of settlements, it can be established on the basis of the calculations, that the perspective noise exposures of facilities or areas to be protected and lying the nearest to the examined road do not exceed the applicable required values.

The planned project does not justify the taking of noise control measures. The project is in compliance with the provisions set out by the applicable legislation.

In the assessed area, on the basis of the distances between the planned road and the buildings, it can be established that the construction of the planned road does not represent a significant change from the aspect of the vibration exposure of the existing buildings.

In the case of the associated road network, the perspective results of the traffic assessment should be considered as an estimation. For this reason, the conclusions allow to deduce the trends of changes, but the concrete quantity thereof is assessed only to provide information.

The majority of noise-exposure changes of the associated road network point to the reduction direction; where increase is expected, we have proposed monitoring measures.

In the event of the associated road network assessed, it can be established on the basis of the distances between the existing roads and the buildings, and on the basis of the expectable traffic changes, that the expectable changes do not represent significant changes in terms of the noise exposures of the existing buildings.

Deviations from the preliminary plans:

After having studied the preliminary plans, it has been established that:

- in the preliminary plans, graveyards, as facilities to be protected from noise have not been investigated; this issue is presented by this present performance assessment,

- in the preliminary plans, certain planned residential and holiday areas, as facilities to be protected from noise have not been investigated; this issue is presented by this present performance assessment,
- in the preliminary plans, the noise exposure changes of the associated road network have not been assessed in proper details; this issue is presented by this present performance assessment.
- a more exact estimation was used to determine the noise exposure levels during the construction process,
- we have made the earlier planned monitoring network more exact depending on the expectable noise exposure levels; we have proposed noise assessment for the justified places;
    - monitoring points necessary under the preliminary plan:
        - Vát
        - Szeleste, and Szeleste graveyard
        - Csorna, Virág utca 7. sz. residential building
        - Sopronnémeti, Rákóczi Ferenc u. 9. sz., residential building
        - Zsebeháza, Kossuth Lajos u., sports grounds
        - Vásárosfalu, Fő u., graveyard
    - noise monitoring points necessary according to this present performance assessment plan:
        - Z 1: Nick settlement, at the building to be protected, being the nearest to the expressway,
        - Z 2: Rábakecöl (along the associated road network) for the monitoring of the changes of noise exposure originating from the traffic in road 8611,
        - Z 3: Zsédeny (along the associated road network) for the monitoring of the changes of noise exposure originating from the traffic in main road 84
        - Z 4. measuring point
          Vásárosfalu, Fő utca, graveyard
        - Z 5. measuring point
          Zsebeháza, Kossuth Lajos u., sports grounds
        - Z 6. measuring point
          Sopronnémeti, Rákóczi Ferenc u. 9.
- according to the preliminary plan, a noise-control forest belt is needed to protect the Vásárosfalu graveyard from noise at the following place:
    - 150 m long (between 125+000 and 125+150 km s.), 30 m wide. For landscape-aesthetical reasons, the protective forest (belt) is planned to near the graveyard.
    - according to the current performance assessment, the creation of the protective forest belt in question is not justified on the basis of the prospective noise exposures.

Conclusions identical with those of the preliminary plans

After having studied the preliminary plans, it has been established that:

- it is not justified to construct noise-control walls or to take passive noise control measures at any point on the grounds of the implementation of the planned road sections.

The preliminary plans indicated a perspectively increasing noise exposure of Zsédeny settlement in main road 84 in the associated road network, which is confirmed also by this present performance assessment (at this point in our opinion a monitoring examination is necessary after the implementation, similarly to the relevant finding of the preliminary plan).

5.8. Waste management

The assessed section of the planned route does not affect waste disposal sites directly.

In the course of the performance assessment we have demonstrated the types of wastes that may be generated during the construction and the operation of the road, and we have updated the address-list of waste disposal sites and waste management organisations dealing with the wastes generated in the course of the construction and operation, situated in the vicinity of the road.

The impact assessment study made for the Szeleste-county border section indicated that an illegal waste dumping site is affected by the route in Uraiújfalu. This dumping site is situated in the plot under land registry number 0278 (hrsz). In connection with the plot in question, we contacted the competent North-Transdanubian KTV Inspectorate. As a consequence of this the Inspectorate, with the agriculturist of Bábolna Tetra Kft. held an on-site tour to view the site, and they gave the following information as regards the plot in question: in their opinion, the material observed earlier in former on-site tours may have been originated from melting snow.

The manager of the already complete Vát-Szeleste bypass section of main road 86 is Magyar Közút Kht., who is going to be the manager of the currently built Szombathely-Vát section too. But if these sections (together with the planned Szeleste-Csorna section) will function as an expressway, then Állami Autópálya Kezelő Zrt. is going to take over their management.

The operation of the section will be performed by the maintenance centres (Vép, Szilsárkány) being currently designed. The wastes collected along the carriageway will be taken to the collection sites of the maintenance centres. In the rest area sites, waste storage facilities, sunk into the ground, will be constructed for the collection of communal wastes.

The findings of the performance assessment do not deviate from the findings of the assessments included in the preliminary plans. Protective structures and additional measures are not necessary.

6. Summary assessment

In the course of the Environmental Performance Assessment, we investigated the environmental impacts of the construction and operation of the Szombathely-Csorna section of M 86 expressway, in comparison with the results of formerly prepared plans. In the frames of the assessment, we have presented the preparation of the project as well.

We turned a high attention to the Szombathely – Szeleste section, whose documentations submitted in the course of the former environmental and building licensing procedures (referring to a main road) do not meet currently either the Hungarian or the EU legislation (due to the amendments of the legislation in the meantime, and due to the advanced stage of the designing of the associated Szeleste – Csorna (expressway) section. The former procedures have, as a matter of course, met the then effective legal rules, but Government Regulation 314/2005. (XII.25.) on the environmental impact assessments and on the integrated pollution and prevention control licensing procedures, and Government Regulation 275/2004. (X.8.) on areas of nature-conservation purpose of European community importance (both created after Hungary’s accession to the European Union) have been amended several

times since. The amendments of Government Regulation 314/2005. (XII.25.) were composed of the changes of the threshold values, criteria and licensing procedural rules of the activities subject to an environmental impact assessment, while the amendments of Government Regulation 275/2004. (X.8.) were serving the purpose of a better compliance with the applicable directives of the European Union: the habitat-protection directive and the birds' protection directive. The amendments in general were intended to settle the practical problems that occurred in the application of law, and they clearly demonstrate the improvement of the intention of the organisations participating in the licensing procedures for a better compliance with law, and the improvement in the maturity of their environmental preparation, with which they treat the explored faults and deficiencies.

Main deficiencies:

- In the Szombathely – Vát section (as formerly it had been licensed as a secondary main road) the two-tier environmental licensing procedure was not performed.
- The Vát and Szeleste bypass had been licensed also as secondary main roads, but (as it crosses a forest block larger than 50 ha) it was qualified as an activity subject to an environmental impact assessment depending from the Inspectorate's decision, therefore the preliminary assessment procedure was conducted for this section. The Inspectorate's finding was that the implementation of the road does not have significant environmental impacts, therefore a detailed impact assessment was not carried out.
- On the Vát bypass section, in the neighbourhood of the traffic junction of roads M 86-88, the Váti gyakorlótér Natura 2000 area stretches at both sides. Earlier an independent Natura 2000 impact assessment documentation in compliance with Annex 8 of the Government Regulation 275/2004. (X.8) on areas of nature-conservation purpose of European community significance has not been made, the concerned Natura 2000 area has been investigated only as part of the wildlife-survey.

This present Environmental Performance Assessment completed is intended to make up for the aforementioned deficiencies; in the course of the assessment, we investigated the environmental impacts for the entire section, and we have prepared the Natura 2000 Impact Assessment Documentation pertaining also to the entire section.

By comparing the results of the Environmental Performance Assessment with the provisions of the former plans and permits (environmental facilities and measures), it is worth to highlight the following findings:

- in the case of the *Váti gyakorlótér Natura 2000 area,* the junction of roads M 86-88 used up further areas compared to the Natura 2000 area's boundaries corrected in 2010, whose total size is about 4.540 m ^{2}. The owner of the area has not changed, as the military drilling ground had been the property of the Hungarian State in the past too. The transfer of the asset-management rights from the Hungarian Army to NIF is under way, however, in the additionally used parts of the property the Natura 2000 designation still exists. As for the results of the impact assessment, the investment project does not have demonstrable negative impacts on the indicator habitats and indicator species of the Natura 2000 area.
- the formerly planned monitoring network was made more specific on the basis of the prospective noise exposure levels, and 3 monitoring points are proposed instead of the former 10 monitoring points.

- according to the noise exposure calculations performed in the performance assessment, the implementation of the noise-control forest belt planned to protect the Vásárosfalu graveyard (between 125+100 and 125+150 km s., 30 m wide) is not justified on the grounds of the prospective noise exposure levels.

The aforesaid clearly shows too, that the plans/designs and the licences of the Szeleste – Csorna section of the M 86 expressway can be used completely, there is no need for additional measures, therefore they serve the purpose of the commence-ability of the construction as soon as possible. In the Szombathely – Szeleste section the following additional measures are recommended:

- maintenance (repair, replacement) of the guide net connected to the 3 ecologic crossings built in the Vát bypass section (between 93+470 and 93+730 km s.)
- in the environment of the residential building situated at Vát, Fő út 81., air-cleanliness monitoring test is needed.

This Environmental Performance Assessment was made for the purpose of describing the cumulative environmental impacts of the Szombathely – Csorna section of M 86 expressway, by taking into consideration the provisions of the currently effective legislations.

It has been established that there was no specific assessment conducted as regards the affectedness of the Natura 2000 area in the course of the designing of the Vát bypass road and junction. It can be explained by the fact that the designation of the Natura 2000 area and the licensing of the given road section took place roughly at the same time, and also that, the proper practices required by the EU as regards the administration of the Natura 2000 areas have not been developed yet. In spite of this, as the early wildlife-protection examinations and the preliminary co-ordinations with the competent nature-protection bodies have explored certain values of the area (primarily for species bound to aquatic habitats, streams and forests), ecologic crossings have been implemented in the course of the construction of the affected road section. As no monitoring tests had been performed in the area either, therefore there are no data available for the effectiveness of the measures and for the changes that have taken place in the area. We propose that the monitoring tests should be performed in this area too, similarly to those prescribed for the planned sections too.

In summary, we can establish, that by the additional investigations, and by the submittal of the Environmental Performance Assessment to the environmental authority (and also by its approval according to our hopes) the project is properly prepared from environmental points of view, and the handling of problems, the mitigation of risks have been performed correctly, in a circumspect manner, and to the possible extent.